

GEOCHEMICAL SOIL SURVEY
ON THE
CORTINA GROUP OF CLAIMS, BABINE AREA, B.C.
FOR
NITTETSU MINING COMPANY LIMITED
931/16w

AUGUST 1 - 3 & 14, 1970

LATITUDE 54° 40'N
LONGITUDE 126° 15'W

BY
B.W. SMEE AND R. CAVEN, P.ENG.
BARRINGER RESEARCH LIMITED
1198 WEST PENDER STREET
VANCOUVER, B.C.

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4-137-6	Geochemical Soil Survey - Total Copper	1"=1000'

INTRODUCTION

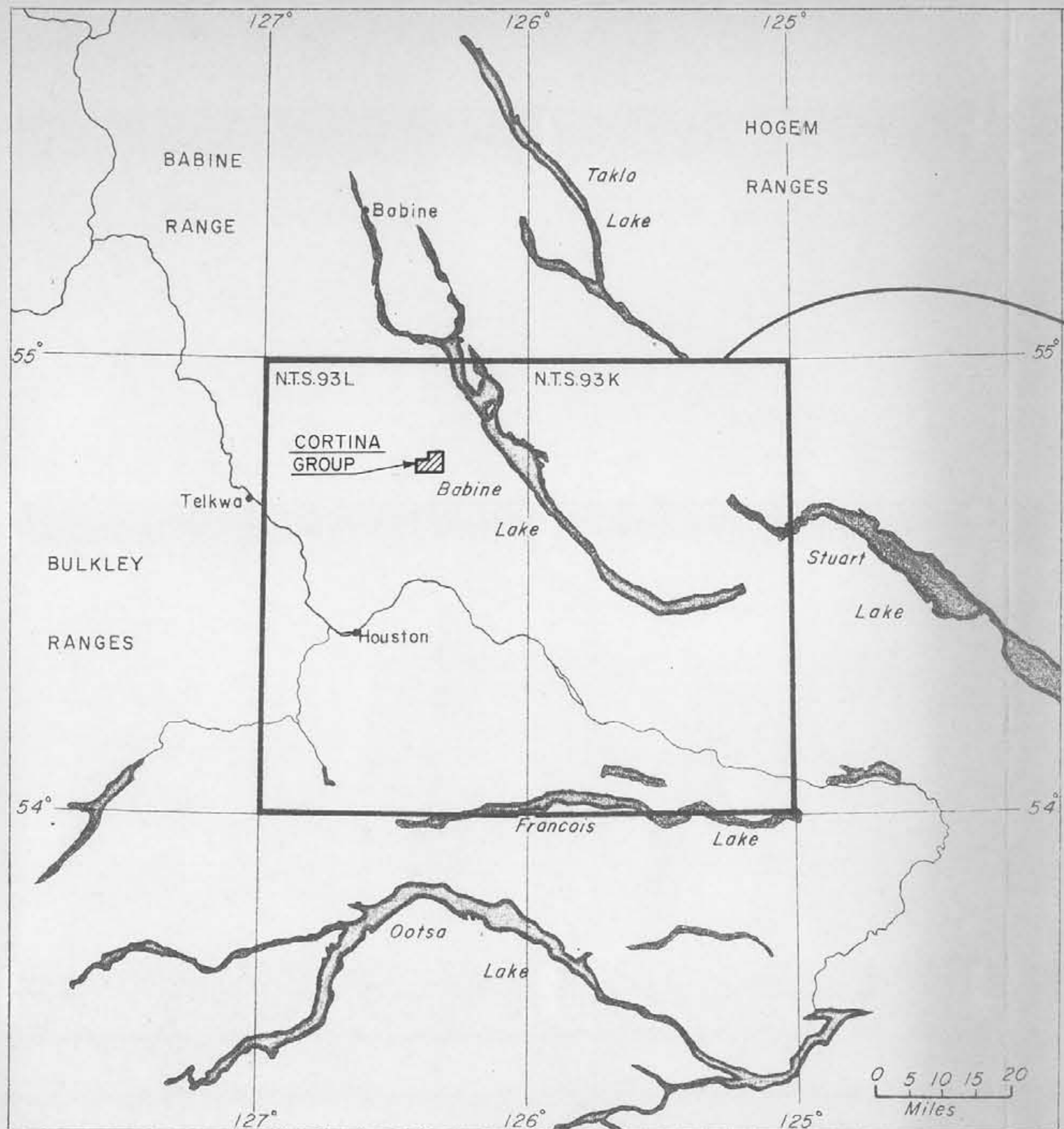
A geochemical reconnaissance soil survey was carried out on the Cortina 1-52 Claims by Barringer Research Limited during the period of August 1st to August 3rd inclusive, and August 14th. Approximately 400 soil and bog bottom samples were collected. The collection was done by G. Rowe of Vancouver, and L. Rasminsky and J. Larway of Toronto.

The Cortina Group is situated approximately 6 miles southwest of Topley Landing, B.C. and is bounded to the north by Fulton Lake. Access is by the Granisle road and a side road which leads down to a camp on Fulton Lake. The area is gently rolling, with stream cut valleys being the main topographic feature of the claim group. Bogs occupy low-lying areas.

The Cortina Group lies within the Jurassic Hazelton Formation of volcanics and sediments. Outcrop is very scarce. The soils vary from a well-drained sandy regosol to a rusty semi-podzol. In all cases, the B horizon was sampled using a grub hoe. The bogs consist of a thick peatlike layer underlain by grey clay. In some instances, the bog bottoms were beyond the reach of the six foot bog augers and could not be sampled. The samples were packed in heavy kraft paper envelopes.

The purpose of this survey was to perform a reconnaissance study at minimum expense to assess the potential value of the Cortina Group. Soil samples were taken on 1,000 foot lines at 400 foot intervals. The bog bottoms were sampled using a tube type auger. Using this spacing, it was felt that broad areas of potential economic mineralization would be recognized, although narrow vein type mineralization could be easily missed. All lines were run by pace and compass.

The soil samples were sent to the Barringer Research Limited Laboratory in Vancouver where they were analysed for total copper. The samples were oven dried, sieved to -80 mesh, and a 0.2 gram cut was taken. The cut was digested in perchloric-nitric acid and analysed using atomic absorption instrumentation. The analysis was performed by Miss Y. Hazeldene.



BW Sme

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2974 MAP #1



Work undertaken by
BARRINGER RESEARCH LTD, Toronto, Canada.

NITTETSU MINING CO. LTD.
CORTINA CLAIM GROUP, BABINE AREA, B.C.
LOCALITY PLAN
NOV. 1970 DWG. 4-137-5

RESULTS (DWG. NO. 4-137-6)

The statistics for the Cortina Group samples are as follows:-

	<u>ppm Cu</u>
Median	20
Std. Dev.	13
Background	0-45
Threshold	45
3rd Order Anomaly	46-65
2nd Order Anomaly	66-85
1st Order Anomaly	> 85

A line was run across the property with samples taken at 100 foot intervals to determine more accurately the background in the Hazelton Formation. The background value of 0-45 ppm copper agrees well with values previously recorded for these rocks. The distribution of values on this property would indicate only one major rock type and little economic mineralization over the claim group.

A series of anomalies extend down the east side of the Cortina Group. There is one first order anomaly of 90 ppm, with the rest being above threshold value (Median + 2 Std. Dev.). These anomalies coincide with a prominent stream valley. It is possible that these anomalies are caused by ground water seepage and precipitation of ions is due to the Eh-pH change from a reducing to an oxidizing environment.

Spot anomalies appear throughout the property, but two appear to warrant a further look. The first spot anomaly of interest appears by the lake in the southwest corner of the property. This sample gave 216 ppm copper. The anomaly may be due to ground water surfacing, and natural organic accumulation, but this should still be proven in the field. The second spot anomaly of interest occurs on the southern most line of the property with a value of 102 ppm copper. This

anomaly has no obvious explanation and should be followed-up.

There are two anomalies consisting of a group of two samples which warrant further work. The first group lies to the north of the above mentioned lake. Although the values are lower than one would expect from economic mineralization, they are not easily explained and should be followed-up. The second group lies on the southern-most line and also does not have an explanation. These should also be followed-up.

RECOMMENDATIONS

1. Samples should be taken at 100 foot intervals along the shore of the lake in the southwest corner of the Cortina Group. These samples should be taken with an auger, and every effort should be made to get below the organic horizon and into the lake bottom sediment. Four east-west lines should be placed at 200 foot intervals on each side of the 216 ppm sample, and these lines plus the original line should be sampled at 100 foot intervals up to the lake on the west side, and for 400 feet to the east of the 216 ppm value.
2. The spot value of 102 ppm on the southern edge of the property should be followed up in a similar fashion. Two lines 200 feet on either side of the sample line should be sampled at 100 foot intervals for 400 feet on either side of the 102 ppm sample. The original line should also be resampled at 100 foot intervals on either side of the anomaly.
3. Two lines at 200 foot intervals should be placed on either side of the group anomalies to the north of the small lake and on either side of the anomaly on the southern-most line. These four lines plus the original should be sampled at 100 foot intervals.

BARRINGER RESEARCH LIMITED

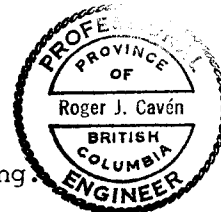
BW Smee

B. W. Smee, Geochemist

December 24, 1970
Vancouver, B. C.

Endorsed by:

Roger J. Caven
R. Caven P. Eng.



COST ESTIMATE FOR THE CORTINA GROUP

Field Work

Mobilization	\$ 175.00
12 man days at \$75.00 per day	\$ 900.00
Plotting, Reporting, Supervision at \$125.00 per day	\$ 250.00
Drafting	\$ 125.00

Laboratory

407 samples at \$1.20	\$ 488.40
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TOTAL COST \$1938.40

Declared before me at the *City*
Unconquered, in the
Province of British Columbia, this *16*
day of *April* 1971, A.D.

Attest

John J. ...
A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.


SUB - MINING RECORDER

C E R T I F I C A T E

I, Barry W. Smee, of the city of Vancouver, in the Province of British Columbia hereby certify:-

1. THAT I am a geochemist employed by Barringer Research Limited, 1198 West Pender Street, Vancouver, British Columbia.
2. THAT I am a graduate of the University of Alberta with the degree of BSc. in geology and chemistry.
3. THAT I am an Associate Member of the Society of Exploration Geochemists.
4. THAT I have held a responsible position in the field of geochemistry for at least one year.

Dated at Vancouver, British Columbia this 24 day of DEC 1970



B. W. Smee

APPENDIX I
LABORATORY REPORTS



BARRINGER RESEARCH

Nittstsu Mining,
404 - 470 Granville Street,
Vancouver 2, B. C.

Geochemical

Laboratory
Report

BARRINGER RESEARCH LIMITED
304 CARLINGVILL W DRIVE
REXDALE, ONTARIO, CANADA
PHONE: 416-677-2491
CABLE: BARESEARCH

DATE August 13, 1970.

Attn: BRL proj. no. 137.34

REPORT NUMBER 153 B

R. J. Jarvis

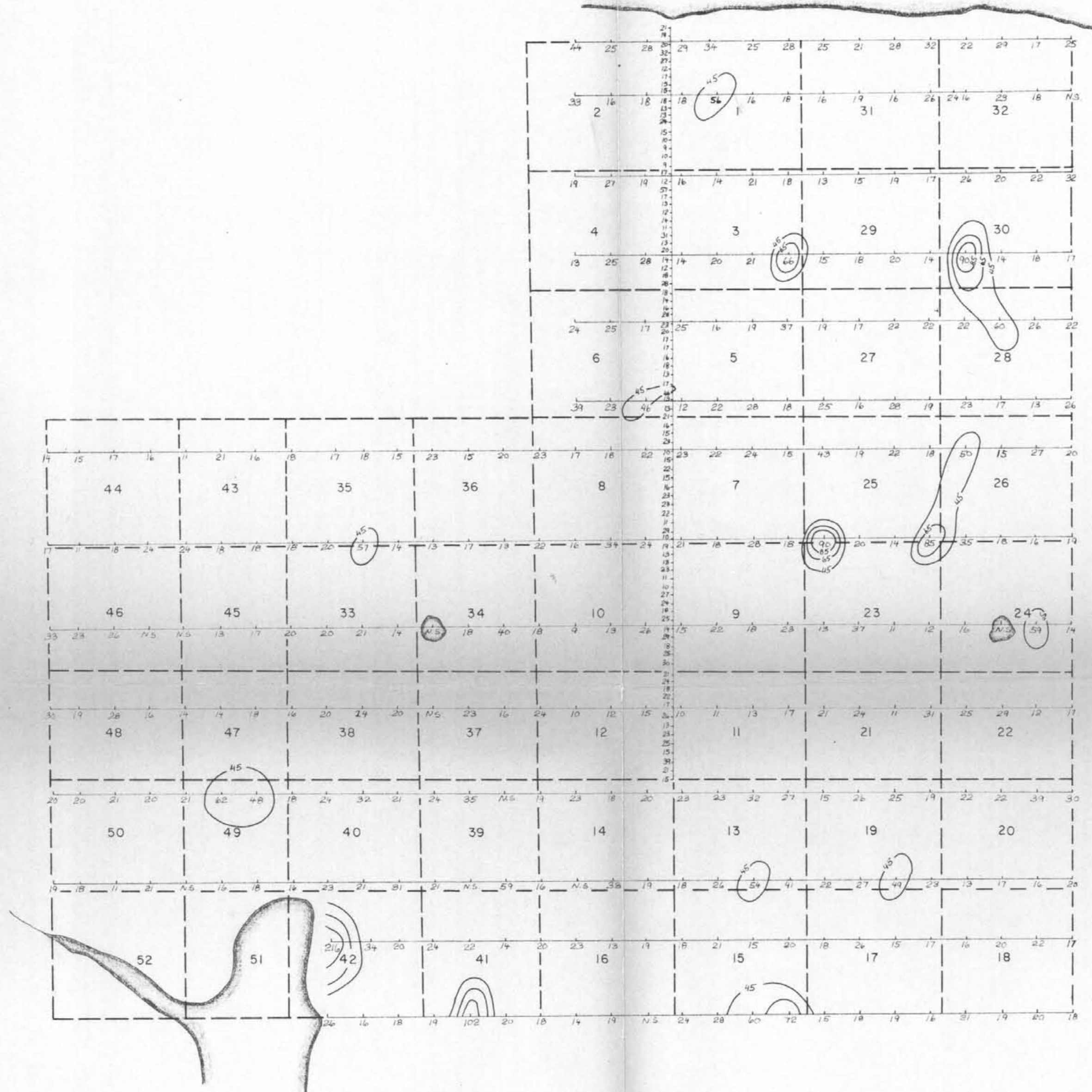
SAMPLE NUMBER	Total Cu ppm		Sample No.	Total Cu ppm		Sample No.	Total Cu ppm		Sample No.	Total Cu ppm
CT 1	25		20	56		39	18		59	18
1A	22		21	16		40	21		60	17
2	17		22	18		41	14		61	22
3	29		23	16		42	16		62	26
4	22		24	19		43	19		63	60
5	32		25	16		44	27		64	22
6	28		26	26		45	19		65	22
7	21		27	16		46	13		66	22
8	25		+175'W 27	24		47	25		67	17
9	28		28	23		48	28		68	19
10	25		29	18		49	24		69	37
11	34		30	N.S.		50	20		70	19
12	29		31	32		51	21		71	16
13	28		32	22		52	66		72	25
14	25		33	20		53	15		73	17
15	44		34	26		54	18		74	25
16	33		35	17		55	20		75	24
17	16		36	19		56	14		76	39
18	18		37	15		57	90		77	23
19	18		38	13		58	14		78	46

Sample No.	Total Cu ppm		Sample No.	Total Cu ppm		Sample No.	Total Cu ppm		Sample No.	Total Cu ppm
79	12		106	16		133	26		+200E 159	27
80	22		107	34		134	13		155E 160	32
81	28		108	24		135	9		161	23
82	18		109	21		136	10		162	23
83	25		110	18		137	12		163	20
84	16		111	28		138	15		164	18
85	28		112	18		139	10		165	23
86	19		113	90		140	11		166	N.S.
87	23		114	20		141	13		100'N 167	33
88	17		115	14		142	17		+75'S 168	19
89	13		116	85		143	21		CT 169	18
90	26		117	35		144	24		170	25
91	20		118	18		145	11		171	54
92	27		119	16		146	31		+100'S 172	41
93	15		120	19		147	25		173	22
94	50		121	14		148	29		174	27
95	18		122	59		149	12		175	49
96	22		123	N.S.		150	17		176	23
97	19		124	16		151	30		177	13
98	43		125	12		A 152	39		178	17
99	15		126	11		B 152	39		179	16
100	24		127	37		+100E 153	22		180	20
101	22		128	13		154	22		181	23
102	22		129	23		155	19		182	20
103	22		130	18		156	25		183	15
104	18		131	22		157	26		184	23
105	17		132	15		158	15		185	15

Sample No.	Total Cu ppm		Sample No.	Total Cu ppm		Sample No.	Total Cu ppm		Sample No.	Total Cu ppm
186	18		213	18		240	24		267	21
187	17		214	N.S.		241	19		268	N.S.
188	18		215	14		242	N.S.	+100'E 269		59
189	16		216	21		243	35		270	16
190	21		217	20		244	24			
191	11		218	20		245	21			
192	16		219	17		246	32			
193	17		220	13		247	24			
194	15		221	N.S.		248	18			
195	14		222	N.S.		249	48			
196	17		223	26	+70'S -100'E 250	62				
197	11		224	23	+30'NW 251	21				
198	18		225	33		252	20			
199	24		226	30		253	21			
200	24		227	19		254	20			
201	18		228	28		255	20			
202	18		229	16		256	19			
203	18		230	14		257	18			
204	20		231	14		258	11			
205	57		232	18		259	21			
206	14		233	16		260	N.S.			
207	13		234	20		261	16			
208	17		235	24		262	18			
209	13		236	20		263	16			
210	22		237	N.S.		264	23			
211	18		238	23		265	21			
212	40		239	16		266	31			

SAMPLE NUMBER	Total Cu ppm		Sample No.	Total Cu ppm		Sample No.	Total Cu ppm		Sample No.	Total Cu ppm
			CT-287	14		CT 314	18		CT 341	13
			288	22		315	15		342	19
			289	24		316	21		343	19
			290	20		317	39		344	29
			291	34		318	15		345	11
			Organic 292	216		319	25		346	22
			Organic Old Bog 293	26		320	23		347	23
			294	16		321	13		348	23
			295	18		322	26		349	16
			296	19		323	17		350	15
			Organic 297	102		324	22		351	22
CT 271	17		298	20		325	18		352	15
272	22		299	18		326	24		353A	10
273	20		300	14		327	21		353B	23
274	16		BOG 301	19		328	30		354	15
275	17		302	N.S.		329	25		355	16
276	15		303	24		330	18		356	21
277	26		304	28		331	29		358	13
278	18		Organic Big road 305	60	East side of	332	14		359	13
279	20		306	72		333	25		360	46
280	15		307	15		334	18		361	17
281	21		308	18		335	24		362	13
282	18		309	19		336	27		363	18
283	19		CLAY 310	16		337	10		364	16
284	13		311	21		338	11		365	17
285	23		312	19		339	23		366	17
286	20		SANDY 313	20		340	13		367	20

Fulton Lake

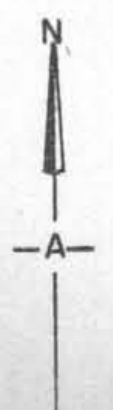


Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2974 MAP #2

2974 HTPS

2974 M-2

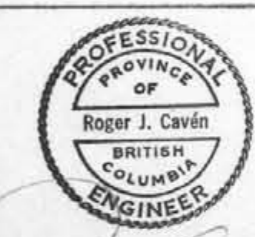
To Accompany Geochemical Report by B.W. Smea
on the Cortina Claim Group, Babine Area, B.C.



LEGEND

- 3* Soil Sample Location & Total Copper (p.p.m.)
- 3*/ Stream Sediment Sample, 0.5N HCl Copper (p.p.m.)
- Background 0 - 45 p.p.m.
- ~45 Threshold 45 p.p.m.
- 65 3rd. Order Anomaly 46 - 65 p.p.m.
- 65 2nd. Order Anomaly 66 - 85 p.p.m.
- 85 1st. Order Anomaly > 85 p.p.m.

B.W. Smea



Roger J. Caven

Work undertaken by
BARRINGER RESEARCH LTD, Toronto, Canada.

NITTETSU MINING CO. LTD.		
CORTINA CLAIM GROUP, BABINE AREA, B.C.		
GEOCHEMICAL SOIL SURVEY TOTAL COPPER		
NOV. 1970	SCALE: 1" = 1000'	DWG. 4-137-6