GEOCHEMICAL REPORT

ON THE

CRIPPLE LAKE PROPERTY

N.T.S. 93 K/16

OMINECA MINING DIVISION

SITUATED AT COORDINATES:
54 DEG 50 MIN N
124 DEG 07 MIN W

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

BY: TERRY CAMPBELL

JULY, 1989

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SUMMARY:

The CL claims were staked to cover potential gold targets in the Cripple Lake area, in light of the recent gold discovery on the TAS property. None of the present base metal geochemistry warrants further follow-up at the present time, but the four gold anomalies require further fill-in lines and closer spaced sampling to confirm gold bearing horizons.

During the 1988 field season, 294 soil samples were collected from two mini grids and one recon soil line. The mini grids consisted of 25 meter sample intervals and 100 meter line spacing. The recon soil line (L11,400E) had a sample interval of 50 meters.

INTRODUCTION:

The CL claims were staked to cover potential gold targets in the Cripple Lake area. The recent gold discovery on the TAS property has spurred exploration and staking in the immediate area. The CL claims were staked by Noranda Exploration personnel between February 26 and April 3 of 1987. During the spring of 1988, a total of 294 B horizon soil samples were collected from two detailed grids and a recon soil line.

This report describes the results of the soil geochem survey.

LOCATION & ACCESS:

The CL property is situated approximately 50 kilometres due north of the town of Fort St. James. The CL claims straddle Tezzeron Creek immediately south of Cripple Lake.

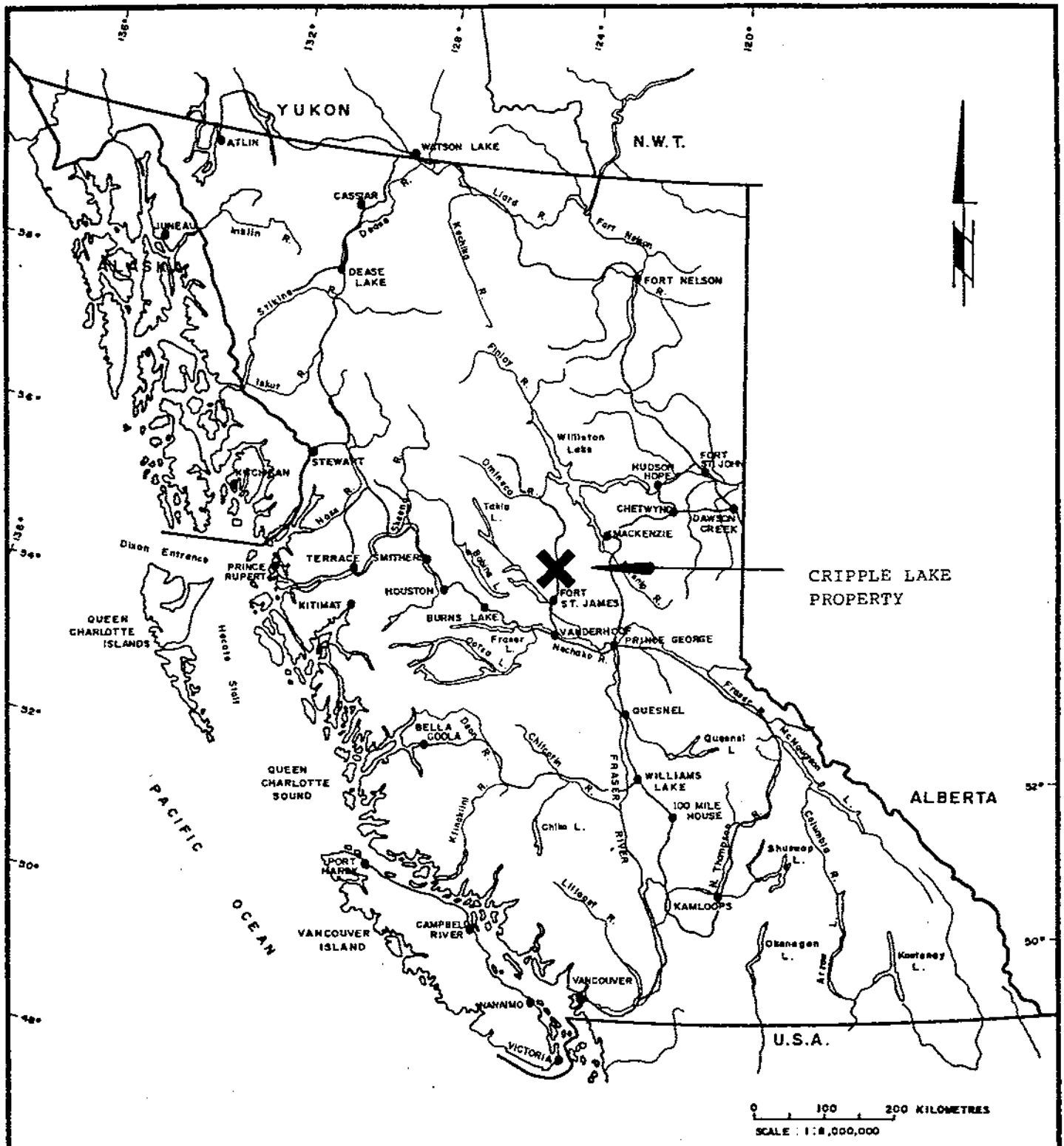
The claims are directly accessible from the Germansen Road which cuts across the northwest half of the property. Numerous logging roads and clear-cut provide more local access.

The claims are found on NTS map 93 K/16 centred at 54 degrees 50 minutes North and 124 degrees 07 minutes West.

CLAIM STATISTICS:

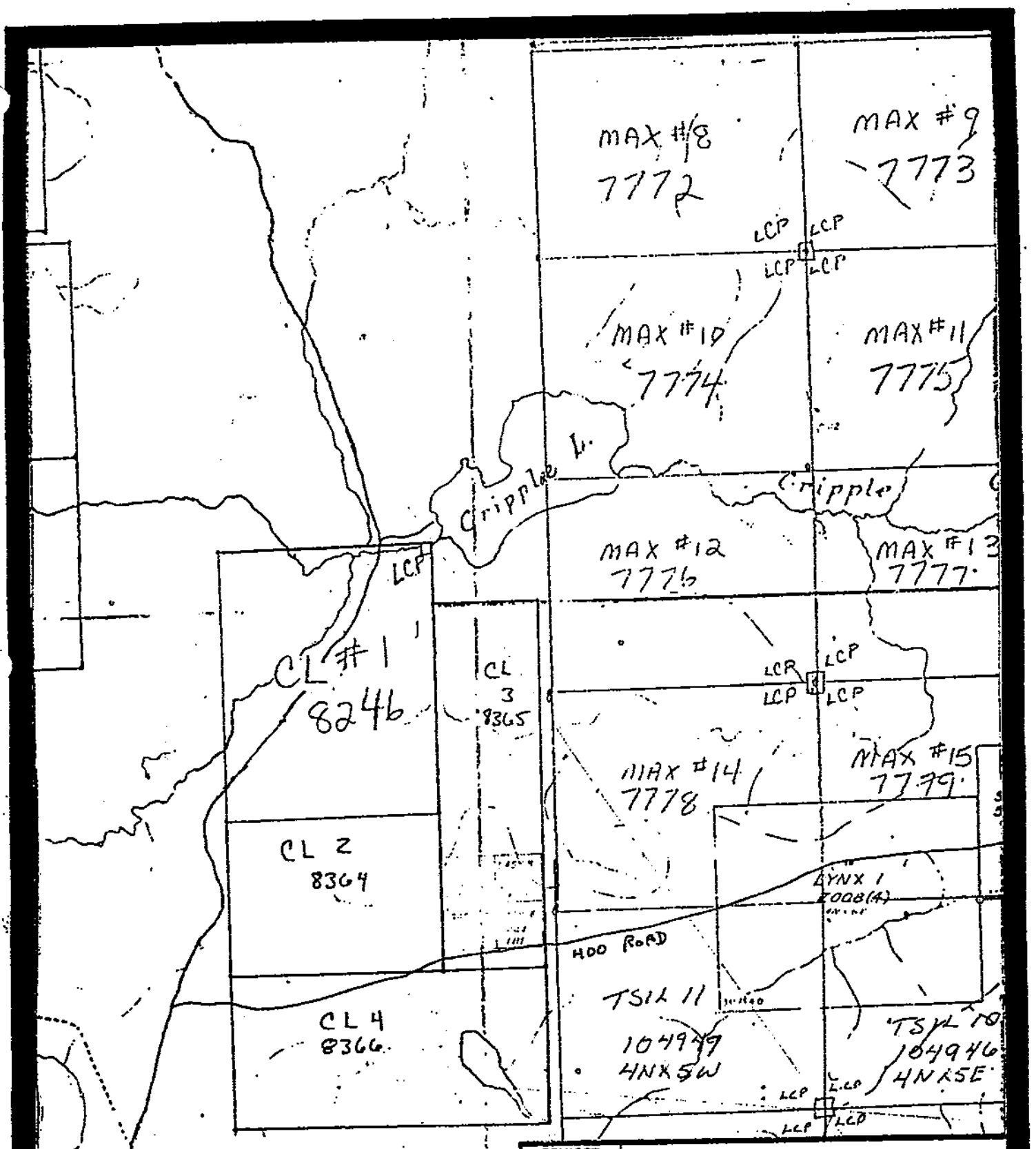
The CL claims are all modified grid type claims found on claim map 93 K/16 East, in the Omineca Mining Division.

CLAIM NAME	# UNITS	RECORD #	RECORD DATE	GROUP
CL 1	20	8246	Mar 24	Cripple Lake
CL 2	12	8364	April 22	Cripple Lake
CL 3	14	8365	April 22	Cripple Lake
CL 4	18	8366	April 22	Cripple Lake



REVISED	Cripple Lake
	Location Map
PROJ. No. 283	SURVEY BY: G. Maxwell DATE: June 1988
N.T.S. 93K16	DRAWN BY: S.K.B. SCALE: 1:8,000,000
DWG. No. 1	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

VANCAL 11827



REVISED	CRIPPLE LAKE
	CLAIM MAP
PROJ No. 283	SURVEY BY: G. Maxwell DATE: June 1988
N.T.S. 93K16	DRAWN BY: G. Maxwell SCALE: 1:50,000
DWG. No. 2	NORANDA EXPLORATION
	OFFICE: Prince George

TOPOGRAPHY & VEGETATION:

The area is characterized by pine flats, lower swampy areas and outcrop knolls. The pine flat areas generally consist of stratified till, gravel and sand plains and small eskers. The swampy areas are usually low lying ground around Tezzeron and Cripple Creek. The outcrop knolls appear to be areas of more resistant rock producing a hummocky terrain.

Vegetation consists of mature stands of spruce, pine and fir, which is presently being logged off in some areas. Undergrowth is mainly alder with some devils club.

REGIONAL GEOLOGY:

The area has most recently been described by J.E. Armstrong in G.S.C. Memoir 252, Fort St. James Map-Area in 1949. The area has also been covered on G.S.C. Map 971A by H.M.A. Rice in 1949 (Geology of Smithers-Fort St. James Area).

The CL claims lies in a broad northwest trending package of rocks knows as the Quesnel Trough. These include Upper Triassic to Lower Jurassic Takla Group volcanics and sediments which have been intruded by a series of felsic to ultramafic stocks and batholiths, ranging in age from Upper Triassic to Lower Cretaceous.

The area is cut by numerous fault structures usually trending northwest, parallel to the Pinchi Fault. These may be sub-parallel splay faults with tensional or transverse structures trending east-west.

GEOCHEMISTRY:

METHOD

A total of 294 "B" horizon soil samples were collected using soil augers. The samples were placed in Kraft wet-strength paper bags, dried, then shipped to Noranda Labs in Vancouver, B.C., for analysis (for analytical procedure, see Appendix III). Samples were analyzed for copper and gold; results are plotted on 1:5,000 scale maps in rear pockets.

OBSERVATIONS

Creek Grid:

Gold values range from 5 to 170 ppb, with values greater than 20 ppb considered anomalous. Anomalous samples are listed as follows:

LOCATION	AU (ppb)
L8800E 10275N	170
10275N	30
L9100E 10350N	30
L9400E 10500N	40
10850N	95
10900N	35
11000N	35
L9600E 10550N	25
L9700E 10350N	80

Copper values range from 18 to 120 ppm, with values greater than 100 ppm considered anomalous. Anomalous samples are listed as follows:

LOCATION	CU (ppm)
L9000E 10175N	110
L9400E 10050N	120
L9600E 10450N	114
L9700E 10000N	120

Clearcut Grid:

Gold values range from 10 to 430 ppb, with values greater than 20 ppb considered anomalous. Anomalous samples are listed below:

LOCATION	AU (ppb)
L10800E 10225N	430

No copper anomalies on the Clearcut grid.

L11400E:

Copper values range from 18 to 110 ppm, with values greater than 100 ppm considered anomalous. Anomalous samples are listed below:

LOCATION	CU (ppm)
L11400E 9050N	110

CONCLUSIONS:

Most of the gold anomalies on the Creek Grid are concentrated in three areas. These anomalous areas should be regarded as good potential gold targets.

There are three linear gold anomalies and three scattered isolated anomalous values on the Creek Grid. The anomalies trend roughly east-west. The anomalous areas should be regarded as good gold targets. There is one isolated anomalous value located on the Clearcut Grid, found on L10800E and requires more soiling to locate any further anomalous zones.

The copper values are scattered and isolated throughout the grid. The low values are not enough to indicate economic copper mineralization on the property.

RECOMMENDATIONS:

1. Compass and flag lines 100 meters apart around anomalous areas on the Creek and Clearcut grids.

2. Soil sample around anomalous values.

3. Conduct a magnetometer survey over the Clearcut and Creek grids.

APPENDIX I

STATEMENT OF COSTS

GEOCHEMICAL REPORT
CRIPPLE LAKE PROPERTY

1. WAGES:

Soil Geochemistry - 7 md @ $100/day	$ 700.00
Linecutting - 5 md @ $100/day	$ 500.00

2. FOOD, ACCOMMODATIONS & TRANSPORTATION:

12 md @ $50/day	$ 600.00

3. ANALYSIS:

294 samples @ $8.75 per sample	$ 2,572.50

4. TRUCK RENTAL:

12 md @ $50/day	$ 600.00

5. COST OF REPORT PREPARATION:

Author	$200	
Drafting	$200	
Typing	$ 50	$ 450.00
		$ 5,422.50

APPENDIX II

STATEMENT OF QUALIFICATIONS

I, Terrence Campbell, of Prince George, Province of British Columbia, do hereby certify that:

1. I am a geologist residing at 7740 Gladstone Drive, Prince George, British Columbia.

2. I am a 1985 graduate of the University of British Columbia, B.Sc. (Geology).

3. I am a member in good standing of the British Columbia Yukon Chamber of Mines.

4. I presently hold the position of Field Geologist with Noranda Exploration Company, Limited (no personnal liability) and have been in their emoloy since 1986.

Terrence Campbell

APPENDIX III

ANALYTICAL METHOD DESCRIPTIONS FOR GEOCHEMICAL ASSESSMENT REPORTS

Revised:01/86

The methods listed are presently applied to analyse geological materials by the Noranda Geochemical Laboratory at Vancouver. (March, 1984)

Preparation of Samples

Sediments and soils are dried at approximately 80°C and sieved with a 80 mesh nylon screen. The -80 mesh (0.18 mm) fraction is used for analysis.

Rock specimens are pulverized to -120 mesh (0.13 mm). Heavy mineral fractions (panned samples) are analysed in its entirety, when it is to be determined for gold without further sample preparation. See addendum.

Analysis of Samples.

Decomposition of a 0.200 g sample is done with concentrated perchloric and nitric acid (3:1), digested for 5 hours at reflux temperature. Pulps of rock or core are weighed out at 0.2 g or less depending on the matrix of the rock, and twice as much acid is used for decomposition than that is used for silt or soil.

The concentrations of Ag, Cd, Co, Cu, Fe, Mn, Mo, Ni, Pb, V and Zn (all the group A elements of the fee schedule) can be determined directly from the digest (dissolution) with an atomic absorption spectrometer (AA). A Varian-Techtron Model AA-5 or Model AA-475 is used to measure elemental concentrations.

Elements Requiring Specific Decomposition Method

Antimony - Sb: 0.2 g sample is attacked with 3.3 mL of 6% tartaric acid, 1.5 mL conc. hydrochloric acid and 0.5 mL of conc. nitric acid, then heated in a water bath for 3 hours at 95° C. Sb is determined directly from the acid solution with an AA-475 equipped with electrodeless discharge lamp (EDL).

Arsenic - As: 0.2 - 0.4 g sample is digested with 1.5 mL of 70 % perchloric acid and 0.5 mL of conc. nitric acid. A Varian AA-475 equipped with an As-EDL measures the arsenic concentration of the digest.

Barium - Ba: 0.1 g sample is decomposed with conc. perchloric, nitric and hydrofluoric acid. Atomic absorption using a nitrous oxide-acetylene flame determines Ba from the aqueous solution.

Bismuth - Bi: 0.2 g - 0.3 g is digested with 2.0 ml of perchloric 70% and 1.0 ml of conc. nitric acid. Bismuth is determined directly from the digest into the flame of the AA instrument c/w EDL.

Gold - Au: 10.0 g sample (Pan-concentrates see below) is digested with aqua regia (1 part nitric and 3 parts hydrochloric acid). Gold is extracted with Methyl iso-Butyl ketone (MIBK) from the aqueous solution. Gold is determined from the MIBK solution with flame AA.

Magnesium - Mg: 0.05 - 0.10 g sample is digested with 4 ml perchloric/nitric acid (3:1). An aliquot is taken to reduce the concentration to within the range of atomic absorption. The AA-475 with a nitrous oxide flame determines Mg from the aqueous solution.

Tungsten - W: 1.0 g sample sintered with a carbonate flux and thereafter leached with water. The leachate is treated with potassium thiocyanate. The yellow tungsten thiocyanate is extracted into tri-n-butyl phosphate. This permits colourimetric comparison with standards to measure tungsten concentration.

Uranium - U: An aliquot, taken from a perchloric-nitric (3:1) decomposition, usually from the multi-element digestion, is diluted with water and a phosphate buffer. This solution is exposed to laser light, and the luminescence of the uranyl ion is quantitatively measured on the UA-3 (Scintrex).

LOWEST VALUES REPORTED IN PPM

Ag - 0.2	Mn - 20	Zn - 1	Au - 0.01 (10PPB)
Cd - 0.2	Mo - 1	Sb - 1	W - 2
Co - 1	Ni - 1	As - 1	U - 0.1
Cu - 1	Pb - 1	Ba - 10	
Fe - 100	V - 10	Bi - 1	

NORANDA VANCOUVER LABORATORY

PROPERTY/LOCATION: STUART GOLD CODE : 8806-067

Project No. : 283 Sheet: 1 of 11 Date rec'd: JUN23
Material : 572 SOILS Geol. : G. M. Date compl: JUL11
Remarks :

Values in PPM, except where noted.

T.T. No.	SAMPLE No.	Cu	PPB Au
65	L 10800E 9950	20	10
66	9975	18	10
67	10000	20	20
68	10025	28	10
69	10050	38	10
70	10075	20	10
71	10100	20	10
72	10125	16	10
73	10150	16	10
74	10175	20	10
75	10200	16	10
76	10225	24	430
77	10250	18	10
78	10275	22	10
79	10300	26	10
80	10325	20	10
81	10800E-10350N	32	10
111	10900E 9950	18	10
112	9975	22	10
113	10000	20	10
114	10025	18	10
115	10050	20	10
116	10075	28	10
117	10100	22	10
118	10125	16	10
119	10150	16	10
120	10175	34	10
121	10200	18	10
122	10225	20	10
123	10250	22	10
124	10275	18	10
125	10300	18	10
126	10325	18	10
127	10900E-10350N	28	10
143	11000E 9975	26	10
144	10075	18	10
145	10125	22	10
146	10175	24	10
147	10225	20	10
148	10275	44	10
149	11000E-10325N	28	10

T.T. No.	SAMPLE No.	Cu	Zn	Pb	Ag	As	PPB Au
11	11100E-9950N SOIL	42	120	2	0.4	8	10
12	11100E-9975N	22	60	2	0.2	6	10

T.T. No.	SAMPLE No.		Cu	Zn	Pb	Ag	As	PPB Au	8807-016 Pg. 2 of 2
13	11100E-10000N		20	66	2	0.2	1	10	
14	10025		16	82	1	0.2	1	10	
15	10050		20	94	2	0.2	1	10	
16	10075		44	110	2	0.2	2	10	
17	10125		24	80	2	0.2	1	10	
18	10150		16	64	1	0.2	1	10	
19	10175		22	66	1	0.2	4	10	
20	10200		26	100	1	0.2	1	10	
21	10225		18	82	4	0.2	2	10	
22	10250		22	82	2	0.2	1	10	
23	10275		20	60	1	0.2	1	10	
24	10300		18	60	1	0.2	1	10	
25	10325		24	78	2	0.2	1	10	
26	11100E-10350N		28	66	1	0.2	8	10	
27	11200E-9950N		20	74	1	0.2	10	10	
28	9975		28	88	2	0.2	6	10	
29	10000		56	130	2	0.4	14	10	
30	10025		24	94	2	0.2	12	10	
31	10050		18	62	1	0.2	1	10	
32	10075		22	76	2	0.2	1	10	
33	10100		18	82	1	0.2	1	10	
34	10125		24	78	1	0.2	1	10	
35	10150		28	72	2	0.2	1	10	
36	10200		50	78	2	0.2	6	10	
37	10325		34	130	2	0.2	6	10	
38	11200E-10350N	SOIL	22	78	1	0.2	1	10	

T. T. No.	SAMPLE No.	PPB Cu	PPB Au
43	11400E-7400N	24	10
44	7450	20	10
45	7500	24	10
46	7550	22	20
47	7600	24	10
48	7650	26	10
49	7700	24	10
50	7750	26	10
51	7800	62	10
52	7850	30	10
53	7900	30	10
54	7950	22	20
55	8000	24	10
56	8050	24	10
57	8100	18	10
58	8150	34	10
59	8250	18	10
60	8300	20	10
61	8350	18	10 CV
62	8400	20	10
63	8450	48	10 ?
64	8500	44	10
65	8700	50	10
66	8750	32	10
67	8800	58	10
68	8850	34	10
69	8900	44	10
70	8950	20	10
71	9000	74	10
72	11400E-9050N	110	10
73	11400E-9100N	44	20 CL
74	9150	36	10
75	11400E-9200N	52	10

NORANDA VANCOUVER LABORATORY

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PROPERTY/LOCATION:STUART Au (CRIPPLE LAKE) CODE : 8901-001

Project No. :283 Sheet:1 of 3 Date rec'd:DEC. 12
Material :154 SOILS Geol.:G. M. Date compl:DEC. 16
Remarks :

Values in PPM, except where noted.

T. T. No.	SAMPLE No.	Cu	Zn	Pb	Ag	PPB Au
2	8800E-10125N	20	130	1	0.2	5
3	10150	30	84	2	0.2	5
4	10225	22	54	2	0.2	5
5	10250	24	170	2	0.2	5
6	10275	18	100	2	0.2	170
7	10300	32	64	1	0.2	5
8	8800E-10450N	76	72	1	0.2	5
9	8900E-10150N	30	100	1	0.2	5
10	10175	26	190	1	0.2	5
11	10200	30	120	2	0.2	5
12	10225	28	100	2	0.2	5
13	10250	30	180	2	0.4	5
14	10275	48	110	2	0.2	5
15	10300	30	94	2	0.2	10
16	10325	28	140	1	0.2	10
17	10350	32	92	2	0.2	5
18	10375	38	56	1	0.2	5
19	10400	50	100	4	0.2	5
20	10425	28	110	1	0.2	5
21	8900E-10450N	28	120	2	0.2	5
22	9000E-10125N	38	64	1	0.2	15
23	10175	110	140	2	1.2	5
24	10225	32	60	1	0.2	5
25	10275	36	92	1	0.2	30
26	10325	18	130	1	0.2	5
27	10375	40	120	1	0.4	5
28	9000E-10425N	32	100	1	0.2	5
29	9100E-10100N	18	120	1	0.2	5
30	10125	32	58	1	0.2	5
31	10150	26	70	4	0.2	5
32	10175	22	140	4	0.2	5
33	10200	36	82	4	0.2	5
34	10225	30	100	2	0.2	10
35	10275	38	64	2	0.2	5
36	10300	28	70	2	0.2	5
37	10325	28	88	2	0.2	5
38	10350	28	120	2	0.2	30
39	10375	40	100	2	0.2	5
40	10400	26	110	2	0.2	5
41	10425	38	120	4	0.8	5
42	9100E-10450N	32	68	4	0.2	5
43	9200E-10025N	30	100	4	0.2	5
44	10200	38	60	2	0.2	5
45	10225	38	50	2	0.2	5
46	10250	24	120	2	0.2	5
47	10275	34	130	2	0.2	10
48	10300	36	82	4	0.2	5
49	9200E-10325N	24	120	2	0.2	5

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T.T. No.	SAMPLE No.	Cu	Zn	Pb	Ag	PPB Au	8901-001 Pg. 3 of 3
107	9600E-10000N	38	76	2	0.2	5	
108	10025	36	96	4	0.2	5	
109	10050	32	88	4	0.2	5	
110	10075	34	70	2	0.2	5	
111	10100	32	76	2	0.2	5	
112	10125	36	70	2	0.2	5	
113	10150	40	88	4	0.2	5	
114	10175	36	82	2	0.2	5	
115	10200	36	80	2	0.2	5	
116	10225	40	80	4	0.2	20	
117	10525	34	92	2	0.2	5	
118	10550	24	100	4	0.2	25	
119	10575	36	78	4	0.2	5	
120	10600	28	78	2	0.2	5	
121	10625	56	100	4	0.2	5	
122	10650	38	82	2	0.2	5	
123	10675	28	100	4	0.2	5	
124	10700	40	72	2	0.2	5	
125	10725	44	84	2	0.2	5	
126	10750	36	88	2	0.2	5	
127	10775	40	110	4	0.2	5	
128	10800	50	100	2	0.2	5	
129	10825	38	80	2	0.2	5	
130	10850	60	88	2	0.2	15	
131	10875	38	98	2	0.2	5	
132	9600E-10900N	36	78	2	0.2	5	
133	9700E-10000N	120	78	2	0.4	10	
134	10025	24	88	2	0.2	5	
135	10050	34	94	1	0.2	20	
136	10100	38	90	2	0.2	5	
137	10125	38	88	2	0.2	5	
138	10150	34	80	1	0.2	5	
139	10175	42	84	2	0.2	5	
140	10200	40	86	2	0.2	5	
141	10225	38	80	2	0.2	5	
142	10250	36	80	1	0.2	5	
143	10275	36	76	2	0.2	5	
144	10300	36	90	1	0.2	5	
145	10325	36	82	1	0.2	5	
146	10350	36	84	2	0.2	80	
147	10375	38	90	1	0.2	15	
148	10400	38	72	2	0.2	10	
149	10425	36	76	1	0.2	10	
150	CHECK NL-6	52	150	68	1.2	-	
151	10450	44	74	2	0.2	5	
152	10475	52	130	2	0.2	10	
153	10500	38	78	1	0.2	5	
154	10525	34	70	1	0.2	5	
155	10550	32	74	1	0.2	10	
156	10575	70	90	1	0.2	10	
157	9700E-10600N	32	60	1	0.2	5	

T. T. No.	SAMPLE No.	Cu	Zn	Pb	Ag	PPB 8901-001 Au Pg. 2 of 3
50	9200E-10350N	26	66	2	0.2	5
51	10425	22	58	2	0.2	5
52	9200E-10450N	40	80	2	0.2	5
53	9300E-10300N	46	82	4	0.2	5
54	10350	66	110	4	0.6	5
55	10375	30	130	2	0.2	5
56	10425	70	140	4	0.4	5
57	10450	26	56	2	0.2	5
58	10475	32	60	2	0.2	5
59	10500	32	74	2	0.2	5
60	10525	26	120	2	0.2	5
61	10550	24	110	4	0.2	5
62	10575	40	80	2	0.2	5
63	10650	38	100	1	0.2	5
64	10675	26	54	2	0.2	5
65	10700	24	62	2	0.2	5
66	10725	36	72	2	0.2	5
67	10750	30	74	2	0.2	5
68	10775	26	88	4	0.2	5
69	10800	36	94	2	0.2	5
70	10825	30	80	2	0.2	5
71	10875	30	52	2	0.2	5
72	10900	18	82	2	0.2	5
73	10925	18	58	2	0.2	5
74	10950	24	130	4	0.2	5
75	10975	24	68	2	0.2	5
76	9300E-11000N	22	68	1	0.2	5
77	9400E-10000N	42	82	2	0.2	5
78	10025	38	90	4	0.2	5
79	10050	120	110	2	0.4	5
80	10075	48	120	2	0.2	5
81	10100	42	100	2	0.2	5
82	10375	42	62	2	0.2	5
83	10400	18	130	2	0.2	5
84	10425	26	98	2	0.2	5
85	10450	32	86	2	0.4	5
86	10475	34	100	2	0.2	5
87	10500	38	80	2	0.2	40
88	10525	26	82	1	0.2	5
89	10550	32	94	1	0.2	5
90	10575	22	92	1	0.2	5
91	10600	26	92	1	0.2	5
92	10625	36	100	2	0.2	5
93	10650	30	98	1	0.2	5
94	10675	28	88	1	0.2	5
95	10725	32	70	2	0.2	5
96	10750	30	74	1	0.2	5
97	10775	36	66	1	0.2	5
98	10800	40	66	1	0.2	20
99	10825	22	52	2	0.2	5
100	CHECK NL-6	50	140	64	1.0	-
101	10850	34	80	4	0.2	95
102	10900	32	66	4	0.2	35
103	10925	18	68	2	0.2	5
104	10950	26	64	2	0.2	5
105	10975	24	58	2	0.2	5
106	9400E-11000N	34	52	2	0.2	35

L 8,800 E. L 8,900 E. L 9,000E. L 9,100E. L 9,200E. L 9,300 E. L 9,400 E. L 9,500 E. L 9,600 E. L 9,700 E. L 10,000 E. L 10,500 E. L 10,800E. L 10,900E. L 11,000E. L 11,100 E. L 11,200E.

CRIPPLE LAKE

CREEK

TEZZERON

CL 1

CL 2

CL 3

CL 4

L.C.P.

11,000 N.

10,500N

B./L. 10,000N. Az. 090°

9,500N.

9,200 N.

9,000 N.

8,500 N.

8,000N.

7, 500 N

7,000N.

L 11,400 E.

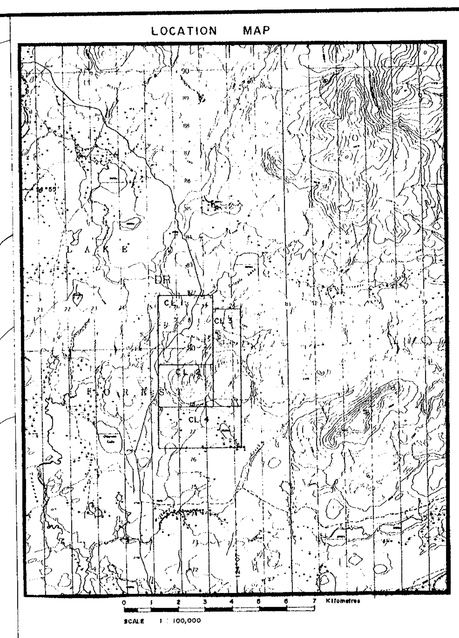
3000

54° 51'

124° 09'

To Fort St James 57 km

LOCATION MAP



LEGEND

20/10 Soil Geochem Survey Cu(ppm), Au(ppb)

GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,906

SCALE 1 5,000 (0 100 200 300 400 500 metres)

REVISED April 1989, S.K.B.	STUART LAKE GOLD
	CL CLAIMS
	SOIL GEOCHEM SURVEY
	Cu(ppm); Au(ppb)
PROJ. No. 283	SURVEY BY: DATE:
N.T.S. 93K/16	DRAWN BY: S.K.B. SCALE: 1:5,000
DWG. No. FIG. 3	NORANDA EXPLORATION
	OFFICE PRINCE GEORGE, B.C.