ASSESSMENT REPORT

Geological and Geochemical Survey on the Criss 1 and 2 Mineral Claims

Kamloops Mining Division

Latitude: 50°45'N, Longitude: 120°55'W

N.T.S. 92I/15W

Owner and Operator: Noranda Exploration Company, Limited
(No Personal Liability)
Vancouver, B.C.

Author : G. Shevchenko, Project Geologist
Noranda Exploration Company, Limited

Date : December 23, 1987

TABLE OF CONTENTS

APPENDICES

LIST OF DRAWINGS

1.0 INTRODUCTION

This assessment report encompasses the geological and geochemical surveys conducted on the Criss 1 and Criss 2 mineral claims located in the Kamloops Mining Division.

The work was done between June 2 and June 17, 1987, for a total of 39 mandays.

The geological mapping was conducted by Bruce Laird and Chris Wild.

1.1 LOCATION AND ACCESS (Drawing #1)

The property, located 18.5 Km NNW of Savona, B.C., is centered at 50°45' N. latitude, 120°55'W longitude and may be found on N.T.S. 92I/15W. The claims straddle the Criss Creek valley midway between the Deadman River and Sparks Creek.

From Savona, access to the property is west along the Trans Canada Highway for 5 Km, north along the Deadman River Road for 12 Km, and northeast along the Criss Creek Road for 5.5 Km where it intersects the claim boundary. The roads are in good condition year around.

1.2 TOPOGRAPHY AND PHYSIOGRAPHY

The property straddles the Criss Creek valley with elevations ranging from 700 m. a.s.l. to 1200 m. a.s.l. The topography varies from steep slopes in the valley to gentle undulating terrain in the upper elevations.

For the most part, the area is covered by a thick package of glacial till as evidence by the numerous deeply incised creek valleys and the general lack of rock exposure.

Vegetation mainly consists of an open pine and spruce forest with little or no underbrush.

1.3 PREVIOUS WORK

The ground, over which the Criss Claims lie, has a relatively short work history. Placer Development Ltd. conducted a soil geochemical survey during the early 1980's. In 1984, Packard Resources Ltd. conducted a soil geochemical and prospecting survey.

The adjoining Cayuse Claim, however, has a much longer exploration history, beginning with the staking of its cinnibar showings in 1896. In 1929 the ground was re-staked by the Mercury Mining Syndicate of Vancouver, B.C. and worked until 1928 during which time short adits were driven into showings. Assays of 8.22 oz/T Ag were reported. In 1972, Andex Mines Ltd. conducted geological and geochemical surveys as well as drilling one short hole. Asarco Exploration Company of Canada Ltd. took over the claims in 1983 and conducted a soil geochemical survey.

1.4 CLAIM STATUS

CLAIM NAME	RECORD #	UNITS	ANNIVERSARY DATE
CRISS 1	6795	12	September 26
CRISS 2	6796	10	September 26
		22	

The above Criss Claims are 100% owned by Noranda Exploration Co., Ltd. (N.P.L.).

1.5 ECONOMIC POTENTIAL

The Criss Creek area represents a favourable environment for epithermal type Au-Ag mineralization as evidenced by the various cinnabar and/or stibnite occurrences and the presence of clay altered quartz-carbonate breccia.

1.6 SUMMARY OF WORK DONE

Noranda Exploration conducted soil geochemical and mapping surveys between June 2 and June 17, 1987 (incl.) for a total of 39 mandays.

A total of 15 line kilometers of grid was established with a line spacing of 100 meters in the central portion of the grid, and 200 meters on the peripheral portion. The station interval is 25 meters and the orientation of the baseline is 128°.

Wherever possible, all stations on the grid were soil sampled to the B-horizon. The samples were analyzed for gold, arsenic, antimony and cadmium.

The grid was mapped at a scale of 1:5000.

2.0 GEOLOGICAL SURVEY

Geological mapping has been restricted to the gridded area and was done at a scale of 1:5000. The property geology map is found on Drawing #2.

2.1 REGIONAL GEOLOGY

The area is underlain by a northwest trending belt of Upper Triassic and Lower Jurassic volcaniclastic and sedimentary rocks (considered to be part of the Quesnel Trough: Campbell and Tipper, 1970), which has been covered in broad regions by Eocene volcanics and sediments, and by Miocene-Pliocene plateau lavas.

The trough is host to numerous mineral occurrences and deposits. Copper-molybdenum mineralization is mainly associated with granitic intrusions, and copper-gold mineralization is found occurring with alkalic intrusive or volcanic activity.

2.2 PROPERTY GEOLOGY

The exposure on the grid which is mainly restricted to road cuts and creek banks, amounts to about 5 to 10%.

The property is underlain by Triassic Nicola Group volcanics and sediments ranging from, felsic and lithic tuffs to andesitic tuffs and thin isolated limestones. These are intruded by an equigranular granite believed to be part of the cretaceous or tertiary copper creek intrusions. Numerous basaltic dykes cut the intrusive and are likely feeders to the overlying olivine basalts.

Several narrow (0.5 - 3 metre) northwest trending shears occur on the property and are comprised of quartz-carbonate breccia with clay altered fragments. A few bedding orientations taken suggest the volcanics and sediments are near vertically dipping and trend northwest.

No significant sulphide or gold mineralization was found on the property, however, a favourable host rock (clay altered, quartz-carbonate breccia) does occur along northwest trending shear zones.

3.0 GEOCHEMICAL SURVEY

3.1 SOIL SAMPLING AND ANALYTICAL METHOD

Soil samples were obtained by digging holes with a shovel to a depth of 10 to 30cm. Wherever possible, B-horizons were sampled and placed in "Hi Wet Strength Kraft 3 1/2" x 6 1/8" Open End envelopes". Grid co-ordinates were marked on the envelopes with a permanent ink felt marker.

The soil samples were dried at approximately 80°C and then sieved with a -80 mesh nylon screen. The -80 mesh (0.18mm) fraction was then used for geochemical analysis.

Sb: 0.2 grams of -80 mesh material is digested with aqua regia and tartaric acid. The resulting solution is analyzed using an AA-475 Atomic Absorption Spectrometer.

As, Cd: 0.2 grams of -80 mesh material is digested in a mixture of concentrated perchloric acid and nitric acid (3:1) at reflux temperature for 6 hours. The resulting solution is analyzed using an AA-475 Atomic Absorption Spectrometer.

Au: 10.0 grams of -80 mesh material is digested with aqua regia (one part nitric acid and 3 parts hydrochloric acid). The resulting solution is subjected to MIBK (Methylisobutyl Ketone) extraction, and then analyzed for parts per billion (ppb) gold using an AA-475 Atomic Absorption Spectrometer.

3.2 PRESENTATION OF RESULTS

The geochemical values may be found on drawings #3 and #4 as well as in Appendix I.

Symbol plots for gold and arsenic are found on drawings #5 and #6 respectively. Symbol plots for cadmium and antimony do not exist as the results are not anomalous.

All geochemical maps are at a scale of 1:5000.

3.3 DISCUSSION OF RESULTS

A total of 368 samples were taken and analyzed for Cd, Sb, As and Au.

Arsenic (As) : Values range from 1 to 500 ppm with an average of 11.9 ppm and a standard deviation of 30.5 ppm.

There are six spot-anomalies which have little or no latteral continuity. The area of greatest significance is located at the southern end of lines 22400E and 22500E. Here there is a small anomaly 100m long by 25m wide which has values ranging from 88 to 500 ppm.

Cadmium (Cd) : The values range from 0.2 to 1.2 ppm and average 0.2 ppm. The results are insignificant and warrant no further discussion.

Antimony (Sb): The values range from 1.0 to 16.0 ppm with an average of 1.9 ppm and a standard deviation of 1.4. For the most part the results portray background values, and thus warrant no further discussion.

Gold (Au) : The values range from 10 to 70 ppb with an average of 10.2 ppb and a standard deviation of 4.6 ppb.

There are eight stations with values greater than 20 ppb, however they occur sporadically with no latteral continuity.

In summary, the results are somewhat dismal as values are generaly low with no coincident elemental anomalies.

Arsenic appears to have the greatest significance as it has the widest range of values and shows the best continuity.

The poor geochemical results are probably due to the thick overburden.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The property is underlain by steeply dipping, northwest trending Nicola Group volcanics and sediments. Olivine basalts overlie the Nicola Group in the Northwestern portion of the grid. No significant sulphide or gold mineralization was found on the grid, however, a favourable host rock (clay altered quartz-carbonate breccia) does occur along narrow (0.5 to 3.0 meters) northwest trending shear zones.

The geochemical results are poor, as values are generally low with no coincident elemental anomalies. Arsenic appears to have the greatest significance as it has the widest range of values and shows at least some latteral continuity. The poor geochemial results are probably due to the thick overburden.

It is recommended that a detailed magnetometer, V.L.F. and panned soil sample survey be conducted in the central portion of the grid at a 50 meter line spacing and 25 meter station interval.

5.0 BIBLIOGRAPHY

Campbell, R.B. and Tipper, H.W. 1970.	Geology and Mineral Deposits of the Quesnel Trough, British Columbia CIM Trans. Vol LXXIII pp. 174-179
Dickson, Robert A. 1983.	Assessment Report #11477 - A geochemical report on the Cayuse claim.
Medford, Gary A. 1985.	Assessment Report #13213 - Geochemical Report on the Jan 1 to 4 claims.

APPENDIX I

GEOCHEMICAL LABORATORY

ANALYSIS SHEETS

NORANDA VANCOUVER LABORATORY

****

PROPERTY/LOCATION:CRISS CK. RECCE CODE :8706-072

Project No. : 127 Sheet:1 of 8 Date rec'd:JUN.18
Material :SOIL & SILT Geol.: G.S. Date compl:JUL.08
Remarks :

Values in PPM, except where noted.

	SAMPLE No.	As	Cd	Sb	PPB Au
2	21500E-9400N SOIL	14	0.2	2	10
3	9425	6	0.2	1	10
4	9450	8	0.2	1	10
5	9475	12	0.2	1	10
6	9500	4	0.2	2	10
7	9525	6	0.2	1	10
8	9550	2	0.2	2	10
9	9575	8	0.2	1	10
10	9600	8	0.2	1	10
11	9625	6	0.2	1	10
12	9650	6	0.2	1	10
13	9675	4	0.2	1	20
14	9750	8	0.2	1	10
15	9775	4	0.2	1	10
16	9800	6	0.2	1	10
17	9825	8	0.2	1	10
18	9850	8	0.2	1	10
19	9875	10	0.2	1	10
20	9900	6	0.2	1	10
21	9925	8	0.2	1	10
22	9950	2	0.2	1	10
23	9975	4	0.2	1	10
24	10000	2	0.2	1	10
25	10025	8	0.2	4	10
26	10050	6	0.2	2	10
27	10075	10	0.2	1	10
28	10100	10	0.2	2	10
29	10125	16	0.2	2	10
30	10150	12	0.2	2	10
31	10175	6	0.4	2	10
32	10200	6	0.2	6	10
33	10225	28	0.2	6	10
34	10250	12	0.2	4	10
35	10275	4	0.2	4	10
36	10300	10	0.2	1	10
37	10325	6	0.2	2	10
38	10350	8	0.2	2	10
39	10375	6	0.2	1	10
40	10400	10	0.2	4	10
41	10425	6	0.2	1	10
42	10450	1	0.2	1	10
43	10475	6	0.2	1	10
44	10500	1	0.2	1	10
45	10525	4	0.2	1	10
46	10550	20	0.2	1	10
47	10575	14	0.2	1	10
48	10600	16	0.2	1	10
49	21500E-10625N SOIL	20	0.2	1	10

	SAMPLE No.	As	Cd	Sb	PPB Au
	21500E-10650N SOIL	12	0.2	1	10
	10675	14	0.2	2	10
	10700	4	0.2	2	70
	10725	8	0.2	4	10
	10750	18	0.2	4	10
	10775	20	0.2	1	10
	21500E-10800N	6	0.2	1	10
	21700E-9400N	14	0.2	1	10
	9425	16	0.2	1	10
	9450	16	0.2	1	10
	9475	8	0.2	1	10
	9500	6	0.2	1	10
	9525	2	0.2	1	10
	9550	38	0.2	2	10
	9575	42	0.2	2	10
	9600	16	0.2	1	10
	9625	6	0.2	1	10
	9650	10	0.2	1	10
	9675	12	0.2	6	10
	9700	16	0.2	6	10
	9725	10	0.2	4	10
	9750	8	0.2	1	10
	9775	4	0.2	1	10
	9800	4	0.2	1	10
	9825	4	0.2	1	10
	9850	2	0.2	1	10
	9875	4	0.2	1	10
	9900	4	0.2	1	10
	9925	6	0.2	1	10
	9950	10	0.2	2	10
	9975	6	0.2	1	10
	10000	8	0.2	1	10
	10025	6	0.2	1	10
	10050	4	0.2	1	10
	10075	6	0.2	4	10
	10100	12	0.2	4	10
	10125	6	0.2	1	10
	10150	2	0.2	1	10
	10175	8	0.2	1	10
	10200	10	0.2	1	10
	10225	10	0.2	4	10
	10250	10	0.2	1	10
	10275	30	0.2	1	20
	10300	16	0.2	1	10
	10325	16	0.2	1	10
	10350	18	0.2	1	10
	10375	10	0.2	1	10
	10400	12	0.2	1	10
	10425	6	0.2	1	10
	21700E-10450N	8	0.2	1	10
	CHECK NL-5	60	0.2	-	-
01	21700E-10475N	6	0.2	1	10
	10500	12	0.2	1	10
	10525	12	0.2	1	10
	10550	20	0.2	1	10
	10575	10	0.2	1	10
	21700E-10600N SOIL	12	0.2	1	10

	SAMPLE No.	As	Cd	Sb	PPB Au
	21700E-10625N SOIL	24	0.2	1	10
	10650	10	0.2	1	10
	10675	8	0.2	1	10
	10700	6	0.2	1	10
	10725	8	0.2	1	10
	10750	14	0.2	1	10
	10775	6	0.2	1	10
	21700E-10800N	10	0.2	1	10
	21900E-9500N	20	0.2	1	10
	9525	28	0.2	2	10
	9550	16	0.2	1	10
	9575	90	0.2	1	10
	9600	26	0.2	1	10
	9625	24	0.2	2	10
	9650	12	0.2	2	10
	9675	18	0.2	1	10
	9700	10	0.2	1	10
	9725	44	0.2	2	10
	9750	100	0.2	4	10
	9775	12	0.2	2	10
	9800	6	0.2	1	10
	9825	10	0.2	2	10
	9842	14	0.2	2	10
	9850	12	0.2	1	10
	9875	16	0.2	4	10
	9900	10	0.2	4	10
	9925	14	0.2	2	10
	9950	20	0.2	6	10
	9975	10	0.2	2	10
	10000	8	0.2	2	10
	10025	10	0.2	4	10
	10050	16	0.2	4	10
	10075	10	0.2	1	10
	10100	16	0.2	1	10
	10125	6	0.2	1	10
	10130	10	0.2	1	10
	10150	18	0.2	6	10
	10175	10	0.2	1	10
	10200	14	0.2	4	10
	10225	10	0.2	4	10
	10250	10	0.2	4	10
	10275	14	0.2	6	10
	10300	8	0.2	2	10
	10325	8	0.2	2	10
	10350	8	0.2	2	10
	10375	20	0.2	2	10
	10400	10	0.2	2	10
	10425	8	0.2	2	10
	10450	14	0.2	2	10
	10475	12	0.2	2	10
	10500	10	0.2	2	50
	10525	10	0.2	1	10
	10550	8	0.2	2	10
	10575	2	0.2	1	10
	21900E-10600N	2	0.2	1	10
	22100E-9800N	4	0.2	1	10
	22100E-9825N SOIL	8	0.2	1	10

T.	SAMPLE No.	As	Cd	Sb	PPB Au	8706-072 Pg. 4 of 8
6	22100E-9850N SOIL	4	0.2	1	10	
7	9860	10	0.2	1	10	
8	9875	10	0.2	1	10	
9	9900	12	0.2	1	10	
0	9925	8	0.2	1	10	
1	9950	8	0.2	1	10	
2	9975	2	0.2	1	10	
3	10000	2	0.2	1	10	
4	10025	8	0.2	1	10	
5	10050	24	0.2	1	10	
6	10075	16	0.2	1	10	
7	10100	4	0.2	1	50	
8	10125	4	0.2	1	10	
9	10150	4	0.2	1	10	
0	10175	8	0.2	1	10	
1	10200	2	0.2	4	10	
2	10225	4	0.2	1	10	
3	10250	16	0.2	2	10	
4	10275	6	0.2	1	10	
5	22100E-10300N	10	0.2	2	10	
6	22200E-9925N	12	0.2	1	10	
7	9950	18	0.2	1	10	
8	9975	10	0.2	1	10	
9	10000	4	0.2	1	10	
0	10025	10	0.2	1	10	
1	10050	4	0.2	1	10	
2	10075	4	0.2	1	10	
3	10100	4	0.2	2	10	
4	10125	2	0.2	1	10	
5	10150	2	0.2	1	10	
6	10175	4	0.2	1	10	
7	10200	2	0.2	1	10	
8	10225	2	0.2	1	10	
9	10250	2	0.2	1	10	
0	10375	16	0.2	1	10	
1	10400	16	0.2	1	10	
2	10425	20	0.2	1	10	
3	10450	8	0.2	2	10	
4	10475	4	0.2	4	10	
5	10500	12	0.2	2	10	
6	10525	4	0.2	2	10	
7	10550	12	0.2	1	10	
8	10575	12	0.2	1	10	
9	10600	8	0.2	1	10	
0	10625	4	0.2	1	10	
1	10650	2	0.2	2	10	
2	10675	4	0.2	1	10	
3	10700	4	0.2	1	10	
4	22200E-10730N	10	0.2	4	10	
5	22300E-10050N	20	0.2	4	10	
6	10075	12	0.2	4	10	
7	10100	8	0.2	4	10	
8	10125	8	0.2	6	30	
9	10135	8	0.2	4	10	
0	10150	4	0.2	2	10	
1	10175	2	0.2	1	10	
2	22300E-10350N SOIL	12	0.2	2	10	

	SAMPLE No.	As	Cd	Sb	PPB Au
	22300E-10375N SOIL	16	0.2	4	10
	10400	4	0.2	2	10
	10425	2	0.2	2	10
	10450	8	0.2	1	10
	10475	4	0.2	2	10
	10500	4	0.2	2	20
	10525	2	0.2	1	10
	10550	2	0.2	4	10
	10575	2	0.2	1	30
	10588	8	0.2	1	10
	10600	4	0.2	1	10
	10625	2	0.2	2	10
	10650	4	0.2	1	10
	10675	2	0.2	4	10
	10700	2	0.2	4	10
	22300E-10705N	4	0.2	2	10
	22400E-10325N	12	0.2	2	10
	10340	16	0.2	4	10
	10350	240	0.2	2	10
	10375	500	0.6	16	10
	10400	8	0.2	1	10
	10425	4	0.2	2	10
	10450	2	0.2	4	10
	10475	2	0.2	2	10
	10500	2	0.2	2	10
	10520	2	0.2	4	10
	22400E-10525N	2	0.2	4	10
	CHECK NL-5	54	0.2	–	–
	22400E-10550N	2	0.2	4	10
	10565	2	0.2	2	10
	10575	2	0.2	4	10
	10600	2	0.2	4	10
	10615	2	0.2	2	10
	10625	2	0.2	2	10
	10650	2	0.2	1	10
	10675	2	0.2	2	10
	22400E-10700N	2	0.2	4	10
	22500E-10300N	4	0.2	2	10
	10325	32	0.2	1	10
	10350	16	0.2	1	10
	10375	88	0.2	2	10
	10425	2	0.2	1	10
	10450	2	0.2	1	10
	10475	2	0.2	1	10
	10500	2	0.2	1	10
	10525	2	0.2	2	10
	10550	2	0.2	1	10
	10575	2	0.2	1	10
	10675	2	0.2	1	10
	22500E-10700N	2	0.2	1	10
	22600E-10450N	2	0.2	2	10
	10475	2	0.2	4	10
	10500	2	0.2	2	10
	10525	2	0.2	1	10
	10625	2	0.2	1	10
	10650	2	0.2	1	10
	22600E-10700N SOIL	2	0.2	2	10

T.	SAMPLE No.	As	Cd	Sb	PPB Au
0	22800E-10350N SOIL	20	0.2	1	10
	10400	8	0.2	1	10
	10425	16	0.2	1	10
3	10450	12	0.2	1	10
4	10475	8	0.2	2	10
5	10500	64	0.2	1	10
6	10550	12	0.2	2	10
7	10575	4	0.2	4	10
8	10600	4	0.2	1	10
9	10625	24	0.2	4	10
0	10650	2	0.2	4	10
1	10675	2	0.2	2	10
2	22800E-10700N	2	0.2	2	10
3	23000E-10125N	12	0.2	2	10
4	10150	8	0.2	1	10
5	10175	4	0.2	4	10
6	10200	16	0.2	1	10
7	10225	4	0.2	1	10
8	10250	8	0.2	2	10
9	10275	20	0.2	1	10
2	10300	20	0.2	1	10
3	10325	16	0.2	1	10
4	10350	12	0.2	1	10
5	10375	8	0.2	1	10
6	23000E-10400N	8	0.2	1	10
7	23200E-10000N	1	0.2	1	10
8	10025	1	0.2	1	10
9	10050	8	0.2	1	10
0	10075	4	0.2	1	10
1	10100	12	0.2	2	10
12	10125	60	0.2	1	10
13	10150	60	0.2	1	10
14	10175	20	0.2	1	10
15	10200	1	0.2	2	10
16	10225	12	0.2	1	10
17	10250	12	0.2	4	10
18	10275	16	0.2	4	10
19	10300	8	0.2	2	10
20	10325	16	0.2	1	10
21	10350	20	0.2	4	10
22	10375	8	0.2	2	10
23	10400	4	0.2	1	10
24	10425	16	0.2	2	10
25	10450	4	0.2	2	10
26	10475	12	0.2	2	10
27	10500	20	0.2	1	10
28	10525	80	1.2	2	10
29	10550	12	0.2	2	10
30	10575	8	0.2	1	10
31	10600	16	0.2	2	10
32	10625	8	0.2	1	10
33	10650	8	0.2	1	10
34	10675	8	0.2	1	10
35	23200E-10700N	8	0.2	4	10
36	23000E-10425N	4	0.2	2	10
37	10450	1	0.2	2	10
38	23000E-10475N SOIL	1	0.2	2	10

T.	SAMPLE No.		As	Cd	Sb	PPB Au	8706-072 Pg. 7 of 8
9	23000E-10500N	SOIL	4	0.2	4	10	
)	10525		1	0.2	2	10	
	10550		8	0.2	4	10	
2	10575		8	0.2	6	10	
3	10600		12	0.2	2	10	
4	10625		4	0.2	4	10	
5	10650		1	0.2	2	10	
6	10675		1	0.2	1	10	
7	23000E-10700N		1	0.2	2	10	
8	23400E-10000N		8	0.2	4	10	
9	10025		4	0.2	4	10	
)	10050		1	0.2	2	10	
1	10075		12	0.2	4	10	
2	10100		4	0.2	1	10	
3	10125		4	0.2	4	10	
4	10150		1	0.2	2	10	
5	10175		1	0.2	2	10	
6	10200		8	0.2	2	10	
7	10225		8	0.2	4	10	
8	10250		4	0.2	4	10	
9	10275		1	0.2	2	10	
0	10300		8	0.2	2	10	
1	10325		8	0.2	1	10	
2	10350		8	0.2	1	10	
3	10375		32	0.2	1	10	
4	10400		16	0.2	4	10	
5	10425		12	0.2	1	10	
6	10450		12	0.2	2	10	
7	10475		8	0.2	4	10	
8	10500		1	0.2	1	10	
9	10525		1	0.2	1	10	
70	10550		1	0.2	1	10	
71	10575		4	0.2	1	10	
72	10600		4	0.2	1	10	
73	10625		1	0.2	1	10	
74	10650		1	0.2	1	10	
75	10675	SOIL	1	0.2	1	10	
76	23400E-10700N	SILT	1	0.2	1	10	
77	22795E-10605N		1	0.2	1	10	
78	22800E-10364N		4	0.2	1	10	
79	22800E-10490N		8	0.2	1	20	
80	22900E-10700N		1	0.2	1	10	
81	75876		20	0.2	1	10	
82	75877		16	0.2	1	10	
83	22800E-10525N		28	0.2	1	10	
84	22985E-10533N		20	0.2	1	10	
85	22500E-10280N		24	0.2	1	10	
86	22480E-10310N		28	0.2	6	10	
87	22500E-10600N		16	0.2	4	10	
88	22500E-10625N		12	0.2	1	10	
89	22500E-10650N		1	0.2	1	10	
90	22540E-10700N		4	0.2	1	10	
91	22600E-10425N		20	0.2	1	10	
92	10550		4	0.2	1	10	
93	10575		8	0.2	1	10	
94	10600		12	0.2	1	10	
95	22600E-10675N	SILT	12	0.2	1	10	

APPENDIX II

STATEMENT OF

COST

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COSTS

PROJECT: Criss Creek DATE: December 22, 1987

TYPE OF REPORT: Geological and Geochemical

a) Wages:

No. of Days	41 Mandays	
Rate per Day	$ 115.00	
Dates From:	June 2 to June 17	
Total Wages	41 x $ 115.00	$ 4,715.00

b) Food & Accomodations:

No. of Days	41 Mandays	
Rate per Day	$ 30.00	
Dates From:	June 2 to June 17	
Total Costs	41 x $ 30.00	$ 1,230.00

c) Transportation:

No. of Days	16 days	
Rate per Day	$ 65.00	
Dates From:	June 2 to June 17	
Total Costs	16 x $ 65.00	$ 1,040.00

d) Instrument Rental:

Type of Instrument

No. of Days

Rate per Day $

Dates From:

Total Costs x $

Type of Instrument

No. of Days

Rate per Day $

Dates From:

Total Costs x $

e)	Analysis: (See attached schedule)	$ 3,716.80
f)	Cost of preparation of Report	
	Author:	$ 300.00
	Drafting:	$ 200.00
	Typing:	$ 100.00
g)	Other:	
	Contractor	
	Total Cost	$ 11,301.80
h)	Unit costs for Linecutting	
	No. of Days	
	No. of Units 15 line kilometers	
	Unit costs $91.32 / Km.	
	Total Cost 15 x $91.32	$ 1,369.90
i)	Unit costs for Geochemistry	
	No. of Days	
	No. of Units 368 Samples	
	Unit costs $16.24 / sample	
	Total Cost 368 x $16.24	$ 5,976.32
j)	Unit costs for Geology	
	No. of Days 22 Mandays	
	Unit cost $179.80	
	Total Cost 22x $179.80	$ 3,955.58
	GRAND TOTAL:	$ 11,301.80

NORANDA EXPLORATION COMPANY, LIMITED

(WESTERN DIVISION)

DETAILS OF ANALYSES COSTS

PROJECT:

ELEMENT	NO. OF DETERMINATIONS	COST PER DETERMINATION	TOTAL COSTS
As	368	1.50	$ 552.00
Au	368	3.50	$1,288.00
Cd	368	1.60	$ 588.80
Sb	368	3.00	$1,104.00
		Sub Total	$3,532.80
	Sample Preparation: 368 x 0.50:		$ 184.00
		TOTAL:	$3,716.80

APPENDIX III

STATEMENT OF

QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

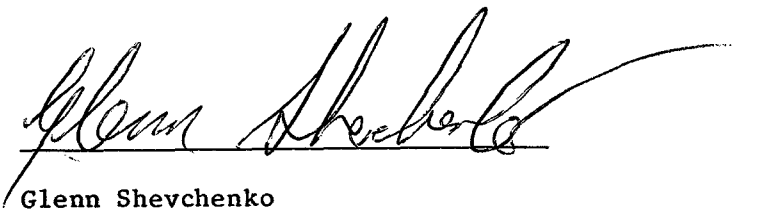
I, Glenn Shevchenko, with a business address at P.O. Box 2380, 1050 Davie Street, Vancouver, British Columbia, do hereby certify that:

1) I am presently employed with Noranda Exploration Company, Limited, as a Project Geologist, and have been since May 1984.

2) I have worked in the mineral exploration industry since 1977.

3) I graduated (1982) from Concordia University with a B.Sc. in geology.

4) I am a member of the Geological Association of Canada.



Glenn Shevchenko

CRISS 2

10600N
10400N
10200N
10000N
9800N
9600N
9400N

23000 E
22800 E
22600 E
22500 E
22400 E
22300 E
22200 E
22100 E
21900 E
21700 E
21500 E

L.C.P.

BASELINE 128°

CRISS I

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,819

DWG. No. 3

100m 50m 0m 100m 200m

CRISS CREEK

GEOCHEMICAL VALUES

As (ppm) / Au (ppb)

PROJECT: CRISS CREEK PROJECT # : 172

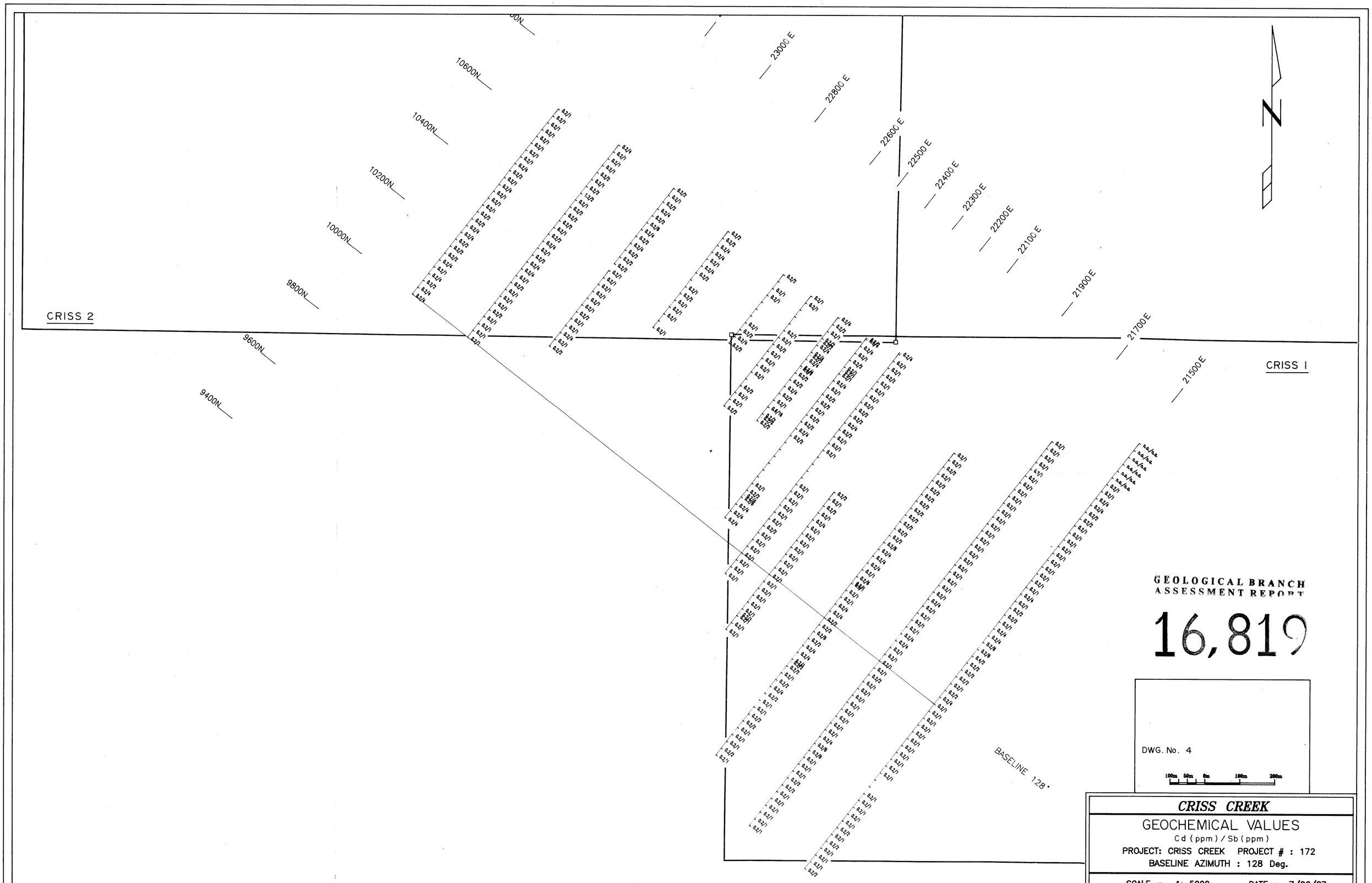
BASELINE AZIMUTH : 128 Deg.

SCALE = 1: 5000 DATE : 7/26/87

SURVEY BY : G.S. NTS : 092I15W

FILE: C172CRI

NORANDA EXPLORATION



GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,819

DWG. No. 4

100m 50m 0m 100m 200m

CRISS CREEK

GEOCHEMICAL VALUES

Cd (ppm) / Sb (ppm)

PROJECT: CRISS CREEK PROJECT # : 172

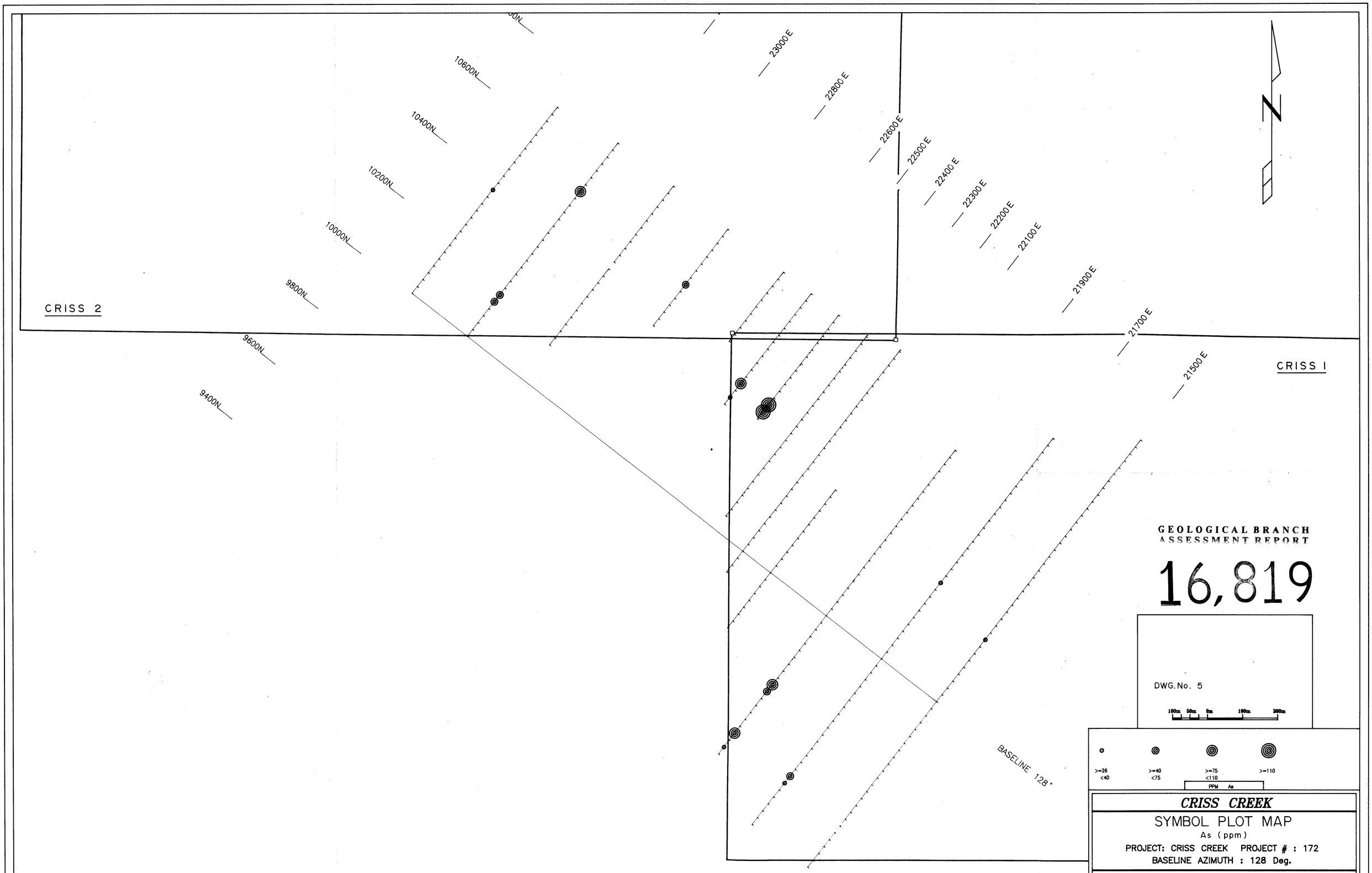
BASELINE AZIMUTH : 128 Deg.

SCALE = 1: 5000 DATE : 7/26/87

SURVEY BY : G.S. NTS : 092I15W

FILE: C172CRI

NORANDA EXPLORATION



GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,819

DWG.No. 5

100m 50m 0m 100m 200m

>=26 <40 | >=40 <75 | >=75 <110 | >=110

PPM As

CRISS CREEK

SYMBOL PLOT MAP

As (ppm)

PROJECT: CRISS CREEK PROJECT # : 172

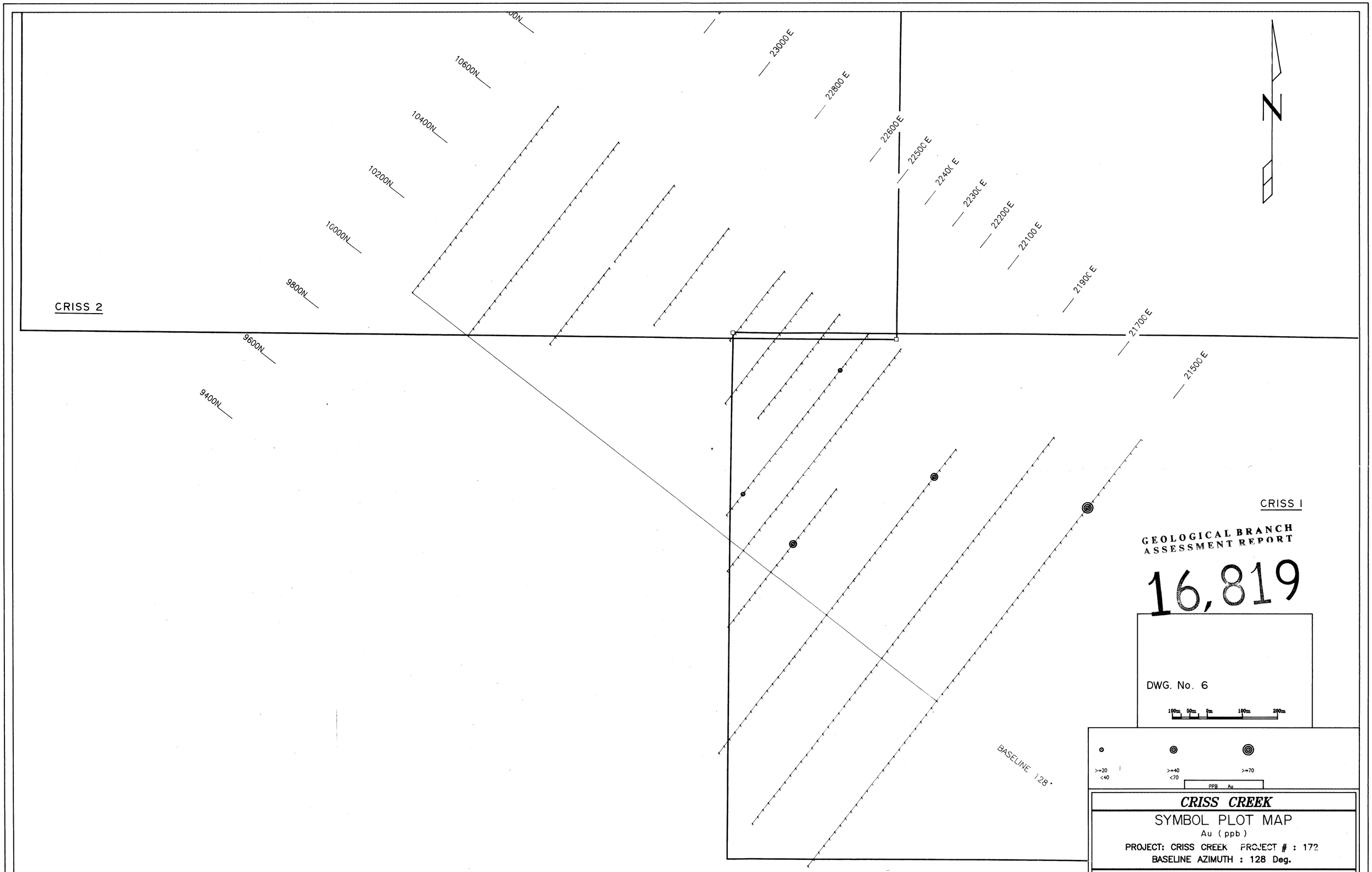
BASELINE AZIMUTH : 128 Deg.

SCALE = 1: 5000 DATE : 7/26/87

SURVEY BY : G.S. NTS : 092I15W

FILE: C172CRI

NORANDA EXPLORATION



GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,819

DWG. No. 6

CRISS CREEK

SYMBOL PLOT MAP

Au (ppb)

PROJECT: CRISS CREEK PROJECT # : 172

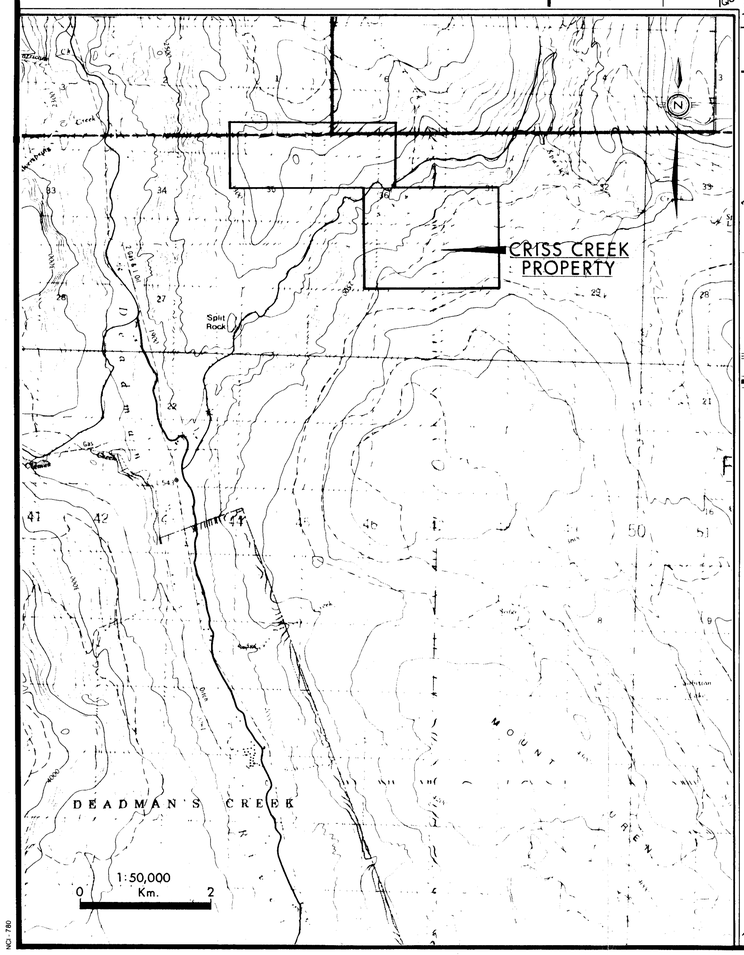
BASELINE AZIMUTH : 128 Deg.

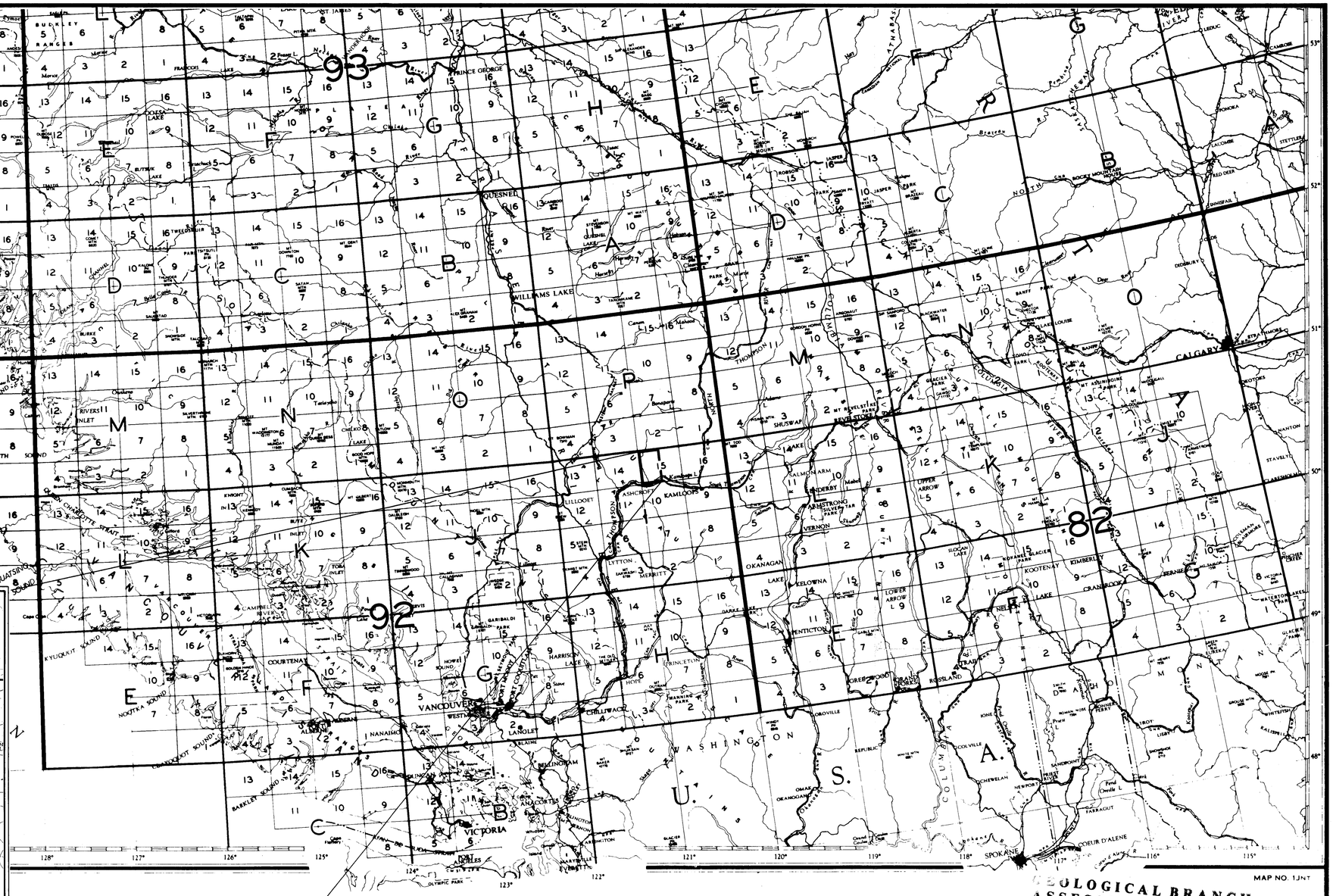
SCALE = 1: 5000 DATE : 7/26/87

SURVEY BY : G.S. NTS : 092I15W

FILE: C172CRI

NORANDA EXPLORATION





MAP NO. 1JNT

GEOLOGICAL BRANCH
ASSESSMENT REPORT

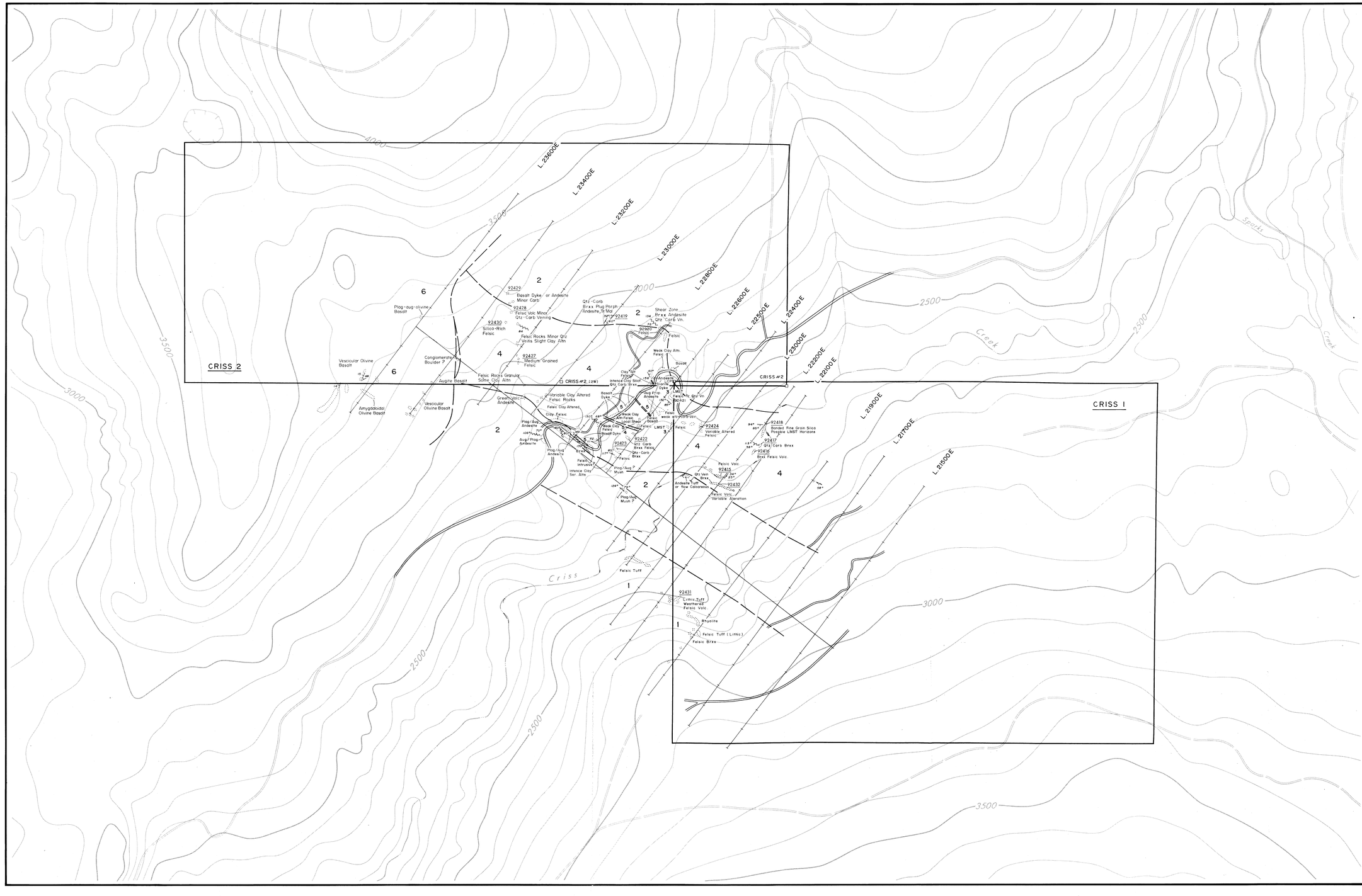
16,819

SCALE
1:2,000,000

Kilometres 20 0 40 80 120 160 200 Kilometres

REVISED	Southern Cordillera District
	PROJECT LOCATION
	CRISS CREEK
PROJ. No. 1-72	SURVEY BY: G.Shevchenko DATE: May/87
N.T.S. 92I/15W	DRAWN BY: P.J.A. SCALE: 1:2,000,000
DWG. No. 1	NORANDA EXPLORATION
	OFFICE: VANCOUVER

NO. 780



LEGEND

KAMLOOPS GROUP - MIOCENE

6 OLIVINE BASALT - AMYGDALOIDAL OR VESCICULAR - AUGITE, PLAGIOCLASE PHENOCRYSTS

5 BASALTIC DIKES - OLIVINE, AUGITE PHENOCRYSTS

COOPER CREEK INTRUSIONS - CRETACEOUS OF TERTIARY

4 GRANITE - DIKE IN NICOLA ANDESITIS - MAINLY QUARTZ - FELDSPAR, < 5% MAFICS - VARIABLE ARGILLIC ALTERATION

NICOLA GROUP - TRIASSIC

3 LIMESTONE - OCCURS WITH BANDED SILICEOUS UNITS AS RAFTS IN THE GRANITIC INTRUSIVE

2 ANDESITE, ANDESITE TUFF - GRAY GREEN, SLIGHTLY CHLORITIZED

1 FELSIC AND LITHIC TUFF - COARSE LITHIC FRAGMENTAL IN RHYODACITIC TUFF MATRIX WITH RHYOLITE FLOWS AND BRECCIAS

NOTE: AGE RELATION BETWEEN NICOLA ANDESITE AND FELSIC TUFFS, FLOWS, AND BRECCIAS IS UNCERTAIN

SYMBOLS

- AREA OF OUTCROP
- GEOLOGICAL BOUNDARY
- SHEAR ZONE
- $\times \overset{56}{\nearrow} S_0, S_1$ FOLIATION PLANE

ABREVIATIONS

Alm	ALTERATION
Aug	AUGITE
Brxx	BRECCIA
Carb	CARBONATE
Mal	MALACHITE
Plag	PLAGIOCLASE
Ser	SERICITE
Tr	TRACE
Vn	VEIN

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,819

SCALE
1:5000

Metres 100 0 100 200 300 400 500 Metres

REVISED	CRISS CREEK
	PROPERTY GEOLOGY
PROJ. No. 172	SURVEY BY: DATE: May/87
N.T.S. 92I/15	DRAWN BY: Hoffer, J.S. SCALE: 1:5000
DWG. No. 2	NORANDA EXPLORATION
	OFFICE: Vancouver