

LOG NO: JAN 03 1995 U
ACTION:
FILE NO:

**GEOLOGICAL, GEOCHEMICAL
AND GEOPHYSICAL REPORT
ON THE
SOUP PROPERTY**

N.T.S.: 94D/8

DECEMBER, 1994

SUB-RECORDER
RECEIVED
DEC 22 1994
M.R. # \$
VANCOUVER, B.C.

FILMED

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,683

**Author: D.G. Gill, P.Geo.
Owner/Operator: Hemlo Gold Mines Inc.**

TABLE OF CONTENTS

	<u>PAGE</u>
1.0 INTRODUCTION.....	1
1.1 Location and Access.....	1
1.2 Topography and Physiography.....	1
1.3 History.....	1
1.4 Claims.....	4
1.5 Economic Potential.....	6
1.6 Survey Control.....	6
1.7 Sampling.....	6
2.0 GEOLOGY.....	7
2.1 Regional.....	7
2.2 Property.....	7
3.0 GEOPHYSICS.....	10
4.0 CONCLUSIONS.....	11

REFERENCES

APPENDICES

- Appendix I : Laboratory Analytical Techniques
- Appendix II : Rock Geochemical Results and Descriptions
- Appendix III: Statement of Costs
- Appendix IV : Statement of Qualifications

DRAWINGS

	<u>SCALE</u>
1. Location Map.....	1:2,000,000
2. Claim Location.....	1:50,000
3. Regional Geology.....	1:50,000
4. Property Geology.....	1:5,000
5. Structure.....	1:5,000
6. Rock Sample Locations and Assays.....	1:5,000
7. Rock Sample Locations.....	1:5,000
8. Ground Magnetometer Readings.....	1:5,000
9. Contoured & Interpreted Ground Magnetometer Results.....	1:5,000

1.0 INTRODUCTION

Between the dates of August 16 and August 27, 1994, 6 mandays were spent on the Soup Property by Noranda personnel acting as agents for Hemlo Gold Mines Inc. The programme consisted of mapping, and rock geochemistry upslope of the known oxidized magnetite-pyrite-silica occurrences where previous surveys had outlined anomalous copper and gold values from soils. Between August 27 and September 2, 1994 6.45 km of magnetometer survey was also completed.

A total of 25 rocks were collected during this programme.

1.1 Location and Access

The Soup property is located approximately 190 km north-northeast of Smithers, B.C. on N.T.S. Mapsheet 94D/8 in the Omineca Mining Division.

Camp mobilization was achieved via helicopter based at the east end of Johanson Lake located 13 kilometers north-northeast from the Soup claim block.

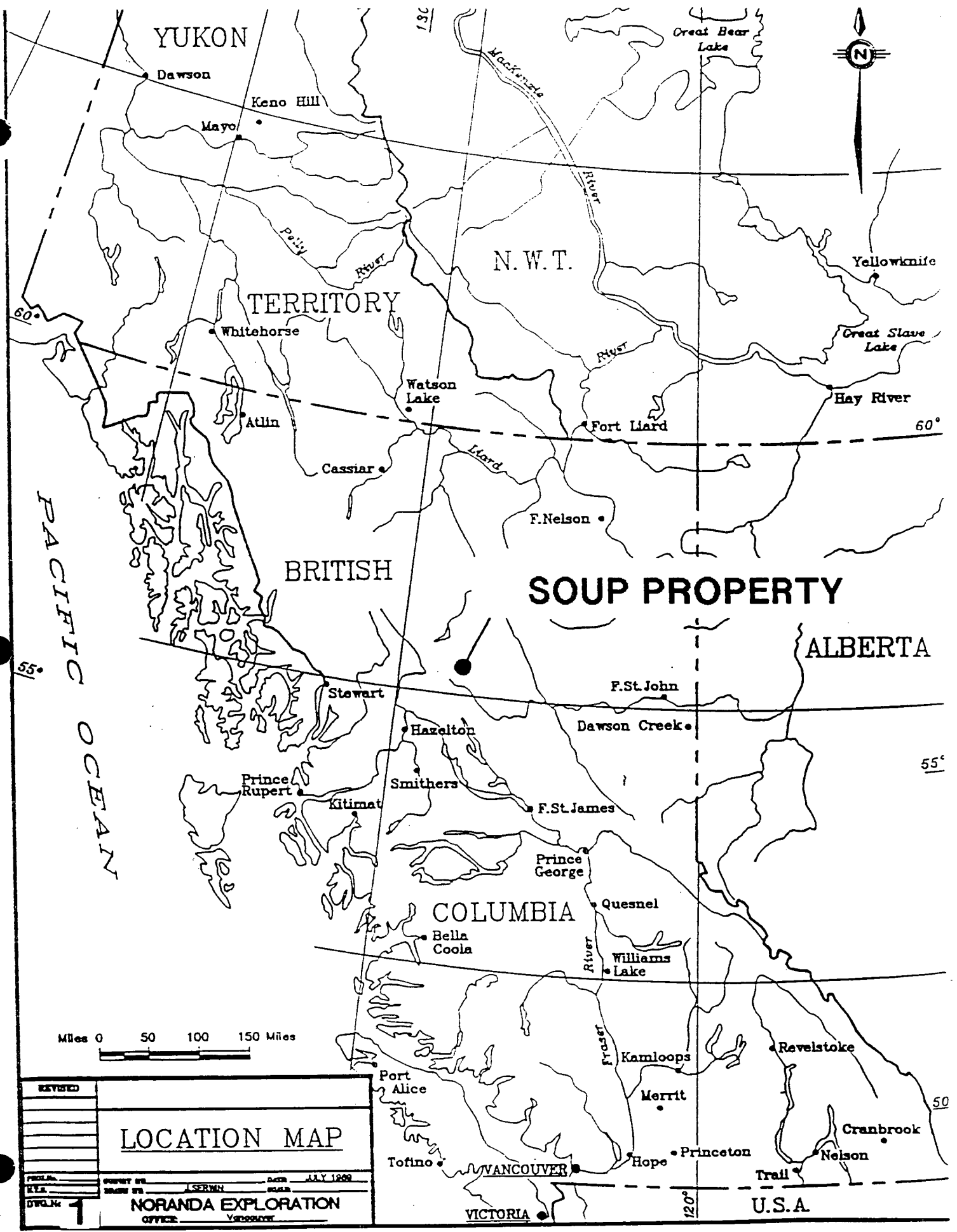
1.2 Topography and Physiography

The Soup property is situated within the Osilinka Ranges and lies on steep south and southwest facing slopes which are drained by small, intermittent creeks flowing into Kliyul Creek. Much of the property is devoid of vegetation due to the steepness of the terrain and elevations which range from 4330 feet in the valley bottom to 7500 feet along the northwest trending ridge located in the eastern section of the claims.

1.3 History

Below is a brief outline of documented work performed on the Soup property and surrounding areas in chronological order:

- 1930's: Consolidated Mining and Smelting Company explored for lode gold occurrences to the east and southeast of the Soup at Porphyry Creek, Croydon Creek and Granite Basin.
- 1946-48: Springer Sturgeon Gold Mines explored auriferous quartz veins known as the Solo, Bruce and Ginger B occurrences.
- 1963: This year saw the beginning of exploration on the Davie Creek moly prospect which continued through to 1983 by such companies as Riocanex, Teck, Chevron and Getty Canadian Metals.



LOCATION MAP

NORANDA EXPLORATION OFFICE

- 1964: Southwest Potash Corp. (Amax) conducted mapping and chip sampling of the southern-most Soup skarn horizons.
- 1965: Mapping by K.C. McTaggart revealed the skarn horizon varied in width from 10 to 100 feet and extended discontinuously for over 8,000 feet.
- 1971: Three x-ray holes (70 feet) were drilled into the skarn horizon at one location on the Soup 10 claim by Falconbridge Nickel Mines Ltd.
- 1975: An ore microscopy study was performed on a number of mineralized skarn samples by A.J. Sinclair.
- 1976: A magnetic profiling and modeling survey was conducted by A.J. Sinclair which revealed a stratiform magnetic occurrence with dips of 20 to 30° E.
- 1977: A rock chip sampling programme was conducted by BP Minerals along eleven cross-lines through the skarn horizons.
- 1980-81: Vital Resources Ltd. optioned the claims and subsequently performed a limited soil survey across the skarn horizon stratigraphy.
- 1982: Noranda Exploration Company, Limited optioned the claims from Vital and conducted soil and rock chip sampling as well as magnetometer surveying.
- 1984: Detailed mapping as well as talus-fine and rock chip geochemistry was done by BP Resources Canada Ltd. The geochem survey revealed anomalous Au zones exist stratigraphically above the skarn horizons.
- 1986-87: A detailed magnetometer survey and systematic rock-chip sampling was completed by Lemming Resources Ltd. One new skarn zone was discovered as mineralized talus.
- 1989: A seven hole (1112 feet) diamond drill hole programme was completed by Athlone Resources Ltd. Drilling was focused on skarn horizons as well as northeast-southwest crosscutting structural features which contained discordant magnetite-pyrite-chalcopyrite mineralization.

- 1990: Teck Explorations Ltd. completed a detailed large-scale mapping and prospecting programme as well as systematically sampling the skarn occurrences in the southeast portion of the property. Teck recommended further mapping to assess the porphyry Cu-Au potential on the property.
- 1993: Noranda conducted a 288 test pit and 6 hole reverse circulation drilling programme on the Kliyul property as well as cursory mapping and sampling of the Joh, Croydon, Darb and Soup properties.

1.4 Claims

The Soup property is comprised of 10, 2-post mineral claims (10 units) 1 fractional claim (1 unit) and 3, 4-post mineral claims (36 units) for a total of 47 units. A list of the claims with corresponding tenure number, anniversary date and owner follows.

CLAIM NAME	TENURE NO.	UNITS	ANNIVERSARY DATE	OWNER
Soup 1	244014	1	August 7, 1998	Hemlo Gold Mines Inc.
Soup 2	244015	1	August 7, 1998	" " "
Soup 3	244016	1	August 7, 1998	" " "
Soup 4	244017	1	August 7, 1998	" " "
Soup 5	244018	1	August 7, 1998	" " "
Soup 6	244019	1	August 7, 1998	" " "
Soup 7	244020	1	August 7, 1998	" " "
Soup 8	244021	1	August 7, 1998	" " "
Soup 9	244022	1	August 7, 1998	" " "
Soup 10	244023	1	August 7, 1998	" " "
*Soup 11 Fr	238499	1	August 15, 1997	" " "
Soup 12	238688	12	October 5, 1997	" " "
Soup 13	238689	12	October 5, 1997	" " "
*Soup 14	238824	12	August 13, 1997 13 p.H.H.	" " "

Only those claims with an asterisk beside them are being filed for assessment.

1.5 Economic Potential

The narrow, discontinuous, erratically mineralized skarn horizons that occur on the Soup property and dip into the hill do not provide a very practical target for an economic deposit. However, the potential for bulk mineable gold associated with stockworks/breccias zones along major structural breaks may exist on the property. The high grade section (0.47% Cu, 0.229 opt Au/15 feet and 0.17% Cu, 1.427 opt Au/10.5 feet) intersected by Athlone Resources in DDH-89-1 and 2 respectively while drilling one of these discordant zones (Saddle Gulley zone) lends credence to this possibility.

1.6 Survey Control

The surveying of the flagged and picketed grid lines was conducted earlier this year with the aid of a prism and metric hipchain and were tied into topographic features. All lines were sloped corrected. Lines were established at 100 metre intervals off the baseline with stations being established every 25 meters.

1.7 Sampling

Rock samples were collected as grabs whenever representative, altered and/or mineralized formations were encountered and sent to Noranda Exploration Laboratory at Unit #1, 7550-76th Street, Delta, B.C.

Please refer to Appendix I for the laboratory analytical techniques and Appendix II for sample assay values and descriptions where applicable.

A total of 25 rocks and their accompanying analytical charges are being applied for assessment.

2.0 GEOLOGY

2.1 Regional

The Soup property is situated within the Intermontane Belt which is comprised of Upper Triassic to Lower Jurassic island arc volcanics, volcanoclastics and minor sediments of the Takla Group which hosts such Cu-Au porphyry deposits as Mt. Milligan and Kemess. The dominantly volcanic package in the Soup area has been intruded by Jura-Cretaceous aged diorites, monzonites and syenites associated with the Hogem Batholith.

Prominent structural features in the area include NW, E-W, N-S and NNE-SSW trending fault systems.

2.2 Property Geology

Mapping of the Soup property was conducted at 1:5,000 scale using flagged and picketed, metrically chained, slope corrected grid lines, topographic bases and airphotos for control. The resulting maps (Drawings 4, 5, 6 and 7) show geology, structure, rock samples with gold and copper values greater than 250 ppb and 5000 ppm respectively and all samples collected.

Mapping has confirmed that the survey area is underlain by late Triassic aged volcanic sequence of Takla Group rocks intruded by Triassic-Jurassic aged gabbro/pyroxenites, monzonites and diorites. These are separated into 6 distinct mappable units which basically trend northwest and dip moderately to the northeast and are described below.

Unit 1 is described as an andesitic tuff which consists of massive, medium green coloured, fine to medium grained crystal, lithic and ash tuffs. Crystal composition is mainly feldspars which are 1-3 mm in size, white, blocky and often broken. Fragments observed are monolithic, feldspar to feldspar-augite phyric volcanoclastics similar to the host matrix and range in size from 2 mm to 1 cm.

Lying stratigraphically above the andesitic tuff unit (which reveals shallow to moderate dips of 20-30° NE) is a thick succession of augite phyric flows & flow breccias which contains augite phenocrysts to 5 mm and varying amounts of white to pale green (epidotized) plagioclase crystals to 2 mm. This unit (2) weathers grey-green and exhibits blocky to subrounded talus boulders as well as forming steep bluffs and cliffs. Magnetism of the augite porphyry varies from moderate to strong. Rarely, minor beds of medium to fine grained sericite, chlorite +/- carbonate altered tuffaceous material was observed as minor interbeds within the augite porphyry package.

Intruding the above stratigraphy are 3 main rock types (pyroxenite - Unit 3, diorite - Unit 4 and monzonite - Unit 6) which exist as small stocks, plugs and dykes.

DARB LAKE



LAY CK

2

KLIYUL CLAIMS

2

4

2

KLIYUL CK.

SOUP CLAIMS

4

DORATELLE CK.

2

3

2

LEGEND

INTRUSIVES

 DIORITE, MONZONITE, SYENITE

 ULTRAMAFIC ROCKS (PYROXENITE)

TAKLA VOLCANICS (UP. TRIASSIC)

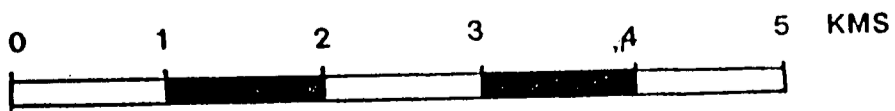
 ANDESITES

 SEDIMENTS (ss, arg. lst.)

3

REGIONAL GEOLOGY

KLIYUL CREEK AREA



★ OCCURRENCES

SCALE 1:50,000

The pyroxenite was observed in the southeast section of the grid as a small plug and dyke-like body. It is described as coarse grained, dark green, dense and very magnetic containing magnetite forming as medium to coarse grained disseminations, clots and fracture fillings.

The most common of the intrusive phases is described as a melanocratic, medium grained, equigranular diorite with mafic phenocrysts (2-3 mm) set in a pale green to white plagioclase rich, fine grained groundmass. This unit is moderately to strongly magnetic and exhibits epidotization of feldspars as well as along fractures while weathering to angular to subangular talus blocks. Locally malachite, azurite are observed along fracture surfaces of this unit. A "gabbroidal" texture is also evidenced near the contacts of the diorite with the augite porphyry flows and flow breccias causing some confusion as to where the actual contact is located.

The monzonitic phase is described as having a massive texture, variably magnetic with locally porphyritic texture due to 2-3 mm wide feldspar crystals set in a fine grained, grey to pinkish-grey, fine grained matrix. In other locations the coarser grained feldspar crystals are nonexistent and 2-4 mm long hornblende lathes (locally aligned) are evident instead. This phase of the monzonite is usually exposed near contact zones. The monzonite exists mainly as dykes striking north, northwest and east-west.

Mineralization found during this programme was restricted to 4 main types as follows.

1. Quartz veins to 0.5 m wide containing chlorite, epidote, malachite, azurite, chalcopyrite, pyrite and locally minor magnetite found mainly within the dioritic unit.
2. Malachite, azurite stained fractures exposed mainly within the augite porphyry flows and flow breccias and the diorite.
3. Magnetite, pyrite, quartz gossanous zones with boxwork texture forming along fracture sets at random orientations and along suspected bedding planes as evidenced along the southwest ends of the grid lines along the contact zone between the lower andesitic tuffs and the upper augite porphyry flows. (This contact zone also reveals calcareous siltstones and minor limestone units in other areas outside of the Soup property boundary and may be the reason more massive occurrences of magnetite and magnetite +/- pyrite are exposed here hence the amount of attention focused on these zones in the past).
4. Magnetite, minor pyrite, quartz stockwork zones cutting augite porphyry flows near the contact of the diorite tongue which bisects lines 617N through 621N in the center of the grid and on which Athlone Resources drilled hole 89-2 which returned results of 3.31 gpt Au over 43.5 meters. (This hole is located on line 622N, 816E).

It is postulated that more stockwork magnetite, silica /- pyrite and gold zones may exist at depth on the Soup property and that the latter two phases of mineralization represent leakage along zones of weakness such as bedding planes, contacts, fracture sets, and shear zones. A plan of all structural measurements taken can be seen on Drawing #5 with the exception of the attitudes of the NE-SW faults indicated along deeply incised gullies which are talus filled but reveal displacement of the northwest trending diorite dykes, magnetite-pyrite gossan zones and both volcanic packages.

Anomalous gold in rock samples are depicted on Drawing 6 and show a concentration of elevated results near and above drill hole 89-2 (Line 622N, 816E) and from within fractures and shears located within the main dioritic body in the southern section of the grid.

The best gold value in rock returned was 38 gm taken from a 1.0 m chip across the magnetite-silica stockwork zone tested by Hole 89-2.

Of interest is that of all anomalous rock samples returned (51) 36 were anomalous in gold only, 7 were anomalous in copper only and 8 were anomalous in both elements.

3.0 GEOPHYSICS

Ground Magnetic Survey

In August, 1994 Peter E. Walcott and Associates Ltd. was contracted to collect ground magnetometer readings on the Soup Property. The operators involved in the survey were Alex Walcott, Gerry MacMillan and Wim Daenens. EDA OMNI + base and mobile magnetometers were employed throughout the survey.

Twelve lines were surveyed covering a total of 6.45 line kilometers. Stations were spaced every 12.5 m.

The terrain on this grid is extremely steep. The lines were all placed on the west facing slope of the ridge.

All the grid lines and stations were tied to UTM co-ordinates in the field. The range of the total field readings is from 54508 nT to 71,576 nT. This implies very localized magnetite concentrations. The strongest highs lie on the southwest side of the grid or towards the valley bottom. The trend of the magnetic highs is northwest-southeast. The dips appear to be steep towards the northeast into the hill.

Interpreted magnetic "breaks" and lineaments are shown superimposed on the 1:5,000 contour plan. These features were interpreted from the Total Field Magnetics, First Vertical Derivative and moving shadow plots in GEOSOFT MapView.

The most prominent "breaks" trend north-south and east-west. A third set, less pronounced, trend northeast-southwest.

4.0 CONCLUSIONS

1. Mapping and rock sampling indicates that copper and especially gold mineralization is related to magnetite-pyrite-silica filled structural zones and bedding planes and that the source of these occurrences may be found topographically higher and at depth from previously tested, conformable 'skarn' showings.
2. A thorough study of fracture density and larger structural control via airphoto interpretation may lead to the identification of areas subjected to more intense ground preparation and possibly more widespread and frequent structurally controlled auriferous magnetite-pyrite-silica mineralization.
3. The highest values from the ground magnetic survey occur at the far west ends of the winglines in the areas of previously tested, exposed magnetite-pyrite-silica occurrences which are mainly bedding controlled.
4. The magnetic highs mentioned above as well as the overall fabric of the magnetic data trends northwest which parallels the orientation of the underlying geology and copper in soil anomalies described in a previous assessment report.
5. Interpreted magnetic breaks occur in north-south, east-west and northeast-southwest directions which correlates well with structural measurements taken in the field.
6. Of interest are the north-south magnetic breaks which correlate very well with previously reported north-south trending gold in soil anomalies and a similarly trending, significantly anomalous area of potassium radiometrics.

REFERENCES

1. Assessment Report #675: Geology of the Soup Claims, K.C. McTaggart, 1965.
2. Assessment Report #5562: Mineralogical Study of Soup Claims, A.J. Sinclair, 1975.
3. Assessment Report #5985: Ground Magnetics, Soup Claims, A.J. Sinclair, 1976.
4. Assessment Report #6410: Geochemical Survey, Soup Claims, B.P. Minerals, 1977.
5. Assessment Report #7033: Litho geochemistry, Soup Claims, A.J. Sinclair, 1978.
6. Assessment Report #9485: Geochemistry, Soup Claims, Vital Resources, 1981.
7. Assessment Report #10,743: Geochem, Geophysics, Geology, Soup Claims, Noranda Exploration, 1982.
8. Assessment Report #13,315: Geology, Geochem, Soup Claims, B.P. Minerals, 1984.
9. Assessment Report #15,201: Magnetometer, Rock Sampling, Soup Claims, C.M. Rebagliati, 1986.
10. Summary Report on the Soup Claims, Rebagliati Geological Consulting Ltd. for Athlone Resources Ltd., 1988.
11. Summary Report on the Soup Claims (Drilling), Rebagliati Geological Consulting Ltd. for Athlone Resources Ltd., 1989.
12. Exploration Report on the Soup Property, Teck Explorations Ltd., 1991.

13. Lord, C.S.:

McConnell Creek Map Area, B.C.,
G.S.C. Memoir 251, 1948.

14. Roots, E.F.:

Aiken Lake Map Area, B.C., G.S.C.
Memoir 274, 1954.

APPENDIX I
LABORATORY ANALYTICAL TECHNIQUES

ANALYTICAL METHOD DESCRIPTIONS FOR GEOCHEMICAL ASSESSMENT REPORTS

The methods listed are presently applied to analyse geological materials by the Noranda Geochemical Laboratory at Vancouver.

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 geochemical analysis.

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

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 0.4 g and chemical quantities are doubled relative to the above noted method for digestion.

The concentrations of Ag, Cd, Co, Cu, Fe, Mn, Mo, Ni, Pb, V and Zn can be determined directly from the digest (dissolution) with a conventional atomic absorption spectrometric procedure. 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 dissolution with an AA-475 equipped with electrodeless discharge lamp (EDL).

Arsenic - As: 0.2 - 0.3 g sample is digested with 1.5 ml of perchloric 70% and 0.5 ml of conc. nitric acid. A Varian AA-475 equipped with an As-EDL is used to measure arsenic content in the digest.

Barium - Ba: 0.1 g sample digested overnight with conc. perchloric, nitric and hydrofluoric acid; Potassium chloride added to prevent ionization. Atomic absorption using a nitrous oxide-acetylene flame determines Ba from the aqueous solution.

Bismuth - Bi: 0.2 - 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 with an AA-475 complete with EDL.

Gold - Au: 10.0 g sample is digested with aqua regia (1 part nitric and 3 parts hydrochloric acid). Gold is extracted with MIBK from the aqueous solution. AA is used to determine Au.

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 the use of 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 from a perchloric-nitric decomposition, usually from the multi-element digestion, is buffered. The aqueous solution is exposed to laser light, and the luminescence of the uranyl ion is quantitatively measured on the UA-3 (Scintrex).

N.B.: If additional elemental determinations are required on panned samples, state this at the time of sample submission. Requests after gold determinations would be futile.

LOWEST VALUES REPORTED IN PPM:

Ag - 0.2	Mn - 20	Zn - 1	Au - 0.01
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	

APPENDIX II

ROCK GEOCHEMICAL RESULTS AND DESCRIPTIONS

NORANDA DELTA LABORATORY

Geochemical Analysis

Project Name & No.: SOUP - 45550

Geol.: G.G.

Date received: AUG. 04

LAB CODE: 9408-014

Material: 7 Rx

Sheet: 1 of 1

Date completed: AUG. 18

Remarks: * Sample screened @ -35 MESH (0.5 mm)

** Organic, Δ Humus, S Sulfide

Au - 10.0 g sample digested with aqua-regia and determined by A.A. (D.L. 5 PPB)

ICP - 0.2 g sample digested with 3 ml HClO₄/HNO₃ (4:1) at 203 °C for 4 hours diluted to 10 ml with water. Leeman PS3000 ICP determined elemental contents.

N.B. The major oxide elements and Ba, Be, Ce, La, Li, Ga are rarely dissolved completely from geological materials with this acid dissolution method.

SAMPLE No.	Au	Ag	Al	As	Ba	Bc	Bi	Ca	Cd	Ce	Co	Cr	Cu	Fe	K	La	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Sr	Ti	V	Zn
	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm
GG0150 rx	10	0.2	3.92	7	72	0.2	5	4.23	0.3	61	24	45	150	7.34	0.18	9	8	1.35	652	1	0.08	15	0.10	4	278	0.41	279	49
157	5	0.2	0.20	2	5	0.2	5	0.51	0.2	11	3	167	92	0.58	0.01	2	2	0.21	181	1	0.01	5	0.01	10	3	0.01	15	5
158	5	1.2	1.60	4	177	0.2	5	2.18	0.4	30	13	112	1124	3.30	0.30	6	6	1.14	436	1	0.05	8	0.06	4	25	0.11	120	31
163	6100	8.0	0.41	222	110	0.2	5	0.03	0.2	8	75	110	2337	22.48	0.19	7	2	0.12	118	149	0.03	21	0.07	1898	14	0.03	173	125
GG165	3300	4.8	5.09	11	700	0.2	5	2.13	0.2	44	185	52	4993	15.20	1.13	12	18	3.06	828	16	0.09	34	0.11	8	122	0.36	331	87
GG169	4100	9.6	0.57	29	672	0.4	5	0.06	0.3	19	230	135	2998	33.70	0.02	15	2	0.18	598	46	0.02	38	0.10	5	14	0.01	214	60
GG0175 rx	60	0.2	4.25	2	319	0.2	5	3.71	0.2	58	26	45	110	5.94	0.67	12	8	1.33	489	1	0.08	26	0.09	2	191	0.41	208	36

1/00 94 6, 18

NORANDA DELTA LABORATORY

Geochemical Analysis

Project Name & No.: SOUP - 45550

Geol.: G.G.
Sheet: 1 of 2

Date received: AUG. 05
Date completed: AUG. 24

LAB CODE: 9408-021

Material: 52 Rx

Remarks: * Sample screened @ -35 MESH (0.5 mm)

■ Organic, A Humus, S Sulfide

Au - 10.0 g sample digested with aqua-regia and determined by A.A. (D.L. 5 PPB)

ICP - 0.2 g sample digested with 3 ml HClO₄/HNO₃ (4:1) at 203 °C for 4 hours diluted to 10 ml with water. Leeman PS3000 ICP determined elemental contents.

N.B. The major oxide elements and Ba, Be, Ce, La, Li, Ga are rarely dissolved completely from geological materials with this acid dissolution method.

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Bc ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
125	1E0211 rx	5	0.2	5.02	2	225	0.4	5	4.48	0.2	64	14	19	79	5.38	0.27	10	9	1.61	559	4	0.10	11	0.12	2	227	0.64	252	42
126	1E0223	5000	6.4	1.35	13	590	0.3	5	0.12	0.2	9	212	115	8362	29.85	0.70	12	2	0.17	317	1677	0.06	18	0.19	2	61	0.05	239	35
127	1E0226	5	0.2	3.78	11	90	0.3	5	3.05	0.2	55	19	25	87	7.48	0.33	10	11	3.10	865	6	0.18	21	0.10	2	135	0.56	251	48
128	1E0228	5	0.2	4.97	4	113	0.3	5	3.47	0.2	53	18	19	89	6.37	0.32	10	14	2.83	650	3	0.08	22	0.10	2	223	0.48	256	46
129	1E0229	50	0.2	4.26	2	138	0.5	5	4.47	0.2	59	22	49	404	12.96	0.23	15	5	0.60	513	6	0.09	5	0.15	2	372	0.30	134	33
130	1E0230	180	0.2	0.81	14	65	0.5	6	0.13	0.2	6	4	33	357	34.04	0.18	12	2	0.28	337	8	0.05	13	0.09	2	24	0.15	143	49
131	1E0237	20	0.4	4.10	2	177	0.4	5	3.78	0.3	56	47	63	404	6.03	0.36	12	8	1.48	490	4	0.08	32	0.11	2	225	0.44	198	40
132	1E0238	5	0.2	4.61	2	310	0.3	5	3.90	0.4	56	16	29	179	5.27	0.51	10	8	1.29	433	1	0.09	12	0.11	2	214	0.58	234	32
133	1E0246	5	0.2	4.02	5	38	0.4	5	5.20	0.3	55	37	160	95	7.07	0.19	9	18	4.80	807	3	0.05	57	0.07	2	77	0.08	267	70
134	1E0250	740	0.4	1.95	2	123	0.2	5	0.77	0.2	20	33	209	35	5.11	0.25	5	8	1.69	503	41	0.04	35	0.04	2	17	0.09	140	43
135	1E0254	20	0.2	4.10	8	28	0.4	5	6.31	0.7	63	37	157	119	6.97	0.15	13	18	4.78	1051	5	0.04	55	0.12	2	90	0.31	247	65
136	1E0258 S	180	1.6	3.81	133	5	0.3	5	3.68	0.2	44	339	31	914	10.27	0.03	9	2	0.68	1261	24	0.02	10	0.05	2	37	0.02	44	39
138	1E0259	240	2.4	2.73	2	68	0.3	5	2.33	0.2	54	53	80	1124	11.82	0.12	23	5	1.00	288	50	0.06	38	0.10	2	233	0.30	220	27
139	1E0260	60	0.2	3.45	2	76	0.3	5	2.69	0.4	47	26	31	373	5.97	0.28	11	8	1.49	383	1	0.08	18	0.12	2	212	0.41	214	30
140	1E0261	10	0.2	4.23	2	148	0.3	5	3.62	0.4	53	15	36	77	5.19	0.35	11	9	1.54	504	2	0.10	13	0.10	2	190	0.47	213	38
141	1E0265	5	0.2	0.08	2	5	0.2	5	0.02	0.2	5	2	283	12	0.59	0.02	2	1	0.03	35	12	0.01	4	0.01	2	2	0.01	8	4
142	1E0266	5	0.2	3.89	4	129	0.4	5	3.79	0.9	62	21	37	66	6.37	0.45	13	9	1.90	925	2	0.20	10	0.12	2	196	0.53	223	60
143	1E0269	5	0.2	4.39	6	128	0.4	5	3.67	0.6	60	34	31	157	8.02	0.29	15	14	2.90	1252	1	0.35	19	0.11	2	119	0.48	303	115
144	1E0270	10	0.2	4.43	10	279	0.3	5	3.63	0.2	58	10	15	68	4.55	0.61	8	9	0.82	354	1	0.11	3	0.13	2	255	0.33	136	28
145	1E0273	1100	2.0	0.46	2	39	0.2	5	0.12	0.2	5	54	287	103	11.37	0.14	2	1	0.09	190	37	0.01	16	0.04	2	9	0.01	80	23
146	1E0276	10	0.2	2.92	2	130	0.3	5	2.23	0.2	49	20	123	236	4.12	0.36	8	5	1.23	258	1	0.08	32	0.09	2	212	0.21	112	25
147	1E0277	10	0.2	4.30	5	132	0.4	5	5.25	0.5	68	25	82	67	5.81	0.27	12	11	2.87	890	1	0.08	34	0.08	2	205	0.35	218	58
148	1E0278	5	0.2	5.29	2	202	0.3	5	6.27	0.7	72	10	48	174	5.53	0.16	9	4	0.25	598	1	0.06	14	0.11	2	332	0.46	225	13
151	1E0280	5	0.2	5.48	14	93	0.6	13	5.44	0.6	77	53	608	82	6.40	0.25	14	22	8.29	1049	1	0.03	484	0.11	2	65	0.30	170	80
152	1E0281	40	0.2	4.64	2	231	0.4	5	3.86	0.2	66	15	32	153	5.58	0.61	10	7	1.44	498	2	0.14	15	0.11	2	264	0.48	221	40
153	1E0284	1100	0.2	5.70	2	1121	0.5	5	0.64	0.2	27	29	59	47	8.05	2.32	8	9	1.56	398	2	0.06	18	0.12	2	47	0.34	333	44
154	1E0286	5	0.2	5.22	2	144	0.4	5	4.78	0.2	78	31	78	185	6.76	0.22	13	12	2.38	956	2	0.10	41	0.11	2	343	0.44	235	64
155	1E0288	50	0.2	0.66	18	1001	0.4	5	12.29	1.6	93	8	180	33	1.36	0.07	9	7	0.90	1225	10	0.04	26	0.03	5	385	0.01	59	44
157	1E0291	30000	7.2	0.28	2	93	0.2	5	0.05	0.2	7	8	190	342	9.13	0.14	3	1	0.05	55	42	0.13	1	0.05	2	16	0.12	61	10
158	1E0295	10	0.2	6.10	4	238	0.4	5	6.07	0.2	82	29	17	188	7.54	0.50	12	11	2.20	1055	1	0.11	10	0.10	2	291	0.44	340	88
159	1E0305	230	0.2	6.14	2	1615	0.4	5	0.49	0.2	26	16	35	581	10.31	2.48	11	15	2.37	823	4	0.07	14	0.13	2	33	0.47	259	65
160	1E0307	30	0.2	3.60	5	121	0.3	5	3.33	0.2	67	32	40	177	7.00	0.24	11	8	1.15	426	4	0.12	17	0.10	2	216	0.45	270	26
161	1E0309	350	0.2	4.57	8	107	0.7	5	4.87	0.2	107	43	58	5014	10.65	0.18	35	6	0.80	554	3	0.11	30	0.21	2	368	0.36	189	39
162	1E0312	3600	1.6	2.96	14	31	0.5	5	3.54	0.2	266	6	43	683	24.37	0.08	193	3	0.10	483	17	0.07	10	0.10	2	263	0.23	163	39
164	1E0319	20	0.2	5.09	11	52	0.4	8	4.59	0.3	78	20	31	139	6.65	0.16	15	12	2.35	650	4	0.12	24	0.09	2	222	0.62	297	43

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Bc ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm	0408-021 Pg. 2 of 2
165	GG0178	40	0.2	1.96	12	9	0.3	9	5.62	0.8	79	32	137	28	4.30	0.05	11	10	2.35	671	8	0.05	31	0.08	5	145	0.14	162	38	
166	GG0181	20	0.2	3.41	18	25	0.3	5	4.38	0.2	68	93	135	148	6.51	0.11	10	6	1.65	649	4	0.12	65	0.10	2	233	0.24	153	40	
167	GG0183	20	0.2	4.62	3	242	0.3	5	3.76	0.2	70	30	30	262	5.02	0.67	13	8	0.93	374	4	0.11	16	0.09	2	241	0.60	216	24	
168	GG0189	1400	1.6	0.19	2	24	0.2	5	0.07	0.2	5	5	248	42	2.06	0.04	2	1	0.10	55	128	0.04	5	0.02	3	8	0.03	25	6	
169	GG0193	10	0.2	4.07	17	209	0.6	9	8.79	0.4	95	34	128	165	8.19	0.76	14	17	2.86	1210	4	0.07	42	0.09	2	124	0.32	284	91	
170	GG0194	30	0.2	3.50	20	190	0.6	5	7.96	1.2	92	30	187	50	10.47	0.54	14	22	3.55	1436	4	0.07	50	0.14	6	158	0.09	344	102	
171	GG0197	5	0.2	0.41	6	11	0.2	5	0.86	0.8	28	6	319	385	1.04	0.02	5	4	0.47	178	10	0.02	12	0.02	2	12	0.03	33	15	
172	GG0198	5	0.2	3.23	19	160	0.5	7	7.20	0.9	81	46	113	283	7.81	0.29	11	18	3.06	1025	2	0.06	49	0.10	2	84	0.40	283	57	
173	GG0201	140	23.2	0.63	19	19	0.3	8	6.01	2.9	70	58	171	41000	5.16	0.03	8	6	0.48	736	9	0.03	21	0.05	2	75	0.08	72	34	
175	GG0204	10	0.2	2.12	14	58	0.3	12	4.98	0.3	63	52	81	103	10.82	0.33	11	10	3.42	640	2	0.18	47	0.04	2	39	0.40	474	47	
176	GG0205	3700	4.4	0.46	57	15	1.0	29	2.03	0.2	58	359	39	3518	38.59	0.05	22	5	0.49	562	81	0.03	44	0.13	13	10	0.07	263	61	
178	GG0216	140	0.2	8.04	2	709	0.5	13	1.05	0.2	36	22	34	1134	12.56	2.54	15	20	3.88	1284	1	0.04	26	0.13	2	18	0.54	305	140	
179	GG0218	5	0.2	5.95	8	226	0.4	7	4.83	0.3	74	16	29	81	6.88	0.54	12	10	1.74	591	2	0.09	16	0.09	2	257	0.40	296	39	
180	GG0228	5	0.2	5.80	10	113	0.4	11	4.90	0.3	76	16	31	124	6.13	0.36	13	12	2.09	603	1	0.08	24	0.10	2	271	0.45	244	36	
181	GG0229	20	0.2	5.63	2	1194	0.6	5	2.78	0.2	60	23	46	1011	10.73	0.97	15	9	0.88	356	9	0.09	28	0.11	2	310	0.35	286	42	
182	GG0231	360	0.2	2.14	43	249	0.5	5	1.17	0.2	39	45	82	1510	31.50	0.47	22	6	0.54	379	35	0.14	18	0.17	2	185	0.25	211	56	
183	GG0232 IX	550	0.4	0.14	26	79	0.9	36	0.10	0.2	11	42	277	289	45.56	0.10	20	2	0.09	238	11	0.02	58	0.13	11	28	0.39	267	74	

NORANDA DELTA LABORATORY

Geochemical Analysis

Project Name & No.: SOUP - 45550

Geol.: G.G.

Date received: AUG. 10

LAB CODE: 9408-031

Material: 37 Rx

Sheet: 1 of 2

Date completed: AUG. 26

Remarks: * Sample screened @ -35 MESH (0.5 mm)

‡ Organic, A Humus, S Sulfide

Au - 10.0 g sample digested with aqua-regia and determined by A.A. (D.L. 5 PPB)

ICP - 0.2 g sample digested with 3 ml HClO₄/HNO₃ (4:1) at 203 °C for 4 hours diluted to 10 ml with water. Leeman PS3000 ICP determined elemental contents.

N.B. The major oxide elements and Ba, Be, Ce, La, Li, Ga are rarely dissolved completely from geological materials with this acid dissolution method.

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
236	GG0207 rx	11000	19.2	0.28	92	68	0.5	5	0.02	0.2	173	1076	40	1428	27.80	0.08	155	1	0.06	196	888	0.11	11	0.11	18	58	0.01	226	26
238	GG0208	70	0.4	4.33	2	339	0.3	5	3.10	0.2	64	16	22	77	5.82	0.56	12	7	1.43	455	3	0.07	13	0.08	2	224	0.35	206	39
239	GG0209	50	0.2	1.66	9	45	0.3	5	2.67	0.2	59	24	40	1539	16.28	0.10	15	7	1.43	859	1	0.04	14	0.06	2	42	0.20	193	54
241	GG0212	5	0.8	1.90	10	26	0.2	9	2.81	0.8	58	16	91	1406	2.65	0.07	7	11	2.28	448	3	0.03	37	0.06	33	11	0.20	122	45
242	GG0214	790	0.4	0.59	35	107	0.3	13	0.06	0.2	8	394	85	2042	41.75	0.24	26	2	0.08	223	25	0.08	25	0.20	2	79	0.07	308	50
243	GG0220	5	0.2	3.45	2	195	0.4	11	3.47	0.3	68	34	47	198	8.35	0.40	14	13	3.08	936	2	0.08	26	0.12	2	74	0.41	317	78
244	GG0221	20	0.4	4.92	2	353	0.4	5	4.07	0.6	78	22	9	202	6.41	0.74	12	11	2.08	1017	1	0.08	8	0.13	2	183	0.36	221	79
245	GG0223	590	0.8	1.08	2	229	0.2	5	0.06	0.2	5	39	5	55	6.45	0.52	3	2	0.14	111	3	0.02	4	0.05	8	11	0.05	82	14
246	GG0224	5	0.4	3.60	2	146	0.3	5	3.64	0.2	71	13	46	121	5.26	0.21	10	5	1.45	523	1	0.12	16	0.07	2	159	0.35	199	36
247	GG0225	5700	2.0	0.92	2	94	0.2	5	1.15	0.2	33	21	24	140	6.52	0.15	5	4	0.59	409	58	0.11	10	0.09	2	24	0.02	63	20
248	GG0236	40	0.2	3.29	5	164	0.3	5	2.58	0.4	66	18	18	199	6.18	0.44	11	10	1.83	451	2	0.11	20	0.10	2	133	0.45	226	33
251	GG0237	5	0.2	2.22	3	337	0.3	5	3.43	0.4	59	12	8	70	2.29	0.56	9	5	0.87	634	3	0.08	7	0.07	2	104	0.15	92	22
252	GG0238	5	0.4	5.17	2	300	0.3	5	3.60	0.3	62	20	14	99	7.10	0.71	15	11	2.14	642	2	0.08	13	0.09	2	180	0.50	285	54
253	GG0241	390	1.2	4.69	7	7	0.5	5	5.11	0.2	71	92	99	951	24.15	0.04	16	3	0.37	390	56	0.05	27	0.19	2	589	0.26	208	37
254	LE0184	11000	4.8	2.83	2	560	0.2	5	0.16	0.2	5	17	90	1832	20.56	1.28	8	4	0.89	456	198	0.09	9	0.14	2	25	0.24	222	46
255	LE0185	60	0.4	6.11	2	292	0.4	9	4.11	1.1	66	87	46	1824	7.14	0.51	16	14	3.37	965	5	0.06	44	0.10	2	212	0.41	279	82
257	LE0187	5600	3.2	2.79	5	357	0.2	5	0.22	0.2	5	37	87	1524	18.94	1.05	8	5	1.09	425	73	0.04	21	0.10	2	26	0.27	203	51
258	LE0188	10	0.4	3.26	2	101	0.3	5	2.01	0.3	45	34	124	285	5.76	0.20	11	8	2.35	394	13	0.07	44	0.09	2	142	0.35	187	37
259	LE0194	320	1.6	2.14	2	169	0.2	5	0.84	0.2	31	12	44	549	5.07	0.28	12	5	1.22	192	6	0.11	13	0.09	2	122	0.30	138	24
260	LE0195	340	2.4	3.51	2	87	0.3	5	3.32	1.0	61	93	83	8709	4.76	0.21	13	6	1.23	392	2	0.07	43	0.10	2	271	0.37	189	30
261	LE0196	9100	0.4	3.73	2	1390	0.3	5	0.17	0.2	7	16	41	433	21.70	2.06	13	9	1.11	562	3	0.05	7	0.10	2	24	0.27	152	55
262	LE0197	8500	1.6	1.99	3	446	0.2	5	0.02	0.2	5	18	57	652	15.80	0.76	8	5	0.82	308	322	0.04	2	0.08	2	14	0.12	160	35
263	WZ0020	1300	1.6	5.06	3	672	0.3	5	0.55	0.2	25	50	43	1396	9.87	1.21	15	16	3.60	1215	6	0.06	35	0.11	2	13	0.54	281	87
264	WZ0021	38000	4.0	2.19	14	297	0.3	5	0.21	0.2	7	29	32	2381	22.35	0.59	13	8	1.47	505	44	0.06	12	0.11	2	27	0.22	176	56
265	WZ0022	240	0.4	5.42	2	983	0.3	5	1.30	0.4	36	13	7	258	3.51	2.53	10	8	1.18	527	1	0.08	8	0.11	2	32	0.20	138	44
266	WZ0023	5600	0.4	4.26	11	1594	0.2	5	0.25	0.2	9	27	29	1176	14.52	1.94	11	11	1.46	576	121	0.12	11	0.11	2	50	0.29	200	56
267	WZ0024	1100	0.8	6.69	2	1534	0.4	10	1.50	0.2	43	37	46	1465	10.69	1.96	16	24	4.11	1243	7	0.05	37	0.11	2	94	0.51	286	88
268	WZ0025	50	0.4	4.11	2	710	0.3	6	1.74	0.3	50	27	22	196	5.34	1.27	13	12	2.09	709	1	0.07	17	0.10	2	91	0.31	188	45
269	WZ0026	110	0.8	5.08	7	425	0.4	12	2.04	0.6	51	39	37	587	7.73	0.86	17	18	3.64	833	10	0.05	35	0.11	2	115	0.48	252	56
270	WZ0027	100	0.4	4.60	6	213	0.4	12	3.40	0.7	66	32	62	793	7.83	0.63	18	14	2.99	805	7	0.11	32	0.10	2	179	0.45	230	49
271	WZ0028	30	0.2	4.12	2	733	0.3	5	1.01	0.2	32	29	28	528	6.00	1.17	11	12	2.26	665	4	0.08	19	0.11	2	82	0.34	199	56
272	WZ0029	2900	0.4	5.75	2	1185	0.4	5	1.15	0.2	37	56	50	1226	13.00	1.62	13	18	3.54	1049	3	0.05	28	0.13	2	101	0.47	272	72
273	WZ0030	1100	0.2	5.73	2	1238	0.3	5	0.69	0.2	24	25	46	775	9.51	1.61	10	21	3.87	1088	2	0.04	37	0.10	2	53	0.44	241	82
275	WZ0031	22000	0.8	2.18	2	975	0.2	5	0.09	0.2	5	7	37	396	19.07	1.26	8	6	0.72	369	3	0.04	2	0.08	2	27	0.20	119	35
276	WZ0032	680	0.2	7.48	2	1348	0.3	5	0.74	0.2	29	11	33	716	12.43	3.03	13	20	3.28	1472	1	0.05	26	0.10	2	46	0.53	265	119

1. G

I.T. No.	SAMPLE No.	Au	Ag	Al	As	Ba	Bc	Bi	Ca	Cd	Ce	Co	Cr	Cu	Fe	K	La	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Sr	Ti	V	Zn	0408-031
		ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm
277	WZ0033	2400	0.2	5.33	2	955	0.3	5	0.41	0.2	23	19	29	663	16.65	1.99	13	15	2.43	1125	6	0.03	13	0.08	2	29	0.35	202	99	
278	WZ0034 rx	1300	0.2	5.31	2	1036	0.3	10	0.72	0.2	32	22	20	853	10.32	2.06	13	16	2.46	919	7	0.04	17	0.09	2	62	0.39	214	76	

NORANDA DELTA LABORATORY

Geochemical Analysis

Project Name & No.: SOUP - 45550

Geol.: G.G.

Date received: AUG. 17

LAB CODE: 9408-041

Material: 23 Rx

Sheet: 1 of 1

Date completed: AUG. 22

Remarks: * Sample screened @ - 35 MESH (0.5 mm)

‡ Organic, Δ Humus, S Sulfide

Au - 10.0 g sample digested with aqua-regia and determined by A.A. (D.L. 5 PPB)

ICP - 0.2 g sample digested with 3 ml HClO₄/HNO₃ (4:1) at 203 °C for 4 hours diluted to 10 ml with water. Leeman PS3000 ICP determined elemental contents.

N.B. The major oxide elements and Ba, Be, Ce, La, Li, Ga are rarely dissolved completely from geological materials with this acid dissolution method.

LT. No.	SAMPLE No.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cu	Fe	K	La	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Sr	Ti	V	Zn
		ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	
61	GG - 0251	10	0.2	4.59	6	88	0.3	5	5.62	0.2	84	25	37	184	5.66	0.23	13	5	0.17	364	2	0.08	17	0.08	2	307	0.41	200	14
62	252	60	4.0	1.38	19	89	0.3	5	6.51	1.2	90	170	47	5928	3.13	0.12	18	10	1.31	721	11	0.06	21	0.06	2	128	0.14	102	32
63	253	20	0.2	4.14	12	494	0.4	5	3.97	0.2	64	10	68	65	17.65	1.11	11	16	2.35	1156	3	0.03	32	0.08	2	41	0.21	215	155
64	255	20	0.8	0.96	17	42	0.3	5	17.50	0.2	65	11	74	2706	2.36	0.09	3	9	0.83	1242	3	0.04	9	0.04	2	143	0.05	85	28
65	GG - 256	10	0.2	4.55	2	169	0.2	5	4.80	0.2	74	7	22	316	7.04	0.46	11	5	0.41	351	1	0.11	6	0.13	2	323	0.39	220	19
67	GG - 259	970	2.4	3.19	2	72	0.2	5	2.67	0.2	81	41	261	1855	8.99	0.16	33	7	1.97	435	5	0.10	206	0.04	2	180	0.25	224	42
68	261	2100	1.2	5.61	2	32	0.2	5	0.64	0.2	25	162	83	2120	17.60	0.16	8	25	5.23	1172	61	0.02	46	0.08	2	29	0.34	503	125
69	262	1200	3.2	1.05	5	71	0.2	5	0.19	0.2	16	70	141	2127	24.71	0.17	4	3	0.42	181	324	0.05	6	0.06	2	14	0.19	325	35
70	263	60	0.2	4.56	7	46	0.2	5	4.00	0.2	53	80	75	8615	5.49	0.16	4	11	2.57	625	1	0.10	58	0.04	2	195	0.31	233	46
71	GG - 264	100	0.4	3.93	13	196	0.3	5	4.88	1.1	86	46	36	1057	7.76	0.42	11	23	3.65	1313	2	0.05	32	0.07	2	56	0.31	386	86
72	GG - 265	5100	22.4	2.12	12	63	0.2	5	3.00	0.2	67	90	60	3950	18.96	0.10	14	11	1.65	725	68	0.04	19	0.08	2	80	0.11	190	58
73	268	690	4.8	4.55	2	457	0.2	5	2.71	0.2	67	51	8	14000	3.21	1.08	11	5	0.34	256	3	0.09	20	0.04	2	231	0.26	53	30
74	269	1900	2.4	0.76	2	264	0.2	5	0.09	0.2	20	10	147	422	3.76	0.15	4	4	0.40	112	2	0.06	2	0.05	2	10	0.04	41	21
75	273	10	0.4	0.56	2	55	0.2	5	0.98	0.2	24	2	175	43	0.65	0.12	3	3	0.16	200	1	0.02	3	0.01	2	22	0.03	23	8
77	GG - 274	130	0.4	1.76	5	125	0.2	5	1.33	0.2	35	45	38	3756	5.19	0.28	9	6	1.14	588	4	0.07	5	0.11	2	29	0.32	153	62
78	GG - 277	2500	0.8	5.15	3	1022	0.2	5	3.64	0.2	64	118	47	2363	9.55	1.22	14	17	3.03	938	5	0.05	31	0.11	2	77	0.37	269	87
79	278	40	0.2	5.16	8	386	0.2	5	4.29	0.2	69	49	72	821	7.87	1.01	13	18	3.58	829	1	0.06	40	0.11	2	78	0.31	289	84
80	279	140	1.2	3.95	7	71	0.2	5	3.97	0.3	62	35	125	1546	5.99	0.15	13	8	3.07	691	2	0.18	56	0.10	2	173	0.34	178	70
81	280	70	0.4	4.63	3	190	0.2	5	2.07	0.4	56	361	203	5514	7.64	0.35	16	16	4.23	951	3	0.05	118	0.13	2	53	0.28	232	82
82	GG - 282	200	0.8	3.67	3	51	0.2	5	3.90	0.2	70	51	105	2495	4.43	0.13	12	5	1.29	375	2	0.09	28	0.07	2	300	0.27	199	24
83	GG - 283	50	0.2	3.68	2	349	0.2	5	2.04	0.2	56	18	16	5114	8.02	0.60	12	9	1.56	378	1	0.07	19	0.07	2	165	0.26	461	42
84	286	1400	6.4	5.76	8	638	0.4	5	4.40	7.6	86	123	17	12000	9.94	1.91	16	17	2.44	1178	15	0.05	28	0.13	2	80	0.28	242	505
85	GG - 0287	140	4.4	3.65	2	191	0.3	5	3.54	1.0	77	134	25	6811	7.21	0.47	15	14	2.24	996	120	0.06	18	0.10	7	97	0.31	228	241

25/08 96/99

NORANDA DELTA LABORATORY

Geochemical Analysis

Project Name & No.: SOUP - 45550

Geol.: L.E.

Date received: SEP. 09

LAB CODE: 9409-019

Material: 26 Soils & 19 Rx

Sheet: 1 of 2

Date completed: SEP. 27

Remarks: * Sample screened @ -35 MESH (0.5 mm)

□ Organic, Δ Humus, S Sulfide

Au - 10.0 g sample digested with aqua-regia and determined by A.A. (D.L. 5 PPB)

ICP - 0.2 g sample digested with 3 ml HClO₄/HNO₃ (4:1) at 203 °C for 4 hours diluted to 10 ml with water. Leeman PS3000 ICP determined elemental contents.

N.B. The major oxide elements and Ba, Be, Ce, La, Li, Ga are rarely dissolved completely from geological materials with this acid dissolution method.

T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
5	LE0326 rx	5	0.2	3.19	15	96	0.4	5	5.29	0.8	60	21	35	152	5.85	0.51	13	18	2.61	1128	1	0.07	23	0.08	2	241	0.08	247	102
5	LE0329	10	0.2	3.83	12	91	0.3	5	4.10	0.4	60	31	19	204	6.64	0.30	14	8	1.66	672	1	0.15	26	0.13	2	334	0.45	235	42
7	LE0332	30	0.2	4.41	6	451	0.3	5	3.21	0.2	55	24	4	412	4.89	1.01	13	11	0.94	363	1	0.08	8	0.13	2	224	0.47	161	37
3	LE0337	570	0.8	3.63	12	67	0.4	5	7.80	0.3	59	40	33	1162	16.61	0.17	12	7	0.59	2832	4	0.05	17	0.13	2	157	0.17	147	77
01	LE0345	280	1.6	2.74	4	345	0.9	5	4.89	1.2	276	61	30	486	23.30	0.47	269	8	0.73	1508	6	0.03	14	0.09	10	143	0.10	76	81
02	LE0350	20	0.2	0.65	21	37	1.1	5	0.32	3.9	25	31	15	249	36.54	0.08	26	4	0.35	741	9	0.05	38	0.12	25	38	0.05	394	115
04	LE0353	670	0.8	0.18	33	31	0.6	5	0.11	4.0	7	30	17	450	37.93	0.06	17	3	0.11	438	10	0.03	30	0.11	26	5	0.05	170	66
06	LE0354	3200	2.8	0.65	26	28	0.8	5	0.51	3.8	20	58	17	310	37.31	0.07	21	3	0.11	587	9	0.03	31	0.13	23	54	0.04	107	74
08	LE0355 rx	80	0.2	5.37	3	28	0.4	5	0.98	0.8	32	88	197	655	8.90	0.04	18	22	6.47	1339	1	0.02	111	0.15	2	10	0.38	295	130

7/09 GG
F7-1111

1000

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Bc ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm	9409-010 Pg. 2 of 2
110	LE0356 rx	50	0.2	0.84	12	338	0.4	5	0.69	1.3	26	12	99	192	27.81	0.52	20	3	0.18	308	7	0.18	9	0.19	2	308	0.16	459	40	
111	LE0359	6100	2.4	1.13	3	426	0.2	5	0.02	0.2	5	13	267	426	13.76	0.64	5	2	0.16	155	3	0.02	8	0.06	2	6	0.11	151	22	
112	LE0366	1600	0.8	3.40	15	26	0.5	5	4.42	0.6	43	129	16	9620	27.06	0.06	13	3	0.09	1244	4	0.03	38	0.18	2	189	0.14	135	55	
114	LE0367	10	0.2	3.14	7	57	0.3	5	0.63	0.4	31	221	58	7619	4.32	0.26	9	13	2.85	563	1	0.08	76	0.17	2	14	0.30	169	54	
115	LE0370	10	0.2	4.30	8	47	0.4	5	5.23	0.4	67	17	22	1013	2.91	0.25	13	3	0.11	403	2	0.09	10	0.16	2	266	0.31	137	14	
116	LE0375	10	0.2	5.90	9	42	0.6	5	7.38	0.2	83	69	18	4821	4.63	0.13	27	5	0.47	890	2	0.07	15	0.18	2	340	0.34	173	44	
117	LE0378	410	0.2	0.30	6	3	0.2	5	0.19	0.2	5	8	13	994	24.01	0.01	5	1	0.06	350	11	0.01	15	0.09	2	7	0.05	65	34	
118	LE0379	10	0.2	4.47	2	275	0.4	5	3.07	0.2	55	9	26	135	4.36	0.90	10	11	1.14	603	2	0.09	18	0.10	2	256	0.32	142	38	
119	LE0385	5	0.2	5.33	2	236	0.4	5	5.46	0.2	58	17	27	159	5.86	0.43	9	6	0.55	702	2	0.09	17	0.09	2	342	0.32	152	35	
120	SL0004 rx	290	2.4	3.57	5	41	0.3	5	3.57	1.0	66	39	21	8395	6.23	0.10	16	10	1.78	558	2	0.06	16	0.14	2	338	0.35	243	65	

IMPORTED

NORANDA DELTA LABORATORY

Geochemical Analysis

Project Name & No.: SOUP - 45550

Geol. G.G.

Date received: AUG. 24

LAB CODE: 9408-059

Material: 6 Rx

Sheet 1 of 1

Date completed: SEP. 07

Remarks: Sample screened @ -35 MESH (0.5 mm)

Organic, Humus, Sulfide

Au - 10.0 g sample digested with aqua-regia and determined by A.A. (D.L. 5 PPB)

ICP - 0.2 g sample digested with 3 ml HClO₄/HNO₃ (4:1) at 203 °C for 4 hours diluted to 10 ml with water. Leeman PS3000 ICP determined elemental contents.

N.B. The major oxide elements and Ba, Be, Ce, La, Li, Ga are rarely dissolved completely from geological materials with this acid dissolution method.

.T.	SAMPLE	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cu	Fe	K	La	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Sr	Ti	V	Zn
o.	No.	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm
36	GG0290 rx	4500	16.0	5.80	2	1131	0.3	5	0.58	0.7	31	238	10	17000	7.45	2.77	9	6	0.84	367	33	0.07	32	0.12	2	70	0.13	75	60
37	GG0291	470	2.0	2.82	40	5108	0.5	5	5.47	0.8	66	16	100	1309	3.32	1.44	10	6	1.04	803	5	0.06	17	0.07	2	197	0.04	103	50
38	GG0292	230	2.8	4.37	13	56	0.5	5	6.76	1.8	71	41	22	7510	5.17	0.08	9	9	1.41	1043	5	0.08	14	0.04	2	416	0.21	137	50
39	GG0295	10	0.2	4.56	6	415	0.4	5	2.62	1.4	58	96	25	8524	6.06	0.93	12	10	1.82	751	1	0.09	23	0.14	2	221	0.31	206	49
40	GG0296	1300	0.2	3.67	153	1017	0.4	5	0.21	1.0	23	82	38	631	31.46	1.19	19	14	1.72	1082	10	0.02	65	0.08	13	12	0.11	181	193
41	GG0300 rx	30	0.2	3.60	6	339	0.5	5	4.98	0.9	63	31	113	51	6.93	1.65	11	5	2.71	877	1	0.06	38	0.07	2	91	0.05	234	65

NORANDA DELTA LABORATORY

Geochemical Analysis

Project Name & No.: SOUP - 45550

Geol.: G.G.

Date received: AUG. 26

LAB CODE: 9408-065

Material: 5 Rx

Sheet: 1 of 1

Date completed: AUG. 31

Remarks: * Sample screened @ -35 MESH (0.5 mm)

□ Organic, Δ Humus, S Sulfide

Au - 10.0 g sample digested with aqua-regia and determined by A.A. (D.L. 5 PPB)

ICP - 0.2 g sample digested with 3 ml HClO₄/HNO₃ (4:1) at 203 °C for 4 hours diluted to 10 ml with water. Leeman PS3000 ICP determined elemental contents.

N.B. The major oxide elements and Ba, Be, Ce, La, Li, Ga are rarely dissolved completely from geological materials with this acid dissolution method.

T. No.	SAMPLE No.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cu	Fe	K	La	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Sr	Ti	V	Zn	
		ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm
45	GG0309	rx	80	1.6	4.45	2	338	0.4	5	3.26	0.6	62	45	26	500	6.78	0.80	11	10	1.74	745	2	0.15	20	0.13	6	225	0.46	222	58
46	GG0310		20	0.8	4.09	26	49	0.4	5	4.65	0.6	68	28	55	131	9.05	0.14	12	11	1.88	821	1	0.07	23	0.09	7	201	0.54	284	57
47	GG0313		800	2.0	4.74	66	935	0.6	5	5.35	0.5	68	36	39	1180	6.00	1.81	11	16	2.30	806	6	0.06	28	0.10	4	91	0.16	221	75
51	GG0314		40	1.6	4.71	25	58	0.4	5	5.99	0.2	76	63	31	497	10.37	0.20	10	5	0.38	951	3	0.10	16	0.12	4	277	0.55	269	57
52	GG0315	rx	10	0.8	5.26	23	22	0.4	5	7.16	0.3	77	45	56	270	7.90	0.09	8	8	1.32	754	3	0.07	38	0.09	4	386	0.47	240	46

02/04 (99) GB
 record 1982

NUMBER	LOCATIONX	LOCATIONY	LOCATIONZ	LOCATIONW	DAY	EXPOSURE	UNIT	COLOR	TEXTURE	HORNfels	PROPHYLIC	ARGILLIC	SERICITIC	POTASSIC	SILICA	CARBONATE	CHLORITE	EPIDOTE	PYRITE	PYRHO	CPY	BLAH	LITHO	SAMPLETYP	COMMENTS	
000150	880800	8262221	0	0	07/23/94	OUTCROP	DIOR	DKGREEN	mg	none	mod	none	none	none	none	mod	weak	mod	none	none	none	strong	MELANOCRAT	GRAB	cc vein/traces, Epid on trace & plg pheno. Minor malachite	
000157	880886	8262287	0	0	07/23/94	FLOAT		WHITE	mg	none	none	none	none	none	none	none	none	none	none	none	none	none		GRAB	Qz-chlor-cc +A. sgd vein material	
000158	881011	8262206	0	0	07/23/94	SUBOTC		WHITE	fg	none	none	none	none	none	none	none	none	none	none	none	2	none	ASHTF	GRAB	Qz-chlor & cpy, malachite, hornbl? in qz in druffs	
000163	881127	8262107	0	0	07/23/94	FLOAT		RED	fg													verystrong		GRAB	v. rusty, limonitic -sp-wash stringers & mg dissemination	
000185	881151	8262091	0	0	07/23/94	OUTCROP	DIOR	GREY-GREEN	cg																GRAB	v. chlor, main frac with cc
000186	881027	8261865	0	0	07/24/94	SUBOTC	AUGPORPH	RED	fg	none	none	none	none	none	none	none	none	none	none	none	none	verystrong		GRAB	goethite, limonitic sp-wash if scuffing ridge	
000175	881035	8261846	0	0	07/24/94	TALUS	AUGPORPH	GREY-GREEN	porphyritic	weak	none	none	none	none	none	none	none	mod	2	none	none	mod	FLOW	GRAB	fg, cc, chlor py on trace & replacing aug pheno	
000178	880998	8262462	0	0	07/28/94	TALUS		WHITE		none	none	none	none	none	none	none	none	none	none	none	none	none		GRAB	qtz, cc, chlor vein in talu	
000181	880548	8262560	0	0	07/28/94	TALUS	AUGPORPH	MIDGREEN	mg	none	none	none	none	none	none	none	weak	mod	5	none	none	weak	FLOW	GRAB	Chlor malachite, fg, des py, Epid trace & plg. Qz-spld vein	
000183	880568	8262478	0	0	11/28/94	OUTCROP	AUGPORPH	LEMONITIC	porphyritic	none	none	none	none	none	none	none	none	none	4	none	none	none	FLOW	GRAB	<1% fg, mg, des & ff py. Bleached, no sp-w	
000180	880584	8262443	0	0	1/2/94	OUTCROP	AUGPORPH																		CRIP	0.4m chip across limonitic laminated py.
000183	881175	8261870	0	0	07/29/94	SUBOTC	AUGPORPH	GREY-GREEN	porphyritic	none	none	none	none	none	none	mod	strong	weak	1	none	1	strong		GRAB	mag, cc, chlor, qz ff	
000184	881212	8261845	0	0	07/29/94	SUBOTC	AUGPORPH	GREY-GREEN	porphyritic	none	none	none	none	none	none	mod	strong	weak	1	none	none	strong	FLWBX	GRAB	chlor, cc, mag, lesser qz ff up to 8Doms. Strkes 350	
000187	881285	8261828	0	0	07/29/94	SUBOTC		WHITE	none	none	none	none	none	none	none	weak	weak	none	none	none	1	none		GRAB	qz vn with minor cc, chlor, mal, cpy	
000198	881291	8261825	0	0	07/29/94	OUTCROP										mod	strong	none	none	none	none	strong		GRAB	heavy bedded calcareous shear at 1/8	
000201	881404	8261858	0	0	07/29/94	SUBOTC	AUGPORPH	WHITE													1	none	2	none	GRAB	qtz(cc) vein & malachite 135/50
000204	881292	8261895	0	0	07/29/94	TALUS	PYROXENITE	DKGREEN	cg															GRAB	mag on trace	
000205	881292	8261895	0	0	07/29/94	TALUS	PYROXENITE	DKGREEN	cg													1	verystrong		GRAB	mag, cc, qz in veins, ff. Mala/cpy locally
000207	880917	8262022	0	0	07/29/94	FLOAT		LEMONITIC																GRAB	v. limonitic, mag, qz rich rock	
000208	880924	8262003	0	0	07/29/94	SUBOTC	AUGPORPH	LEMONITIC	mg	none	none	none	none	none	none	none	none	none	3	none	none	none	FLOW	GRAB	Bleached, fg, des & ff py	
000208	880918	8261868	0	0	07/29/94	FLOAT																		GRAB	qz, mag, chlor, mala in aug por	
000212	880888	8261826	0	0	07/29/94	OUTCROP		WHITE																GRAB	qz with mala @ 200/80	
000214	880553	8261890	0	0	07/29/94	TALUS		LEMONITIC	fg															GRAB	v. limonitic/porphyritic chunk (10cm) with break test & some mag	
000218	880807	8262023	0	0	07/29/94	TALUS	ANDESITE	DKGREEN	fg	none	none	none	none	none	none	none	strong	none	none	none	<1	strong		GRAB	v. chlor, mag rich rx with qz, cc (minimal)	
000218	880819	8262000	0	0	07/29/94	OUTCROP	DIOR	MIDGREEN	fg	mod	none	none	none	none	weak	none	none	none	2	none	none	weak		GRAB	rusty blocky weathering, fg, des py/fo	
000220	880834	8261845	0	0	07/30/94	OUTCROP	AUGPORPH	LTGREEN	foliated	none	none	none	none	none	mod	mod	mod	mod	none	none	none	mod		GRAB	well sheared @ 355/80	
000221	880858	8261838	0	0	07/30/94	OUTCROP	DIOR	GREY-GREEN	mg	none	none	none	none	none	none	none	none	weak	fr	none	none	mod		GRAB	massive texture, blocky frac	
000223	880835	8261891	0	0	07/30/94	OUTCROP	DIOR	GREY-GREEN	mg	none	none	none	none	none	none	none	none	none	2	none	none	none		GRAB	qz-limonite vein (10cm). Weathered py. D36/55	
000224	880808	8261822	0	0	07/30/94	OUTCROP	GABBROID	GREY-GREEN	porphyritic	none	none	none	none	none	weak	none	none	none	3	none	none	none		GRAB	rusty frac, surf. Aug/94 field test due to prox to contact	
000228	880902	8262112	0	0	07/30/94	OUTCROP	AUGPORPH	LTGREEN	mod/acc	mod	none	none	none	none	none	none	none	weak	2	none	none	none	FLOW	GRAB	vly des & ff py, Aug/94 phytic. Same as LEO228	
000229	880916	8262110	0	0	07/30/94	OUTCROP		LEMONITIC	bedded	mod	none	none	none	none	none	none	none	none	none	none	none	none	FLWBX	COMPOB	limonitic, chert, Bz, Q, Pyroxene, R, Q, 154/22	

NUMBER	LOCATIONX	LOCATIONY	LOCATIONZ	LOCATIONG	DAY	EXPOSURE	UNIT	COLOR	TEXTURE	HORNFBLS	PROPYLITC	ARGILLIC	SERCTIC	POTASSIC	SILICA	CARBONATE	CHLORITE	EPIDOTE	PYRITE	PYRROH	CPY	MAGN	LITHO	SAMPLETYP	COMMENTS	
000231	000567	0202101	0	0	07/30/94	OUTCROP	SKARN	LIMONITIC	ng	none	none	none	none	none	none	none	none	none	none	none	none	verystrong		CHP	1.0m chip. Same as 0207(TECK7). Bedding not evident. looks struc controlled	
000232	000563	0202102	0	0	07/30/94	OUTCROP	SKARN	LIMONITIC														verystrong		GRAB	massive magn oc	
000236	000723	0202047	0	0	08/11/94	OUTCROP	ANDESITE	MIDGREEN	tg	mod	none	none	none	none	none	none	none	weak	2	none	none	weak	FLOW	GRAB	fs supfield phytic fls. Rusty trace	
000237	000801	0202067	0	0	08/11/94	OUTCROP	MONZ	MIDGREY	porphyritic	none	none	none	none	none	none	none	mod	none	1	none	none	none		GRAB	Random g-chlor veins. Chlor malice. Pyrox, dte, ff	
000238	000870	0202108	0	0	08/11/94	OUTCROP	AUGPORPH	DKGREEN	porphyritic	none	none	none	none	none	none	none	weak	weak	1	1	none	mod	FLOW	GRAB	Rusty trace zone in massive suppor	
000241	000900	0202030	0	0	08/11/94	OUTCROP	AUGPORPH	DKGREEN	porphyritic	none	none	none	none	none	none	none	none	none	none	none	none	strong	FLOW	GRAB	V. rusty with trace @ 31058 with rem. py/magn	
000251	001233	0201875	0	0	08/14/94	OUTCROP	AUGPORPH	MIDGREEN	porphyritic	none	none	none	none	none	none	none	weak	mod	3	none	none	mod		GRAB	Rusty, py zone in ep	
000252	001213	0201823	0	0	08/14/94	OUTCROP	AUGPORPH	MIDGREEN	porphyritic	none	mod	none	none	none	none	mod	mod	mod	none	none	none	none		GRAB	Chlor veined up with chlor/magn, py, malach. Same as BDA 307	
000253	001222	0201780	0	0	08/14/94	OUTCROP	AUGPORPH	MIDGREEN	porphyritic	none	weak	none	none	none	none	mod	mod	mod	none	none	none	none		GRAB	Area of line in chlor/magn, py, malach. Same as BDA 307	
000255	001225	0201778	0	0	08/14/94	OUTCROP	AUGPORPH	MIDGREEN	porphyritic	none	none	none	none	none	none	none	none	none	none	none	none	none	FLTX	GRAB	Chlor, chlor, spy vein(hybrid zone)	
000256	001200	0201788	0	0	08/14/94	OUTCROP	AUGPORPH	LIMONITIC	porphyritic	none	none	none	none	none	none	none	none	tr	none	none	none	none		GRAB	Hybrid zone between diorite/suppor	
000258	001317	0201817	0	0	08/14/94	OUTCROP	PYROXENITE	DKGREEN	sg	none	none	none	none	none	none	none	mod	none	none	none	none	strong		GRAB	Dyke in g-dior with magn, malach, azur in rusty trace zone. Same as Tech 420 421	
000261	001300	0201792	0	0	08/14/94	OUTCROP	DIOR	DKGREEN	sg	none	none	none	none	none	none	none	none	none	none	none	none	strong		GRAB	Outcrop magn, py material in trace. Malach on selvage Pyrox host	
000262	001304	0201778	0	0	08/14/94	FLOAT		LIMONITIC	ng	none	none	none	none	none	none	none	none	none	none	none	none	strong		GRAB	Magn, py material from shear	
000263	001300	0201770	0	0	08/14/94	OUTCROP	DIOR	LTGREY	ng	none	none	none	none	none	none	none	none	weak	none	none	none	mod		GRAB	Bleached, fractured with malach/azur	
000264	001402	0201748	0	0	08/14/94	OUTCROP	PYROXENITE	DKGREEN	sheared	none	none	none	none	none	none	mod	strong	weak	none	none	none	strong		COMPGRAB	3-4m wide sheared pyrox body @ 183	
000265	001423	0201718	0	0	08/14/94	OUTCROP	DIOR	DKGREEN	ng	none	none	none	none	none	none	mod	mod	weak	none	none	none	strong		GRAB	In frac. g2-magn-malachite	
000268	001380	0201870	0	0	08/14/94	OUTCROP	DIOR	MIDGREY	ng	none	none	none	none	none	none	mod	weak	weak	none	none	none	none		GRAB	Malach on frac. surf. Calcite on trace & chlor	
000269	001306	0201837	0	0	08/14/94	OUTCROP	DIOR	GREY-GREEN	ng	none	none	none	none	none	none	none	none	weak	none	none	none	weak		GRAB	Gz with magn, malach/azur in 0.2m vein in frac	
000273	001187	0201757	0	0	08/14/94	OUTCROP	DIOR	GREY-GREEN	ng	none	none	none	none	none	none	none	none	none	none	none	none	mod		CHP	0.2m wide buff g2 vein	
000274	001189	0201742	0	0	08/14/94	OUTCROP	DIOR	GREY-GREEN	ng	none	none	none	none	none	none	none	none	none	1	1	1	mod		GRAB	0.1m wide g2, mal, chlor, py, py vein in small diorite	
000277	001230	0201867	0	0	08/14/94	OUTCROP	ANDESITE	MIDGREEN	ng	none	none	none	none	none	none	weak	weak	weak	1	none	tr	mod		GRAB	Gz, py, magn, vein & ff in andes	
000278	001204	0201700	0	0	08/14/94	OUTCROP	DIOR	GREY-GREEN	ng	none	none	none	none	none	none	weak	weak	none	none	none	none	strong		GRAB	Malach/azur in shear zone	
000279	001257	0201719	0	0	08/14/94	OUTCROP	DIOR	GREY-GREEN	ng	none	none	none	none	none	none	none	none	none	none	none	none	mod		GRAB	Malach ff on diabase dyke cutting diorite	
000280	001281	0201721	0	0	08/14/94	OUTCROP	DIOR	GREY-GREEN	ng	none	none	none	none	none	none	mod	mod	weak	1	none	none	mod		CHP	2.0m chip across magn, py, malach	
000281	001283	0201721	0	0	08/14/94	OUTCROP	DIOR	GREY-GREEN	ng	none	none	none	none	none	none	none	none	none	none	none	none	mod		CHP	As above. Magn/malach/azur/magn/azur	
000282	001270	0201720	0	0	08/14/94	OUTCROP	DIOR	GREY-GREEN	ng	none	none	none	none	none	none	weak	none	weak	none	none	none	mod		CHP	0.5m chip across frac with malach/magn	
000283	001316	0201722	0	0	08/14/94	OUTCROP	DIOR	GREY-GREEN	sg	none	none	none	none	none	none	weak	weak	weak	1	tr	none	strong	1	EUCOCROT	GRAB	Malach on trace with local g2, chlor, epid. Interstitial magn
000286	001402	0201550	0	0	08/14/94	OUTCROP	DIOR	GREY-GREEN	ng	none	none	none	none	none	none	none	none	none	none	none	tr	none		GRAB	Malach, g2, py in frac in dior. Tech @ 447	
000287	001475	0201582	0	0	08/14/94	OUTCROP	DIOR	GREY-GREEN	ng	none	none	none	none	none	none	weak	mod	none	1	none	1	none		CHP	Chlorophyll/azur vein with magn coating. 0.1m wide	
000290	001475	0201582	0	0	08/14/94	OUTCROP	DIOR	DKGREEN	ng	none	none	none	none	none	none	weak	mod	3	1	1	mod		GRAB	Sheared, frac zone with malach/azur. Magn, py, malach, azur in trace		

NUMBER	LOCATIONX	LOCATIONY	LOCATIONZ	LOCATIONM	DAY	EXPOSURE	UNIT	COLOR	TEXTURE	HORNBLD	PROPYLITE	ARGILLIC	SERICITIC	POTASSIC	SILICA	CARBONATE	CHLORITE	EPIDOTE	PYRITE	PYRRHO	CPY	MAGN	LITHO	SAMPLETYP	COMMENTS
QG0291	881479	6261819	0	0	08/14/84	OUTCROP	DIOR	GREY-GREEN	mg	none	none	none	none	none	none	none	none	none	1	none	1	weak		CHP	0.1m chip across gphc/antifer/mag vein
QG0292	881524	6261581	0	0	08/14/84	FLOAT	MONZ	LTGREY	mg	none	none	none	none	none	none	none	none	none	2	none	1	weak		GRAB	Mt, epid, py, qtz? Minor ox, epid, chlor on fracs
QG0295	881587	6261504	0	0	08/14/84	OUTCROP	DIOR	MIDGREY	mg	none	none	none	none	none	weak	weak	mod	2	1	1	strong		COMPGRAB	Mt, epid, ss, py, qtz, mag, magn in 1-2m wide sheared, frac rusty zone (5m long)	
QG0296	881588	6261503	0	0	08/14/84	FLOAT									mod	none	strong	none	none	none	none	verystrong		GRAB	Qtz, mag (some massive, qtz) & chlor vein in float
QG0300	881481	6261272	0	0	08/14/84	FLOAT	AUGPORPH	ORANGE	foliated	none	none	none	none	none	mod	weak	none	none	none	none	mod		GRAB	Cu, antifer, isolated ell. suggest	
QG0303	881490	6261103	0	0	08/14/84	OUTCROP	GABBROID	DKGREEN	qz	none	none	none	none	none	weak	weak	weak	tr	none	none	mod		GRAB	Local rusty zones with magnetite on fracs & mag resin clots on some fracs	
QG0310	881568	6261087	0	0	08/14/84	OUTCROP	GABBROID	DKGREEN	mg	none	none	none	none	none	mod	mod	mod	none	none	none	mod		GRAB	Mg-qz gabbroid. Near intrusive contact	
QG0313	881613	6261074	0	0	08/18/84	OUTCROP	AUGPORPH	DKGREEN	mg	none	none	none	none	none	mod	strong	weak	none	none	none	mod		GRAB	Shear on FW of monz dyke	
QG0314	881658	6261085	0	0	08/18/84	FLOAT	AUGPORPH	GREY-GREEN	mg	none	none	none	none	none	none	none	none	weak	5	none	none	strong		GRAB	Linearitic. In talus
QG0315	881668	6261050	0	0	08/18/84	OUTCROP	GABBROID	GREY-GREEN	mg	none	none	none	none	none	weak	mod	mod	none	none	none	mod		GRAB	Mt, qz, epid, horn altered gabbroid, 2m wide & HW to shear	
LE0184	880792	6262078	0	0	07/25/84	OUTCROP	AUGPORPH	ORANGE		none	none	none	none	none	none	none	mod	none	none	none	none	verystrong	GOSSANOUS	CHP	2m chip, Qtz streak veins
LE0185	880792	6262078	0	0	07/25/84	OUTCROP	AUGPORPH	DKGREEN	porphyritic	none	weak	none	none	none	none	mod	weak	strong	tr	none	none	mod	FLOW	CHP	1m chip, Mt/Az on fr. HW of 184, coarse fr. de Py with Mt/Az, Qtz, veins
LE0187	880822	6262051	0	0	07/25/84	OUTCROP	AUGPORPH	ORANGE		none	none	none	none	none	none	none	mod	none	none	none	none	verystrong	GOSSANOUS	CHP	1m chip, similar to 184, ch fr
LE0188	880841	6262051	0	0	07/25/84	OUTCROP	AUGPORPH	GREY-GREEN	porphyritic	none	none	none	none	none	none	none	weak	mod	tr	none	none	none	FLOW	CHP	1m chip, abundant Pt phenos rusty WS/trace Py fr. Qtz fr
LE0194	880845	6262172	0	0	07/25/84	OUTCROP	DIOR	ORANGE		none	none	none	none	none	none	none	strong	none	none	none	none	none	GOSSANOUS	GRAB	narrow band (less than 0.5m) in an intrusive bt(7), basic P
LE0195	880831	6262172	0	0	07/25/84	TALUS	DIOR	MIDGREEN	porphyritic	none	mod	none	none	none	none	weak	mod	mod	tr	none	none	mod		GRAB	ltz bt/Mt/Az fr. local str mag, none mod Py, carb fr. Py fr
LE0196	880778	6262027	0	0	07/25/84	OUTCROP	AUGPORPH	ORANGE		none	none	none	none	none	none	none	mod	none	none	none	none	verystrong	GOSSANOUS	CHP	1m chip, similar to 184, perov. mag, replete mag
LE0197	880788	6262068	0	0	07/25/84	OUTCROP	AUGPORPH	ORANGE		none	none	none	none	none	none	none	mod	none	none	none	none	strong	GOSSANOUS	CHP	1m chip, similar to 184
LE0211	880708	6262437	0	0	07/24/84	OUTCROP	AUGPORPH	GREY-GREEN	porphyritic	none	weak	none	none	none	none	none	weak	mod	tr	none	none	weak	FLOW	GRAB	local rusty WS, none Fe less Pt than previous local de Py
LE0222	880783	6262083	0	0	07/24/84	TALUS	AUGPORPH	ORANGE		none	none	none	none	none	none	none	mod	none	none	none	mod		GOSSANOUS	FLOAT	no visible Qtz, in talus field of AUG PORPH, heavy Mn on surface
LE0226	880842	6262140	0	0	07/25/84	OUTCROP	AUGPORPH	GREY-GREEN	porphyritic	none	none	none	none	none	none	none	weak	8	none	none	weak		FLOW	GRAB	looks efflored but its not, mprff Py, sp, perov. rusty WS/trace
LE0229	880954	6262104	0	0	07/25/84	OUTCROP	ANDESITE	GREY-GREEN	qz	none	none	none	none	none	none	none	strong	tr	none	none	none		FLOW	GRAB	rusty WS, Py fr. HW of 227 a few Pt phenos
LE0229	880815	6262031	0	0	07/25/84	OUTCROP	DIOR	LTGREEN	mg	none	none	none	none	none	none	none	mod	tr	none	none	weak		GRAB	local rusty WS, eqz/garnet, rusty fr	
LE0230	880810	6262044	0	0	07/25/84	TALUS	AUGPORPH	ORANGE		none	none	none	none	none	none	none	none	none	none	none	none	verystrong	GOSSANOUS	FLOAT	massive magnetite, remnant rock frags are diaphanite
LE0237	880897	6262530	0	0	07/27/84	TALUS	AUGPORPH	MIDGREY	porphyritic	none	none	none	none	none	none	weak	weak	1	none	none	weak		FLOW	FLOAT	very rusty WS, Mt fr, qtz, py, as fr, local str, magnetite
LE0238	880887	6262510	0	0	07/27/84	OUTCROP	AUGPORPH	MIDGREY	porphyritic	none	none	none	none	none	weak	none	weak	3	none	none	mod		FLWBX	GRAB	rusty WS, fr, py local fr, local efflorescence, sp, perov.
LE0245	880874	6262399	0	0	07/27/84	OUTCROP	AUGPORPH	DKGREEN	qz	none	strong	none	none	none	strong	strong	none	none	none	none	strong		FLOW	GRAB	sheared, chq in all directions
LE0250	880807	6262383	0	0	07/27/84	OUTCROP	AUGPORPH	ORANGE		none	none	none	none	none	none	none	none	tr	none	none	none		GRAB	Qtz veins in a strongly chloritic shear	
LE0254	880537	6262368	0	0	07/27/84	OUTCROP	AUGPORPH	DKGREEN	bedded	none	none	none	none	none	strong	strong	none	none	none	strong		FLWB7	GRAB	shear, similar to 245, surrounding Qtz is flow to	
LE0258	880430	6262227	0	0	07/27/84	OUTCROP	AUGPORPH	ORANGE	massive	none	none	none	none	none	none	none	none	none	25	none	none	verystrong		GRAB	qz Py in "lobe" and as fr
LE0259	880815	6262450	0	0	07/28/84	OUTCROP	AUGPORPH	ORANGE		none	none	none	none	none	none	none	none	none	none	none	strong		GRAB	with the frags, then 12 cm w. of Mt, also bordering up no. 184. Qtz, magnetite	

NUMBER	LOCATIONX	LOCATIONY	LOCATIONZ	LOCATIONW	DAY	EXPOSURE	UNIT	COLOR	TEXTURE	HORNFBLS	PROPYLITC	ARGILUC	SERICITIC	POTASSIC	BLUCA	CARBONATE	CHLORITE	EPIDOTE	PYRITE	PYRRHO	CPY	BIAGN	LITHO	SAMPLETYP	COMMENTS
LE0290	080734	6262467	0	0	07/29/94	OUTCROP	AUGPORPH	MIDGREEN	porphyritic	none	none	none	none	none	none	none	weak	mod	1	none	none	mod	FLOW	GRAB	very rusty, local Mc fl, mgd# Py
LE0291	080492	6262550	0	0	07/29/94	OUTCROP	AUGPORPH	GREY-GREEN	banded	none	none	none	none	none	none	none	weak	mod	<1	none	none	mod	FLWBX	GRAB	local rusty Ws on ridge top, fgd Py, perov# ep
LE0295	080345	6262546	0	0	07/29/94	OUTCROP	AUGPORPH	WHITE	vfg	none	none	none	weak	none	none	none	none	none	tr	none	none	none		GRAB	Qtz vein, sericite fl, fgd Py "blake", orange WS, well frac, trend 250 on steep
LE0296	080369	6262522	0	0	07/29/94	OUTCROP	ANDESITE	DKGREY	vfg	none	none	none	none	none	none	none	weak	weak	tr	none	none	mod	TUFF	GRAB	fgd Py, perv ch, perov# ep
LE0298	080314	6262480	0	0	07/29/94	OUTCROP	ANDESITE	DKGREY	vfg	none	none	none	none	none	none	none	weak	weak	tr	none	none	mod	XTLTF	GRAB	Fe(20%) all buff, Fe broken, groundmass is sericitic Fe to ep, fgd Py
LE0270	080302	6262496	0	0	07/29/94	OUTCROP	ANDESITE	LTGREY	vfg	none	none	none	none	none	mod	none	weak	none	2	none	none	none	TUFF	GRAB	rusty Ws (fly), local fgd Py, allosous, interbedded volcanics/diabase
LE0273	080241	6262450	0	0	07/29/94	TALUS	AUGPORPH	ORANGE		none	none	none	none	none	none	none	none	none	none	none	none	none	GOSSANOUS	FLOAT	remnant pieces of Qtz veins? but mostly sericitic so orig. rock not determined
LE0278	081011	6261919	0	0	07/31/94	TALUS	AUGPORPH	LTGREEN	porphyritic	none	none	none	none	none	none	none	weak	mod	none	none	none	none	FLOW	FLOAT	rusty traces, well frac, orange WS where fresh rock is in the ign. color
LE0277	081000	6261914	0	0	07/31/94	OUTCROP	AUGPORPH	MIDGREEN	banded	none	none	none	none	none	none	weak	mod	weak	tr	none	none	none	FLWBX	GRAB	shear (10cm) in good flow loc, carb fl, fgd Py, 1cm grey carb veins
LE0278	080902	6261901	0	0	07/31/94	OUTCROP	AUGPORPH	LTGREEN	banded	none	none	weak	none	none	none	none	none	weak	1	none	none	none	FLWBX	GRAB	orange, local ep site in vugs, bleached, fgd Py, local melite to ch
LE0290	080900	6261894	0	0	07/31/94	OUTCROP	AUGPORPH	GREY-GREEN	fg	none	none	none	none	none	none	mod	none	none	none	none	none	none		GRAB	shaded zone 50cm true Ws, 5% <0.5mm bl flakes, perv carb, granular text.
LE0281	080902	6261904	0	0	07/31/94	OUTCROP	DKR	MIDGRY	mg	none	none	none	none	none	none	none	weak	none	4	none	none	none		GRAB	fgd Py, melite to ch, v. rusty WS
LE0284	080978	6261880	0	0	07/31/94	OUTCROP	DIOR	LIMONITIC	none	none	none	none	none	none	none	weak	strong	none	1	none	none	none		GRAB	mostly sericitic, 6 cm width, central Qtz vein with v. chlor margins, small ch
LE0286	081034	6261883	0	0	07/31/94	OUTCROP	AUGPORPH	LTGREEN	porphyritic	none	none	weak	weak	none	none	none	none	strong	1	none	none	none	FLOW	GRAB	upper contact of Di. mgd Py, Pzr phanos to 7mm, rock is crumbly
LE0288	081068	6261855	0	0	07/31/94	OUTCROP	DIOR	WHITE	fg	none	none	none	none	none	none	mod	weak	none	none	none	none	none		GRAB	vein(5cm), Qtz-carb-ch, carb is a buff colour and is patchy
LE0291	081017	6261866	0	0	07/31/94	OUTCROP	DIOR	WHITE	fg	none	none	none	none	none	none	mod	weak	none	none	none	none	none		GRAB	vein, Qtz-carb-ch, similar to 288, rusty WS, 12 cm width in a ch shear
LE0295	080974	6261829	0	0	07/31/94	OUTCROP	DIOR	DKGREY	mg	none	weak	none	none	none	none	weak	weak	weak	none	none	none	strong	MELANOCRAT	GRAB	local rare fgd Py, melite to ch, perv ep, carb fl, rare apatite Mc
LE0306	080799	6262017	0	0	07/31/94	OUTCROP	ANDESITE	DKGREEN	fg	none	none	none	none	none	none	none	strong	none	none	none	none	strong	TUFF	GRAB	locally has a fault, local v. air magn, rusty WS
LE0307	080720	6262024	0	0	07/31/94	OUTCROP	AUGPORPH	GREY-GREEN	porphyritic	none	none	none	none	none	none	none	none	mod	5	none	none	mod	FLOW	GRAB	mgd Py, Aug porph Fe phyr, # Py, Fe to ep, ep fl
LE0308	080892	6261859	0	0	07/31/94	OUTCROP	ANDESITE	DKGREY	porphyritic	none	none	none	none	none	none	none	none	tr	none	none	strong	TUFF	GRAB	rare mgd py, # Mc, Fe silts (1-2mm)	
LE0312	080842	6261860	0	0	07/31/94	OUTCROP	ANDESITE	MIDGREEN	porphyritic	none	none	none	none	none	none	none	weak	weak	none	none	none	verystrong	XTLTF	GRAB	local banded massive magn, v. rusty WS, perv ap(Ch), Fe silts, trend 125, 7m w.1
LE0318	080906	6262024	0	0	07/31/94	OUTCROP	AUGPORPH	LTGREEN	porphyritic	none	none	none	none	none	mod	none	none	mod	2	none	none	none	FLOW	GRAB	rusty WS, perv ep, fl, ep, mgd Py, trend 180, aug to 3 mm
LE0326	080398	6262677	0	0	08/29/94	OUTCROP	ANDESITE	DKGREEN	fg	none	none	none	none	none	mod	strong	none	none	none	none	none	mod		GRAB	shear, Qtz-carb "veins" in shear direction, Mc, ch, fl, carb fl
LE0329	080341	6262690	0	0	08/29/94	OUTCROP	DIOR	MIDGREEN	fg	none	none	none	none	none	none	none	weak	3	none	none	none		GRAB	rusty WS, ep fl, local 5% dff Py	
LE0332	080791	6262995	0	0	08/29/94	OUTCROP	ANDESITE	LTGREY	fg	none	none	none	none	none	none	none	none	weak	15	none	none	none		GRAB	
LE0337	080701	6262719	0	0	08/29/94	SUBOIC	SKARN	LIMONITIC	none	none	none	none	none	none	none	none	none	strong	none	none	none	verystrong		FLOAT	no silts just rubble, some of the mag shows Ls silts (trpy), some v. air perv ep
LE0345	080104	6262880	0	0	08/29/94	SUBOIC	SKARN	LIMONITIC	none	none	none	none	none	none	none	none	none	strong	none	none	none	verystrong		FLOAT	same as LE0317, Ls to toward east end of zone
LE0350	080701	6261951	0	0	08/29/94	OUTCROP	SKARN	LIMONITIC	massive	none	none	none	none	none	none	none	none	none	none	none	none	verystrong		GRAB	massive magn
LE0351	080902	6261877	0	0	08/29/94	OUTCROP	SKARN	LIMONITIC	banded	none	none	none	none	none	none	none	none	none	none	none	none	verystrong		GRAB	magn in fuge and bands
LE0354	080971	6261920	0	0	08/29/94	OUTCROP	SKARN	LIMONITIC	massive	none	none	none	none	none	none	none	none	none	none	none	none	verystrong		GRAB	
LE0355	080971	6261922	0	0	08/29/94	OUTCROP	ANDESITE	DKGREEN	fg	none	none	none	none	none	none	none	weak	mod	none	none	none	strong		GRAB	perov, per, v. air magn

APPENDIX III
STATEMENT OF COSTS

NORANDA EXPLORATION COMPANY, LIMITED
STATEMENT OF COSTS

PROJECT: SOUP

DATE: DECEMBER, 1994

TYPE OF REPORT: GEOLOGICAL/GEOCHEMICAL/GEOPHYSICAL

- a) Wages:
No. of Mandays : 5 mandays
Rate per Manday: \$226.00/manday
Dates From : August 16 to August 27, 1994
Total Costs : 5 x \$226.00 \$1,130.00
- b) Food and Accommodations:
No. of Mandays : 5 mandays
Rate Per Manday: \$24.80/manday
Dates From : August 16 to August 27, 1994
Total Costs : 5 x \$24.80 \$124.00
- c) Transportation:
No. of Mandays : 5 mandays
Rate Per Manday: \$39.00/manday
Dates From : August 16 to August 27, 1994
Total Costs : 5 x \$39.00 \$195.00
- d) Camp Supplies: \$130.00

e)	Analysis: 25 Rocks	\$375.00
f)	Cost of preparation of Report:	
	Author : 1 manday @ \$260.00	\$260.00
	Drafting: 1 manday @ \$200.00	\$200.00
	Typing : 1 manday @ \$180.00	\$180.00
g)	Other:	
	Contractor: Pacific Western Helicopters Ltd.	
	1.3 hours @ \$702.00/hour (including fuel)	\$912.60
	Contractor: Peter Walcott and Associates Ltd.	
	6.45 line km of magnetomer surveying	\$1,003.21
	TOTAL COST	\$4,509.81
h)	Unit Costs for Geology:	
	No. of Mandays: 3.5 mandays	
	No. of Units : 3.5 mandays	
	Unit Costs : \$573.32/manday	
	Total Cost : 3.5 mandays x \$573.32/manday	\$2,006.62
i)	Unit Costs for Geochemistry:	
	No of Mandays: 1.5 mandays	
	No. of Units : 25 samples	
	Unit Costs : \$49.40/sample	
	Total Cost : 25 x \$49.40	\$1,234.98
j)	Unit Costs for Magnetic Survey:	
	No. of Mandays: 2 mandays	
	No. of Units : 6.45 line km	
	Unit Costs : \$196.62/line km	
	Total Cost : 6.45 line km x \$196.62/line km	\$1,268.21
	GRAND TOTAL	\$4,509.81

NORANDA EXPLORATION COMPANY, LIMITED
(CORDILLERA DIVISION)

DETAILS OF ANALYSES COSTS

PROJECT: SOUP

ELEMENT	NO. OF DETERMINATIONS	COST PER DETERMINATION	TOTAL COSTS
ICP (30 Element) + Geochem Au	25 Rocks	\$15.00	\$ 375.00

APPENDIX IV
STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, D. Graham Gill of the City of Vancouver, Province of British Columbia, hereby certify that:

I am a geologist residing at 5442 - 7th Avenue, Delta, B.C.

I have graduated from the University of British Columbia in 1983 with a BSc in geology.

I have worked in mineral exploration since 1979.

I have been a temporary employee with Noranda Exploration Company, Limited since May, 1983 and a permanent employee since November 1987.

I am a member in good standing of the Professional Engineers & Geoscientist of British Columbia.



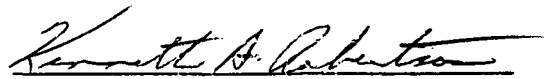


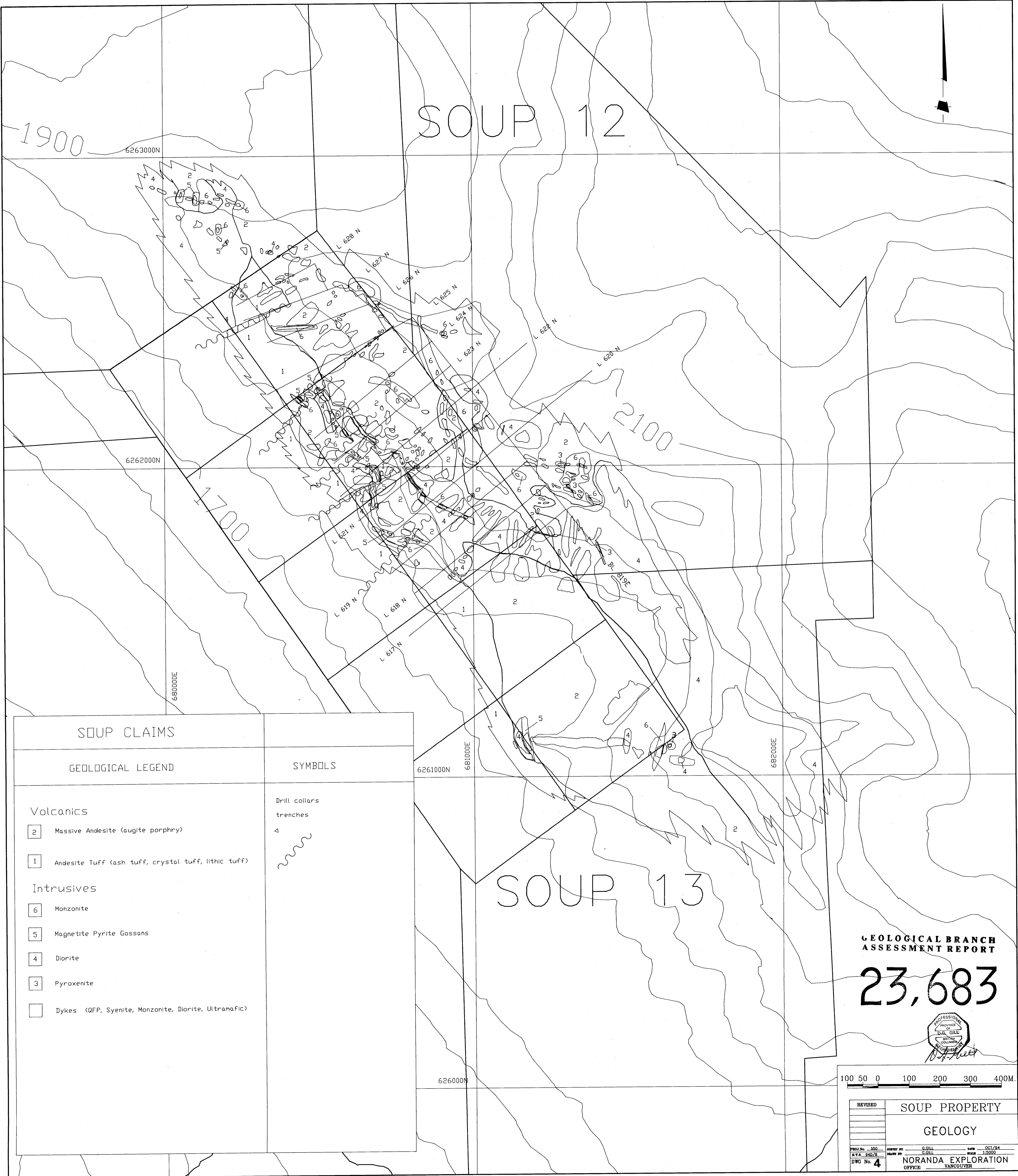
D. Graham Gill, P. Geo.

STATEMENT OF QUALIFICATIONS

I, Kenneth A. Robertson, of the City of Delta, Province of British Columbia, hereby certify that:

1. I am a Professional Geophysicist residing at 7540 Garfield Drive, Delta, B.C. V4C 7L4.
2. I have graduated from the University of Toronto in 1977 with an H.B.Sc. in Geology and Physics.
3. I have worked in mineral exploration since 1975.
4. I have been a permanent employee of Noranda Exploration Company, Limited since February 1984.
5. I am a member in good standing of the Professional Engineers and Geoscientists of British Columbia.

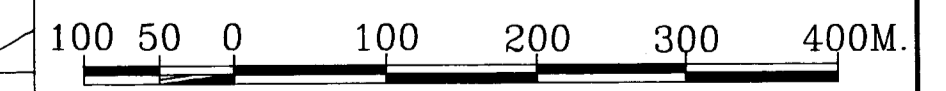
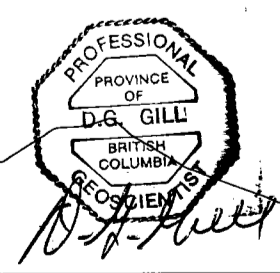

Kenneth A. Robertson, P. Geo.



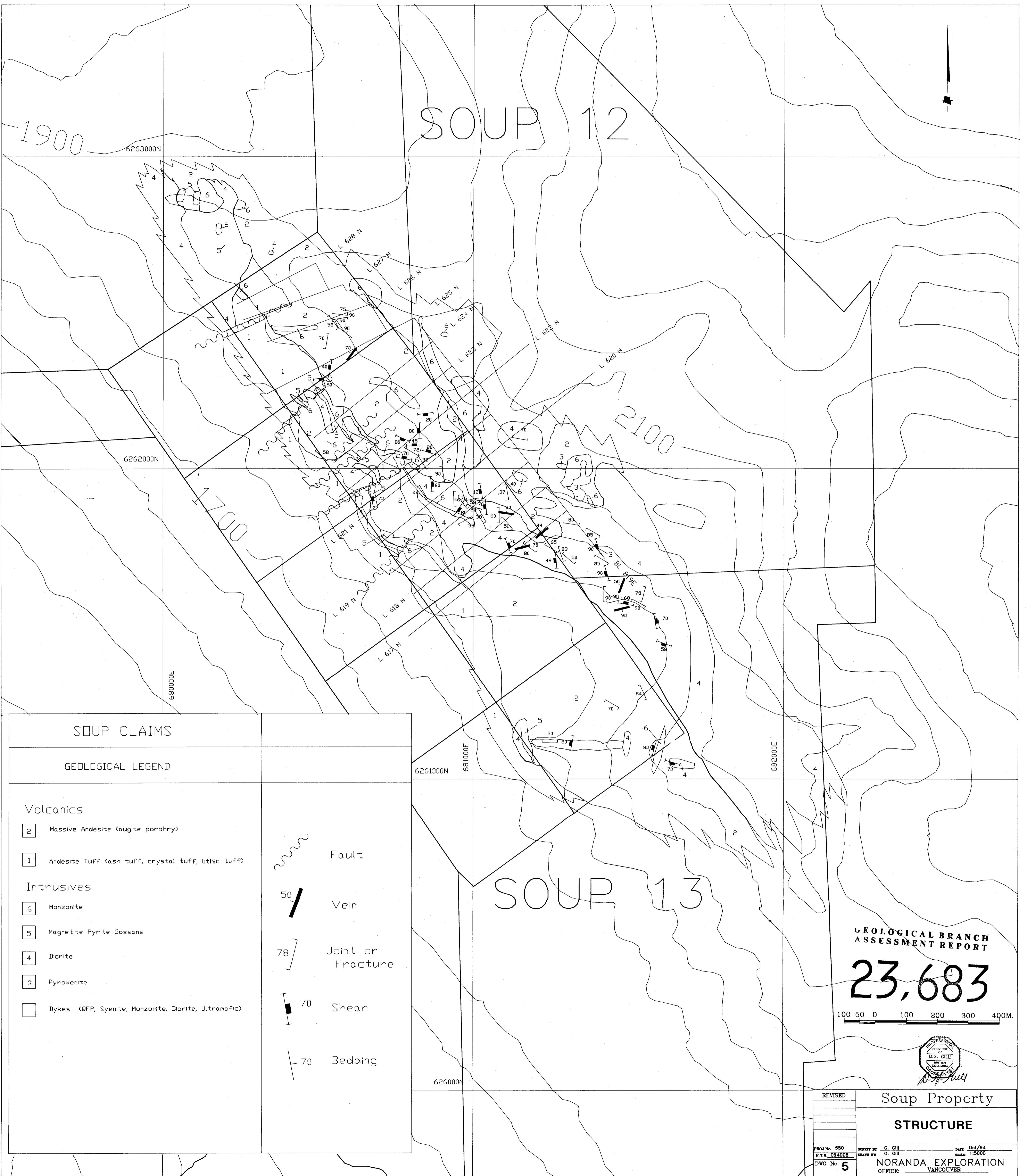
SOUP CLAIMS	
GEOLOGICAL LEGEND	SYMBOLS
<p>Volcanics</p> <p>2 Massive Andesite (augite porphyry)</p> <p>1 Andesite Tuff (ash tuff, crystal tuff, lithic tuff)</p> <p>Intrusives</p> <p>6 Monzonite</p> <p>5 Magnetite Pyrite Gossans</p> <p>4 Diorite</p> <p>3 Pyroxenite</p> <p>□ Dykes (QFP, Syenite, Monzonite, Diorite, Ultramafic)</p>	<p>Drill collars</p> <p>trenches</p> <p>4</p>

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,683



REVISED	SOUP PROPERTY		
	GEOLOGY		
PROJ. No. 550	DRAWN BY G.GILL	DATE OCT/84	
N.T.R. 540/8	CHECKED BY G.GILL	SCALE 1:5000	
DWG No. 4	NORANDA EXPLORATION OFFICE: VANCOUVER		



SOUP CLAIMS

GEOLOGICAL LEGEND

Volcanics

- 2 Massive Andesite (augite porphyry)
- 1 Andesite Tuff (ash tuff, crystal tuff, lithic tuff)

Intrusives

- 6 Monzonite
- 5 Magnetite Pyrite Gossans
- 4 Diorite
- 3 Pyroxenite
- Dykes (QFP, Syenite, Monzonite, Diorite, Ultramafic)

- Fault
- 50 Vein
- 78 Joint or Fracture
- 70 Shear
- 70 Bedding

SOUP 13

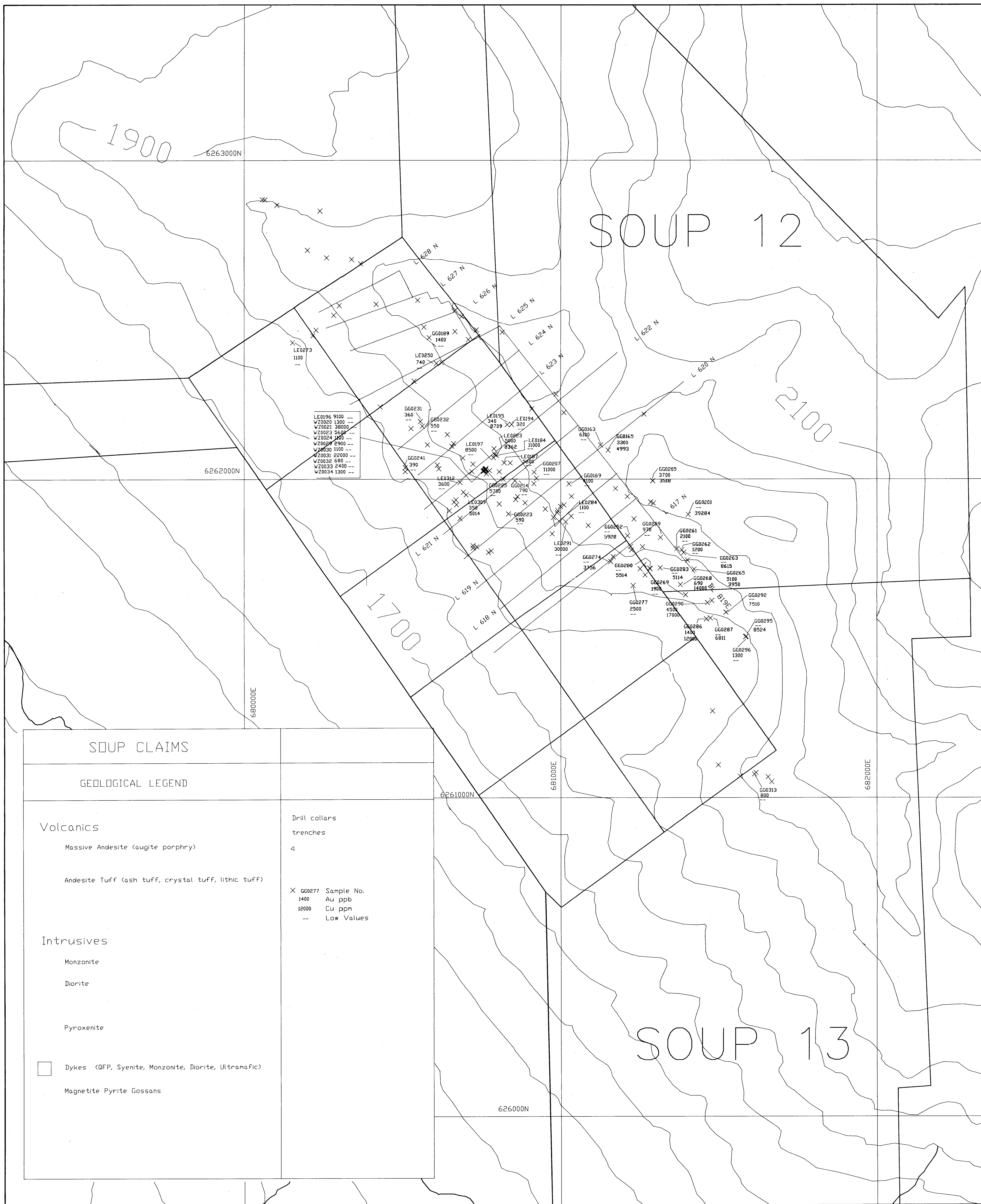
GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,683

100 50 0 100 200 300 400M.



REVISED	Soup Property	
	STRUCTURE	
PROJ. No. 550	SURVEY BY: G. GILL	DATE: Oct/94
N.T.S. 094008	DRAWN BY: G. GILL	SCALE: 1:5000
DWG No. 5	NORANDA EXPLORATION OFFICE: VANCOUVER	



SOUP CLAIMS

GEOLOGICAL LEGEND

Volcanics

- Massive Andesite (augite porphyry)
- Andesite Tuff (ash tuff, crystal tuff, lithic tuff)

Intrusives

- Monzonite
- Diorite
- Pyroxenite

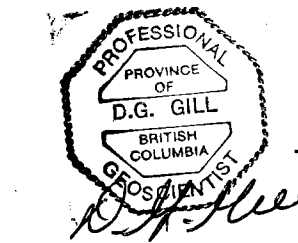
- Dykes (GFP, Syenite, Monzonite, Diorite, Ultramafic)
- Magnetite Pyrite Gossans

- Drill collars
- trenches
- 4
- X GG0277 Sample No.
- 1400 Au ppb
- 12000 Cu ppm
- Low Values

GEOLOGICAL BRANCH ASSESSMENT REPORT

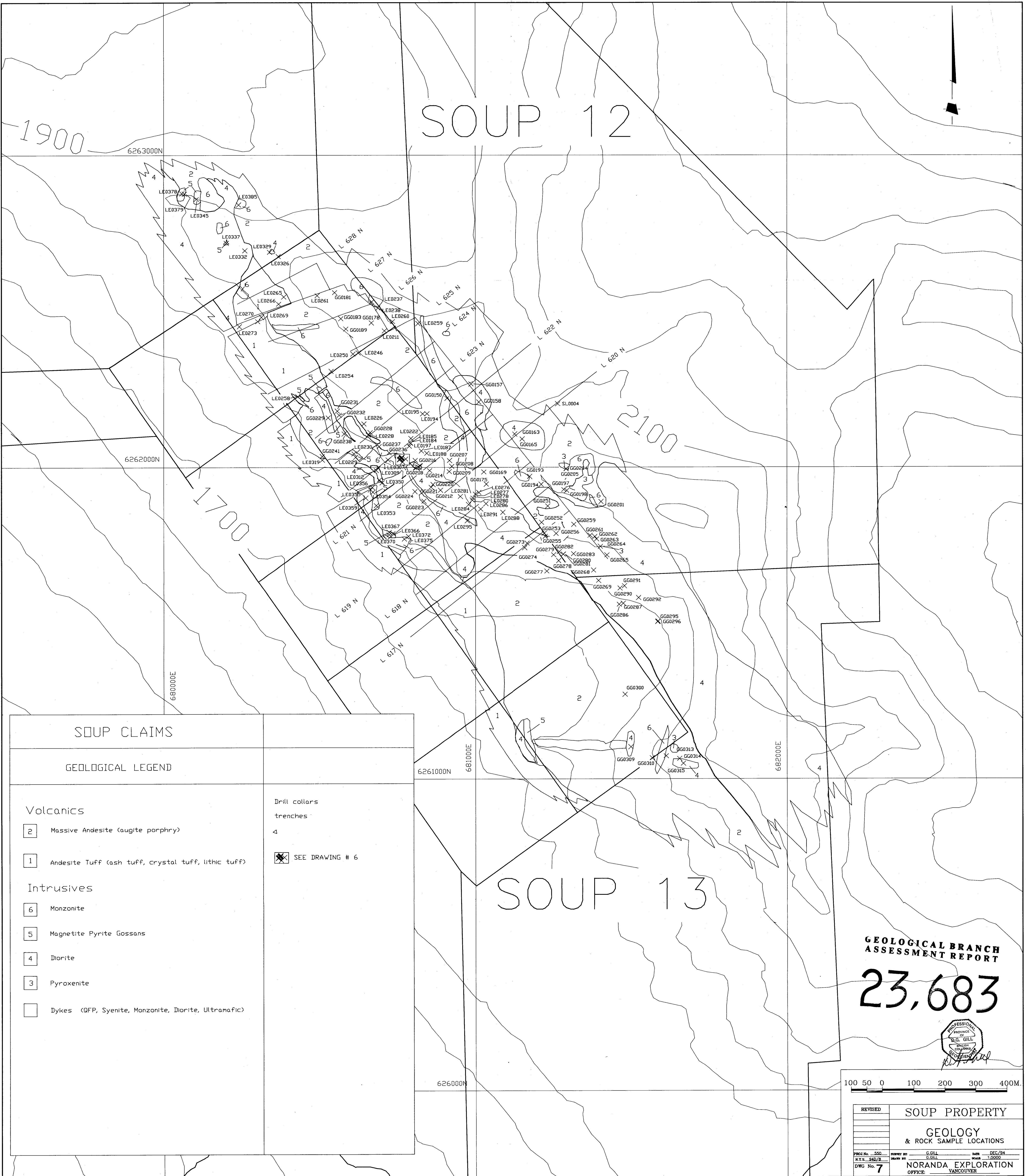
23,683

100 50 0 100 200 300 400M.



REVISED	SOUP PROPERTY		
	ROCK SAMPLE LOCATIONS & ASSAYS		
	(>250 ppb Au, >500 ppm Cu)		
PROJ. No. 550	DRAWN BY: G.GILL	DATE: OCT/94	
N.T.S. 840/8	CHECKED BY: G.GILL	SCALE: 1:5000	
DWG No. 6	NORANDA EXPLORATION OFFICE: VANCOUVER		

SOUP 12



SOUP CLAIMS

GEOLOGICAL LEGEND

Volcanics

- 2 Massive Andesite (augite porphyry)
- 1 Andesite Tuff (ash tuff, crystal tuff, lithic tuff)

Intrusives

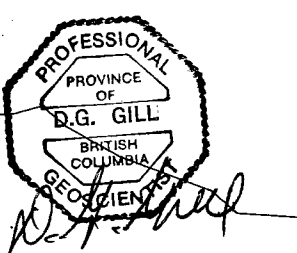
- 6 Monzonite
- 5 Magnetite Pyrite Gossans
- 4 Diorite
- 3 Pyroxenite
- Dykes (GFP, Syenite, Monzonite, Diorite, Ultramafic)

- Drill collars
- trenches
- 4
- X SEE DRAWING # 6

SOUP 13

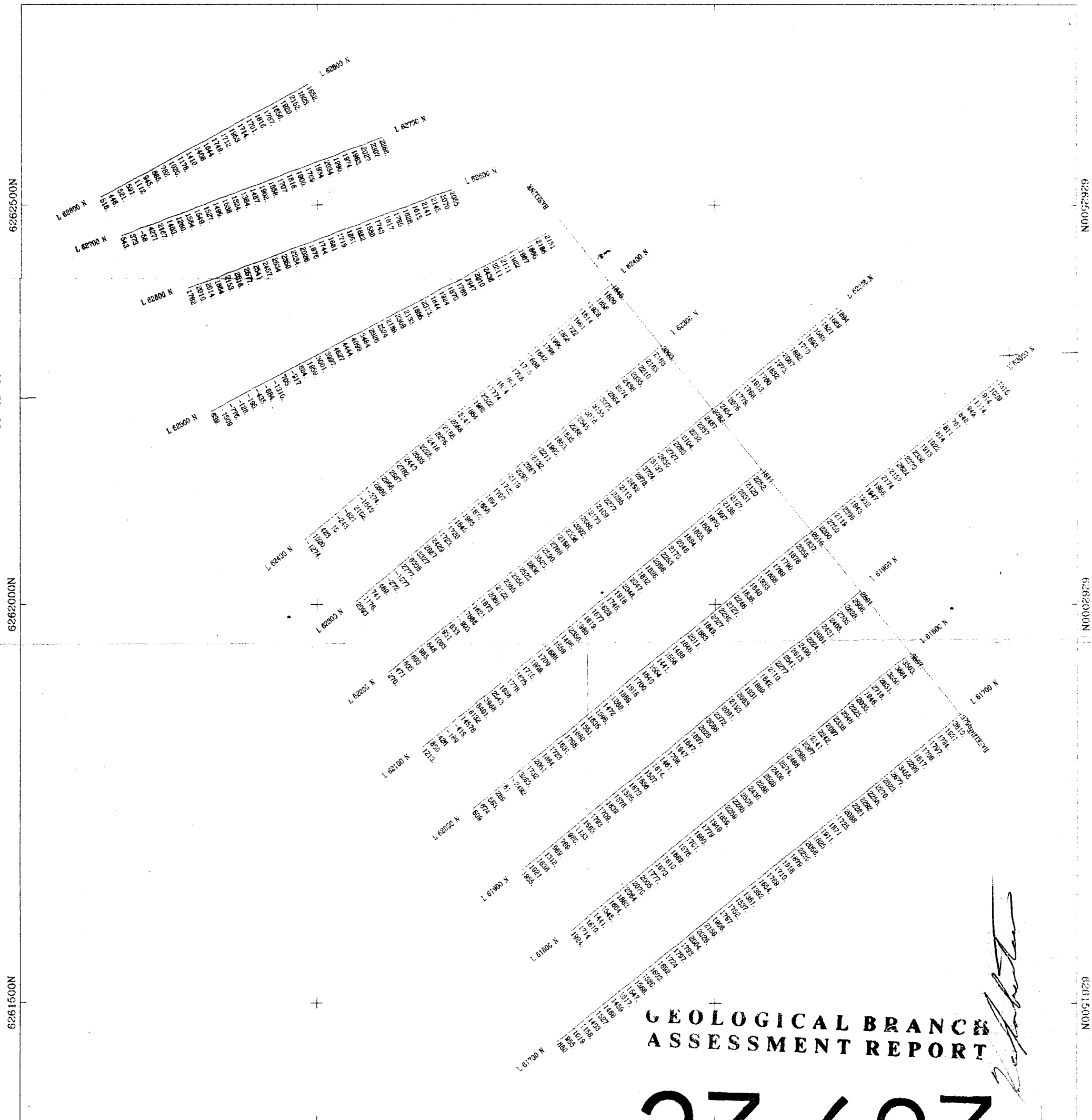
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

23,683



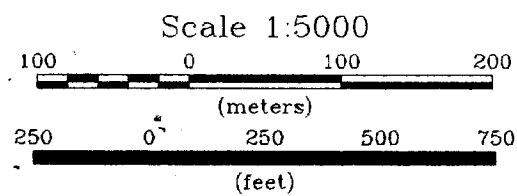
100 50 0 100 200 300 400M.

REVISED	SOUP PROPERTY	
	GEOLOGY & ROCK SAMPLE LOCATIONS	
PROJ No. 550	SURVEY BY G. GILL	DATE DEC/94
N.T.S. 240/2	DRAWN BY G. GILL	SCALE 1:5000
DWG No. 7	NORANDA EXPLORATION OFFICE: VANCOUVER	



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

23,683

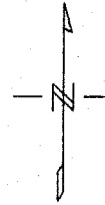


SOUP GRID GROUND MAGNETICS
SURVEYED BY WALCOTT & ASSOC.
SEPTEMBER 1994

Datum of 57,000nT
subtracted from
readings.

680500E

681000E



6262500N

6262500N

6262000N

6262000N

6261500N

6261500N

680500E

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

23,683

**Interpreted Magnetic
Breaks**

SOUP GRID
WALCOTT & ASSOC
SEPTEMBER 1994

