84-#977-13030

DRILL ASSESSMENT REPORT

FOR

SYLVESTER "K" GRID

OF THE GREENWOOD 1 CLAIM GROUP

N.T.S. 82E/2

118°35'W Long. 49°15'N Lat.

GREENWOOD MINING DIVISION

10/85

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Noranda Exploration Company, Limited
(No Personal Liability)

March 29 - April 8, 1984

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1 - INTRODUCTION

Between March 29, 1984 and April 8, 1984, Noranda Exploration Company, Limited (No Personal Liability), conducted a Diamond Drilling Programme on the Sylvester "K" grid of the Greenwood 1 Group of claims.

During this period 4 holes (SK-24-84, SK-25-84, SK-26-84 and SK-27-84) were drilled, totalling 953 feet (290.47 m). The numbering system is compatible with that used by Kettle River Resources in their 1983 drilling programme.

All holes were assayed for gold and silver. Drill hole SK-26-84 was the only hole which showed any promise. It indicated a gold positive zone near the contact between a sharpstone conglomerate and limestone unit.

This zone may warrant further investigation as it is very similar to gold bearing horizons discovered by R. Forshaw in 1932.

2. LOCATION AND ACCESS

The Greenwood 1 Group of claims are located some 6 km east of Greenwood, B.C., centered on longitude 118°35'W and latitude 49°15N, within the Greenwood Mining Division, on N.T.S. mapsheet 82E/2.

Access is excellent in the south via the partially paved Twin Creek Road which runs east from Greenwood for some 7 km, at which point it passes by the southern end of the Sylvester "K" Grid. Access in the north is good via Highway #3 which bisects the claim group.

3. TOPOGRAPHY AND VEGETATION

The Greenwood 1 Group is situated in relatively gentle to rolling hilly terrain, with a maximum elevation of approximately 4,850 feet on Deadman Hill.

Southern slopes are often open with sparce spruce, where as, northern slopes tend to be denser with a second growth of cedar, spruce and alders.

4. CLAIM INFORMATION

The Greenwood 1 Group of claims consisting of 73 claim units, are owned in part by Noranda Exploration Company, Limited (No Personal Liability) situated at 1050 Davie Street, Vancouver, B.C. and in part by Kettle River Resources Limited of Greenwood, B.C.

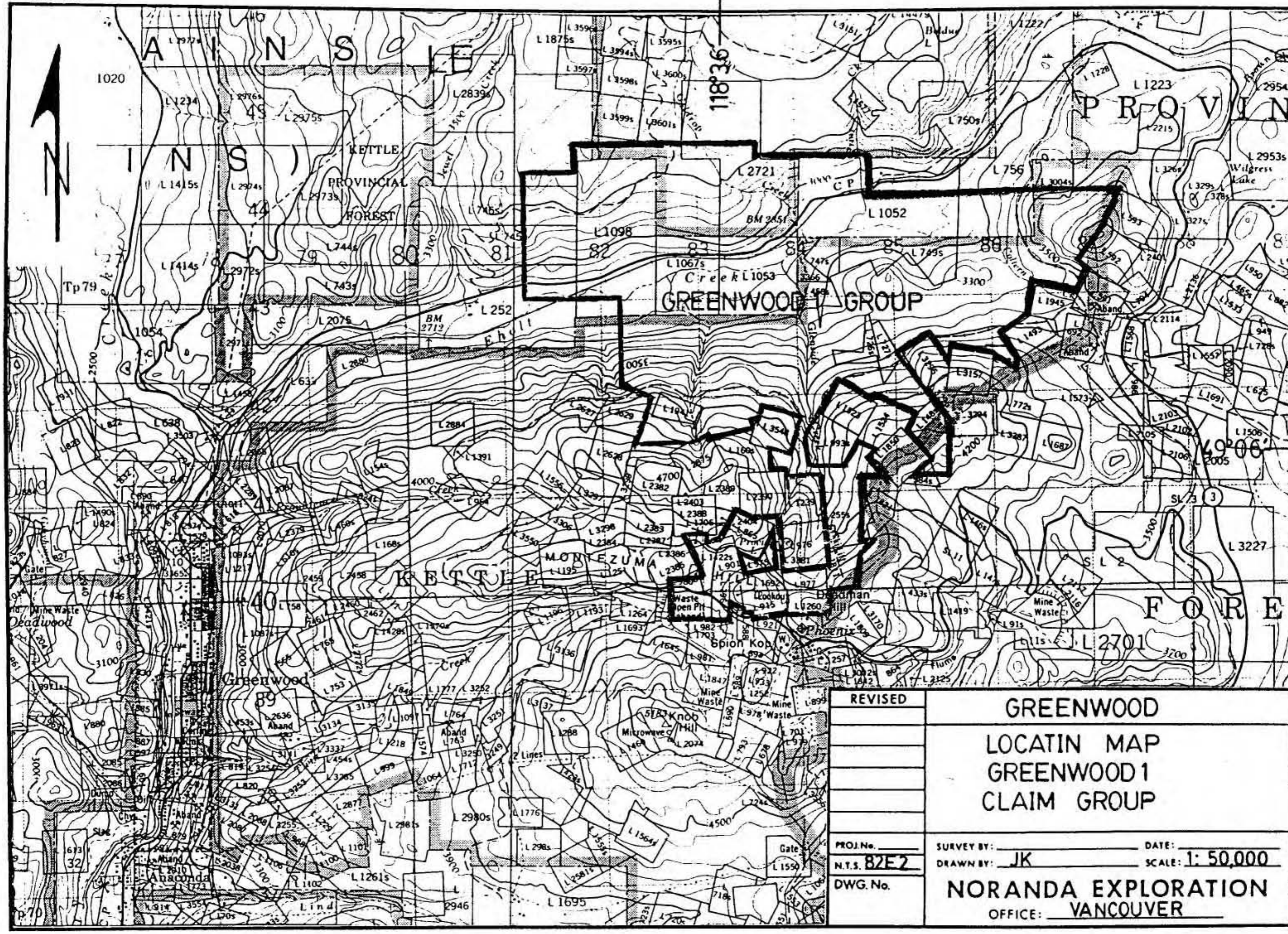
GREENWOOD 1 GROUP OF CLAIMS

Claim Name	Owner		Record No.	Record Date
Pipe	Kettle River Resources		3165	Aug. 23/82
Pipe 1 Fr.	Ltd.		3166	Aug. 23/82
Pipe 2 Fr.	"	"	3167	Aug. 23/82
Pipe 3 Fr.	"	"	3168	Aug. 23/82
Pipe 4 Fr	"	"	3169	Aug. 23/82
Laxey	"	"	3242	Oct. 7/82
Barron Fr.	"	"	3281	Oct. 26/82
File Fr.	"	"	3280	Oct. 26/82
Iron King	"	"	3279	Oct. 26/82
Pal	"	"	3275	Oct. 26/82
Ron	"	"	3273	Oct. 26/82
Bonnie	"	"	3334	Oct. 26/82
Ron Fr.	"	"	3333	Oct. 26/82
Gem Fr.	"	"	3172	Aug. 23/82
Bullion Fr.	"	"	3171	Aug. 23/82
Bobcat #9	Noranda Exploration		21763	July 7/65
Bobcat #10	Company, Limited (No		21764	July 7/65
Sylvester K Fr.	Personal Liability)		(ML) 289	Sept.
Gypsy	"	"	(CG)1811	
Gilt Edge	"	"	" 977	
Monte Christo Fr.	"	"	" 3381	
Bullion	"	"	" 865	
Timer Fr.	"	"	" 1705	
New York	"	"	" 901	
Cimeron	"	"	" 980	
Brooklyn	"	"	" 796	
Joker	"	"	" 1692	
Montezuma	"	"	" 915	

(ML) Mineral Lease

(CG) Crown Grant

VANCAL 11928



5. HISTORY

5A. Sylvester "K" Grid

The Sylvester "K" Grid was established in 1983, by Kettle River Resources Ltd., on a massive pyrite-pyrrhotite discovery containing good gold values which has come to be called the Sylvester "K" zone.

Kettle River Resources' 1983 exploration programme involved extensive trenching, geophysics and diamond drilling on the Sylvester "K" zone. Trenching proved the zone to be approximately 800 feet long with widths varying between 7 to 20 feet. During the geophysical programme, a second zone of massive pyrrhotite and pyrite, called the Timer Zone, was discovered and trenched, but never drilled.

The 1983 diamond drilling programme on the Sylvester "K" zone, consisted of 23 holes and proved it to have a limited depth extent of approximately 100 feet.

5B. Brooklyn Mine

The Brooklyn Mine was discovered in 1891 by Joseph Taylor and Stephen Mangott (LeRoy, 1912). The Dominion Copper Company operated the mine between 1901 and 1908. According to W.R. Gilmour (1983), there are discrepancies in the estimated production tonnages of the Brooklyn Mine. One estimate by W.H. White (1949) states, 250,293 tons grading 1.2% copper, 0.068 oz/ton gold and 0.35 oz/ton silver; a second estimate by O.E. LeRoy (1912) is, 135,000 tons of ore, but fails to give any grade estimates.

Two zones of interesting gold values associated with the Brooklyn Mine were discovered by R Forshaw in 1932, as well as a third zone mentioned by LeRoy in 1912.

The zones found by R. Forshaw are related to the "Glory Hole" and the "80 foot level" of the mine, and are as follows:

> "The rocks in which copper ores were mined in the past were limestone, whereas the recently found gold values are associated with the pyrite and calcite in brecciated volcanics lying on the hanging wall side of the tilted sedimentary beds. A general sample of ore across a 6-foot section in the "glory hole" assayed gold 1.70 oz; silver 1.3 oz per ton; and a 5 foot chip sample taken across the face of the 80 foot level in the Brooklyn assayed: gold 0.80 oz; silver 0.2 oz per ton; copper nil". (1932, B.C.M.M Annual Report, p.129)

The gold zone mentioned by LeRoy in 1912 is related to the "150 foot level" of the Brooklyn Mine and is as follows:

> "Beyond the ore body proper in the north end of the Brooklyn, pyritic crystalline limestone occurs in a raise from the 150 foot level. A sample was taken across the face and an assay made by H.A. Laverin of the Mines Branch, which gave 0.3 ounce of gold and 0.4 ounce of silver to the ton". (1912, LeRoy, O.E. p.101)

6. GRID CONTROL

The Sylvester "K" Grid, established in May 1983 by Kettle River Resources, is a picketed grid consisting of a 1,400 foot base line striking azimuth 20°, with fifteen perpendicular wing lines spaced 100 feet apart. Wing lines are 2,500 feet long with picketed stations every 50 feet. The grid was established, in part, by standard backsite picketing methods and in part by utilizing a Wilde T1 Theodolite.

7. GEOPHYSICAL SURVEY

7A. Introduction

The survey was done, in part, during the summer of 1983 and the spring of 1984. The spring '84 survey was an I.P. survey, done in order to delineate favourable 1983 geophysical targets for drilling purposes. Only the costs related to the spring '84 survey will be included in this report.

The surveys were operated by the Western Geophysical Division of Noranda Exploration Company, Limited (No Personal Liability) based at 1050 Davie Street, Vancouver, B.C.

Geocompilations, drawings 1 & 2, represent information collected during both the 1983 and 1984 surveys. They are further discussed in this section written by L. Bradish. (District Geophysicist for Noranda Exploration Company, Limited).

7B. Instrumentation

VLF-EM

The instrument used for this survey was manufactured by Sabre Electronic Instruments located in Burnaby, B.C. The method used was the standard operating procedure required to measure the resultant dip angle or tilt of the EM field. The transmitting station employed as a signal source was Laulaulei, Hawaii, U.S.A. (23.4 KHz).

MAGNETOMETER

"UNIMAG" G.836 Proton Precision magnetometers manufactured by Exploranium Geometrics of Ontario were utilized for this survey. The Total Field measurement is read with a resolution of 10 gammas and all recorded values were corrected for diurnal and day to day variations. The correction values were determined from a recording (EDA) base station located near the work site. Readings were recorded at 50 and 100 foot intervals and plotted in profile at a datum of 57,400 gammas.

INDUCED POLARIZATION SURVEY

The Induced Polarization equipment employed for this survey was manufactured by Phoenix Geophysics Ltd. This unit is a standard frequency domain system used in a fixed set-up mode. The survey parameters are as follows.

Array	: Dipole-dipole
Frequencies	: 0.25 & 4.0 Hz
Separations	: n = 1
Measurements	:
Frequency effects	: Percent
Resistivity	: Ohm-meters

The accuracy of the P.F.E. readings are typically +/- 0.5% and the resistivity values are within a 10% error envelope. The maximum power output of the transmitter under ideal conditions is 3KW however with the motor generator used for this survey (MG-1) the power output will not safely exceed 1KW.

7C. DISCUSSION OF RESULTS

Two lines are presented in this section of the report. They are L.205+00N, and 195+00N.

L.205+00N: DWG 1

This line was surveyed using I.P., Mag, VLF-EM and Mise-a-la-masse. All the data is compiled on Drawing 1. The purpose of the surveys presented for this line was to delineate and define the source of the 'TIMER' zone located at 195+35E and as indicated on the Geocompilation.

MAGNETOMETER SURVEY: The magnetometer survey recorded a narrow dipolar signature over the zone. The peak to peak amplitude is 2,720 nT over a distance of less than 200 feet. The profile indicates a narrow zone at surface. The data interval over the zone is at 25 foot intervals.

VLF-EM SURVEY: The data detected the zone at 195+35E with a peak to peak amplitude of approximately 20 degrees. Had the readings being recorded at the standard 100 foot intervals the existance of the 'crossover' would have been suspect. this would also apply to any data recorded over discrete intervals.

MISE-A-LA-MASS SURVEY: This survey produced a 'W' shaped anomaly indicative of a source of limited depth extent. Data on the adjacent lines, when contoured in plan suggests the Timer zone to be restricted in all three dimensions.

I.P. SURVEY: The Frequency Effect recorded in the vicinity of the Timer zone does not present an obvious response. In fact without prior knowledge of the existance of the zone its response would have gone unnoticed or be attributed to a high background.

The resistivity data shows no expression of the zone. It appears that the Timer zone lies near or at the contact between a high resistivity unit (rho-a > 1000 ohm-m) to the west and a lower resistivity unit (rho-a < 500 ohm-m) to the east.

A strong influence from the main Sylvester "K" showing/trench is seen on the PFE data. The PFE response due to the main showing (197+50E) extends from 196+50E to 199+00E at n=1. The width of this response is due in part to the electrode placement near the main pit. Similarly the Timer zone response extends from 193+50E towards the east where its response mixes with that from the main trench.

The PFE data recorded a relative but definite low beneath the Timer zone. This indicates the depth extent below the zone is somewhat limited.

LINE 195+00N: DWG 2

Two areas of interest were defined on this survey line. At 204+50E - 205+50E a shallow surficial source is defined by the PFE data. No magnetic response was recorded over this anomaly.

A second, but more subtle source, also within the same high PFE background package, is recorded at 206+00E (n=2). A coincident magnetic response of 300 nT occurs over this anomaly.

8. DRILLING PROGRAMME

8A. Introduction

Four diamond drill holes (SK-24-84, SK-25-84, SK-26-84, SK-27-84) were drilled between March 29 and April 8 of 1984. The four holes totalling 953 feet were located on the Sylvester "K" Grid by secant chaining methods.

The drill used was a Diamec 260 diesel hydraulic diamond drill which is owned and operated by Foxy Creek Services Limited of Greenwood, B.C.

Dip tests were taken at the completion of each hole and were measured by the use of a Thompson-Cumming True-Dip etch reader (corrected for capillarity).

Drill rods used were "B" type thin-wall which produce an "N" size (approx.) core. Core is currently being stored at the Kettle River Resources core shack, located some 3 kilometers south of Greenwood, at the Stewart farm.

8B. Core Analysis

Sampling was done in 5 foot intervals unless otherwise warranted by changes in rock type and/or mineralization.

All holes, in their entirety, were sampled and analyzed for gold and silver, except for DDH SK-27-84, as it was drilled adjacent to and is similar to the mineralization and lithologies for DDH SK-25-84.

Geochem analysis was done for all the Ag and part of the Au samples, at Noranda Exploration Company, Limited (No Personal Liability) geochem laboratory, which is situated at 1050 Davie Street, Vancouver, B.C.

The remaining samples, which were not analyzed for Au at the Noranda laboratory, were analyzed for Au by fire assay at Bondar-Clegg and Company Limited, situated at 130 Pemberton Avenue, North Vancouver, B.C. All analyses can be found in Appendix E; those analyzed for Au at Bondar-Clegg are marked by an asterix (*).

8Ba. Sample Preparation (Noranda Exploration Company, Limited)

The split (halved) core sample is pulverized to -120 mesh (0.13 mm). This -120 mesh fraction is then used for geochemical analysis.

8Bb. Analysis

Ag: 0.200 grams of -120 mesh material is digested in concentrate perchloric acid and nitric acid (3:1) at reflux temperature for 5.0 hours. A Varian Techtron Model AA-5 or AA-75 Atomic Absorption Spectrophotometer is then used to determine silver concentration.

Au: 10.0 grams of -120 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, which extract is analyzed for Au using an AA-475 Atomic Absorption Spectrophotometer.

TABLE 1

DRILL HOLE PARAMETERS

Hole #	Grid Co-ord.	Azimuth	Inclin-ation	Length (Ft)	Dip Test Depth	Dip Test Angle	Date Coll.	Date Comp
SK-24-84	205+00N,196+30E	290^{o}	40^{o}	148	140	40^{o}	Mar.30	Mar.30
SK-25-84	195+00N,206+13E	290^{o}	30^{o}	178	160	30^{o}	Apr. 2	Apr. 2
SK-26-84	192+50N,213+40E	290^{o}	50^{o}	479	468	50^{o}	Apr. 3	Apr. 3
SK-27-84	194+85N,206+53E	290^{o}	55^{o}	18	135	55^{o}	Apr. 7	Apr. 7

8C. Diamond Drill Hole SK-24-84 (Refer to Table 1 for drilling parameters)

8Ca. Target: The hole was based on a 1983 geophysical anomaly which was later trenched revealing the Timer zone. Mise-a-la-masse, VF-EM and magnetometer surveys best delineate the zone, which appears to be narrow, with limited depth extent, and centered on line 205+00N, at 195+35E. (see Geophysical Survey Discussion, line 205+00N and Drawing 1).

8Cb. Geology

Lithology: For a detailed description and section of the lithologies, refer to Appendix A (DDH Log for SK-24-84 and Drawing 3.)

Structure: Very little was noticed. Contacts were drawn from the angle to core axis of:

a) preferred grain alignment in the Sharpstone Conglomerate;

b) the contact between Sharpstone Conglomerate and Tuffite.

Minor fracturing was pervasive throughout the hole with angles to core axis of 40°, 30° and 20°

8Cc. Mineralization & Assay Results:

Disseminated pyrite (1-3%) was pervasive throughout the hole with only a 1.2 foot section of approximately 20% pyrite and pyrrhotite at 126.8 feet. Gold assays were insignificant as they were all less than or equal to 0.07 grams/tonne. silver assays were all less than 1.6 grams/tonne and are of little significance.

8Cd. Discussion of Drilling Results:

The plan was to intercept the Timer zone at depth on line 205+00N. If the body had a near vertical dip, then, the intersection should have occurred after 120 feet of drilling and a vertical depth of 65 feet. Drilling intercepted a 1.2 foot zone of semi-massive pyrrhotite and pyrite at 126.8 feet and a vertical depth of about 68 feet.

This 1.2 foot zone, which ran less than 0.07 grammes/ton, is believed to represent the Timer zone at depth and appears to verify its geophysical interpretation (i.e. narrow with, possible, limited depth extent).

8D. Diamond Drill Holes SK-25-84 and SK-27-84 (Refer to Table 1 for drilling parameters)

These two drill holes will be discussed together as they were drilled in close proximity to one another and are similar in lithologies. Drawing 5 is a geological section extrapolated between the two holes. Hole SK-25-84 was drilled on line 195+00N, where as hole SK-27-84 was drilled 15 feet south of line 195+00N. For extrapolation purposes hole SK-27-84 has been projected onto the vertical plane of L.195+00N.

8Da. Target:

Both holes were based on geophysical I.P. and/or magnetometer targets, delineated during the spring of 1984 (see Geophysical Survey discussion section Line 195+00N and Drawing 2).

DDH SK-25-84's geophysical target is centered on Line 195+00N at 205+00E. DDH SK-27-84's geophysical target is centered on Line 195+00N at 206+00E.

8Db. Geology

Lithologies: For lithological descriptions and section refer to Appendices B and D, as well as Drawing 4.

Points of Interest: The diorite feldspar porphyry (FSP porphyry) which has been extrapolated between the two holes (see Drawing 5) represents a flat dyke like body which may represent a fault zone. Evidence of a fault zone may be the possibility of offsetting shown by the banded argillite (calcareous) unit in Drawing 5. Further possible evidence is the 65% graphitic zone which may represent a minor horizontal shear zone; it's upper and lower contacts are sharp and at 60° and 65° to the core axis.

The very fine grained diorite (V.F. diorite) seen in DDH SK-25-84 is not seen in DDH SK-27-84. This fact along with its lower contact being at 30° to the C.A. axis might indicate a possible westerly dip for the intrusive.

Also of interest is the prominant skarn zone associated with the shallowest dioritic intrusive. An increase in fluids and/or temperature may have caused this zone. For this reason, the intrusive may be of interest as a source of mineralization.

Ages and relationships of the intrusives are unknown.

Structure: Most units appear to be steeply dipping to the east with an angle to core axis of 70°. The easterly dip direction is taken from proximal surface geology.

The only other structure noticed is the possibility of faulting associated with the feldspar porphyry (FSP porphyry), as mentioned previously in the lithological section.

8Dc. Mineralization & Assay Results (For assaying parameters refer to Section 8B)

Disseminated pyrite (1-3%) was pervasive throughout the hole with the occasional small zone of up to 18% pyrite.

Hole SK-25-84 was assayed for Au and Ag in its entirety, with only 3 five foot sections of hole SK-27-84 being assayed. Both holes had insignificant assay results of less than or equal to 0.07 grams/tonne Au and less than 1 gram/tonne Ag.

8Dd. Discussion of Drilling Results

Hole SK-25-84: Proposed target was centered on line 195+00N at 205+00E, with a depth ranging between 75 feet and 120 feet. Drilling intersected a broad zone of calcareous argillite, often graphitic and pyritic, between 204+60E and 205+20E at a depth ranging between 78 feet and 110 feet. This zone is believed to be the conductive body and warrants no further investigation.

Hole SK-27-84: Proposed target was a subtle I.P. source with a coincident magnetic high centered on line 195+00N at 206+00E. It was thought to be at a depth ranging between 90 and 120 feet. the intersection was to occur after 85 feet of drilling. At this point the drilling was well into a broad zone of limestone breccia often containing graphite and pyrite. This zone would definitely represent a subtle I.P. source but there appears to be no cause for the narrow magnetic high. This zone, like that related to SK-25-84, warrants no further investigation.

8E. Diamond Drill Hole SK-26-84 (Refer to Table 1 for drilling parameters).

8Ea. Target: The three gold bearing zones mentioned earlier in the Brooklyn History section (5B), represent the basis for DDH SK-26-84's target. These three zones are all located at the north end, and associated with separate levels of the Brooklyn Mine (i.e. the Glory Hole, 80 foot level, and the 150 foot level).

The Glory Hole and 80 foot level were, "associated with pyrite and calcite in the brecciated volcanics (sharpstone conglomerate) lying on the hanging wall side of tilted sedimentary beds (Brooklyn limestone unit)" (1932, B.C. Minister of Mines, p.129). Our intention was to drill a hole at the northern edge of the Brooklyn Mine, which would intersect the sharpstone conglomerate and the Brooklyn limestone contact at or near the 150 foot level. This would hopefully prove up a gold bearing zone at depth, which was similar to that of the Glory Hole and the 80 foot level.

To locate diamond drill hole SK-26-84, a raise (shaft) at the north end of the Brooklyn Pit (Glory Hole) was used in conjunction with old sections and profiles of the Brooklyn Mine. The approximate northerly projection of the Brooklyn Mine's 150 foot level can be seen in Drawing 5.

8Eb. Geology

Lithology: For lithological descriptions and sections refer to Appendix C and Drawing 5.

Note: The limestone (calcareous siltstone) may be silicified as it appears, in sections, to be extremely hard.

Structure: All contacts, and dips were drawn from the angle to core axis of:

a) preferred grain alignment and/or contacts between granularity changes in the sharpstone conglomerate

OR

b) colour banding in the limestone (calcareous siltstone).

The eastwardly dip direction is taken from proximal surface geology.

Dips and contacts of the intrusive swarm, near the end of hole SK-26-84 in Drawing 5, were drawn on the basis of two sharp upper contacts of the syenites. These contacts are at 431 ft. and 445 ft. The intrusives are believed to lie horizontally as this is the dominant case in holes SK-25-84 and SK-27-84.

Angles to core axis of colour banding in the limestone unit have been drawn on in several places of Drawing 5. They have also been extended with question marks (?). The resulting pattern is a series of tight somewhat isoclinal folds. If this were the case then you would expect to see a similar pattern in the sharpstone conglomerate. No evidence of folding could be seen in the sharpstone conglomerate, but this may be due to it's massive and somewhat homogenous nature.

8Ec. Mineralization and Assay Results (For assaying parameters refer to Section 8B)

Disseminated pyrite (1-3%) occurs throughout the hole with the exception of minor increases in pyrite, pyrrhotite and chalcopyrite, which are usually associated with quartz calcite veining (as shown in Drawing 5).

Gold assays were generally low (0.07 grams/tonne or less) with the exception of 14 five foot intervals, assaying between .14 gram/tonne and 4.96 grams/tonne Au.

Silver analyses were low, less than 1.7 grams/tonne, with the exception of one (also low) 5 foot interval assaying 11 grams/tonne (sample #0561), which is of little significance.

8Ed. Discussion of Drilling Results

The intended target was the contact between the sharpstone conglomerate and limestone near the northern end and the 150 foot level of the Brooklyn Mine. The sharpstone-limestone contact was intersected after 248.8 feet of drilling and an approximate depth of 135 feet.

No significant gold intercepts were found, but there is evidence of a gold positive zone. This zone has higher than background gold values and lies in the sharpstone conglomerate unit near the limestone contact. It starts at

Sample #0537 and ends at the limestone contact (Sample #0546) with a total overall length of 52.8 feet and an average grade of 0.78 grams/tonne gold. There appears to be an intimate association between an increase in gold background and an increase in quartz, pyrite and/or calcite, chalcopyrite veining. (as can be seen in Drawing 5). This association may be similar to that found in 1932 by F. Forshaw, "Gold values are associated with pyrite and calcite in the brecciated volcanics lying on the hanging wall side of the tilted sedimentary beds". (1932, B.C.M.M. Annual Report, p.129).

9. CONCLUSION AND RECOMMENDATIONS

Four diamond drill holes were drilled during the spring of 1984 on the Sylvester "K" Grid of the Greenwood 1 Group of claims. These holes were SK-24-84, SK-25-84, SK-26-84 and SK-27-84.

All holes, except for DDH SK-27-84, were analyzed in their entirety for gold and silver in grams/tonne. Holes SK-24-84, SK-25-84 and sections of SK-27-84 ran very little, if no gold and silver. Hole SK-26-84 was the only promising hole as it discovered a gold positive zone similar to the gold bearing horizons found by R. Forshaw in 1932. (See History of Brooklyn Mine, section 5B)

The gold positive zone is represented by higher than background Au values averaging 0.78 grams/tonne over 52.8 ft. The zone is situated in the sharpstone conglomerate unit (brecciated volcanic), near the limestone (calcareous siltstone) contact. This increase in the background gold level appears to be intimately associated with quartz-pyrite-calcite and chalcopyrite veining. (See Drawing 5).

For this reason, there is a possibility that gold bearing solutions migrated along the limestone-sharpstone conglomerate contact, depositing gold along fractures in the hanging wall rocks (i.e. sharpstone conglomerate). Further evidence of this could be the increase in epidote, hematite, chlorite alteration of the sharpstone conglomerate and tuffite near the limestone contact. Also suspect, is the 8 cm. zone of 25% pyrite and 2 cm. quartz-calcite breccia zone at the sharpstone limestone contact.

This gold positive zone, which is very similar to the gold bearing horizons found by R. Forshaw in 1932, may be indicative of a gold horizon rimming the Brooklyn Mine. For this reason further studies and/or exploration are recommended to the south along the eastern edge of the Brooklyn Mine.

REFERENCES

Freeland, P.B.: 1932, B.C. Minister of Mines Annual Report.

Gilmour, W.R.: 1982, Assessment Report on the Brooklyn Crown Granted Claim.

Leroy, O.E.: 1949, B.C. Minister of Mines Annual Report.

White, W.H.: 1912, Geological Survey of Canada, Memoir No.21.

APPENDIX A

DIAMOND DRILL HOLE

LOG SK-24-84

DIAMOND DRILL HOLE LOG SK-24-84

FROM (Ft.)	TO (Ft)	AVERAGE RECOVERY	DESCRIPTION
0'	10'		Casing.
10.0'	23.5'	97%	Tuffite:- Green to grey; massive with tuffaceous to lapilli size felsic and minor crystal fragments. -Pyrite (2-3%) is pervasive throughout the unit as disseminations and veins. -22.7'- faint preferred grain alignment is at 50° to core axis.
23.5'	27.0'	97%	Augite ? Porphyry (diorite):- Mottled dark green and grey, porphyrytic with phenocrysts of augite ? Amphibole (0.2-1 cm) and plagioclase ? feldspar (0.2-1 cm), which are set in a green finely crystalline matrix. Alteration (minor) consisting of aurioles of chlorite and epidote. Mineralization pyrite (2-3%), disseminated and veined -23.6'- upper contact, at 50° to core axis. 27'- lower contact, at 50° to core axis.
27.0'	65.5'	97%	Tuffite: - identical to that mentioned previously (10'-23.5'). 28' faint grain alignment is at 50° to core axis.
65.5'	75.2'	97%	Sharpstone conglomerate: green-grey massive with angular to subrounded lappilli size felsic (chert ?) and chloritic fragments. Contains up to 3% disseminated and veined pyrite. 65.5' upper contact with the tuffite unit obscure and possibly, faintly gradational. 66.0'- faint fragment alignment at 50° to core axis. 75.2' - lower contact with tuffite unit sharp and at 50° to core axis.
75.2'	91.0'	97%	Tuffite: - identical to those mentioned previously (10-23.5') and (27-65.5'). -77' faint grain alignment is at 50° to core axis.

FROM (Ft)	TO (Ft)	AVERAGE RECOVERY	DESCRIPTION
91.0'	95.6'	97%	Sharpstone conglomerate: identical to that mentioned previously (65.5-75.2')/ -91.0' upper contact is sharp at 50° to core axis.
95.6'	102.3'	97%	Limestone: - white to grey, massive and finely crystalline. Alteration: minor chlorite, hematite and epidote.
102.3'	126.8'	97%	Interbedded tuffite and sharpstone conglomerate. Combination of alternating tuffite and sharpstone conglomerate units (identical to those mentioned previously) with indiscernable, possibly gradational contacts. The entire unit is green to dark green with emerald green swirls and grey bands or fractures. Alteration: - moderate to extensive (increasing with depth) consisting of chlorite, hematite and epidote.
126.8'	128.0'	97%	Highly chloritzed, pyrrhotite and pyrite zone: - highly fractured with chlorite, minor epidote, minor graphite and 25% Po and Py.
128.0'	133.0'	97%	Identical to those mentioned previously in sections (10-23.5'), (27-65.5') and (75.2-91') with the exception of the slight increase in chlorite and epidote alteration. Faint grain alignment gives a 40° angle to core axis.
133.0'	148.0'	97%	Sharpstone conglomerate: - identical to those mentioned in sections (65.5'-75.2') and (91-95.6'). Contains disseminated pyrite upto 6%. 141.6' faint fragment alignment is at 43° to core axis.

APPENDIX B

DIAMOND DRILL HOLE

LOG SK-25-84

DIAMOND DRILL HOLE LOG SK-25-84

FROM (Ft)	TO (Ft)	RECOVERY RECOVERY	DESCRIPTION
0'	2.0'	95%	Casing
2.0'	4.3'	95%	Skarn: - green-grey with emerald green bands and swirls. Very fine grained, massive, highly siliceous and altered (65% or more) with epidote, chlorite, minor hematite and kaolin. Contains 2-3% disseminated Py, throughout.
4.3'	8.6'	97%	Augite diorite: - green to mottled green and grey. Fine grained, slightly porphyritic with phenocrysts of plagioclase feldspar (< 0.6 cm) and augite 0.2-1 cm). Alteration: - minor chlorite and epidotization.
8.6'	15.0'	97%	Skarn: - identical to that mentioned earlier (2 to 4.3 ft.).
15.0'	16.8'	97%	Altered sharpstone conglomerate and tuffite: - minor blue-grey to grey fragments (.5-2 cm), set in a very fine grained green-brown matrix. Highly chloritized, calcified and siliceous.
16.8'	31.6'	97%	Limestone Bx - light to dark grey, mosaic (breccia) fabric made of angular to subrounded, laminated to massive calcareous siltstone and limestone fragments. Set in a green, very fine grained, siliceous to calcareous matrix 1%-2% disseminated Py.
31.6'	35.3'	97%	Banded argillite (calcareous):- grey-black, finely banded, graphitic, calcareous silt and clay. 10-15% disseminated and banded pyrite throughout. Banding is at 70^{o} to core axis.

FROM (Ft)	TO (Ft)	AVERAGE RECOVERY	DESCRIPTION
35.3'	96.2'		Limestone Bx.- light to dark grey, mosaic (breccia) fabric made of angular to subrounded, laminated to massive, calcareous siltstone and limestone fragments. Set in a black, very fine grained, graphitic and calcareous matrix. Disseminated pyrite (2-5%) is pervasive throughout the matrix. 63-64.5': 15%-18% pyrite, encompassing and infilling carbonate fragments.
96.2'	111.6'	97%	Fsp. Porphyry: - green, spotted with blebs and laths of feldspar phenocrysts (< 1.2 cm), set in a green-grey, very fine grained, equigranular matrix. Upper contact (96.2') is broken with a possible angle to core axis of 35^{o}/ Lower contact (111.6') forms an approximate angle to core axis of 35^{o}.
111.6'	152.5'	97%	Calcareous argillite (banded):- grey-black, thinly banded calcareous silt and clay, often graphitic. Disseminated and banded Py. (2-4%) is pervasive throughout. Banding has an angle to core axis of 70^{o}
152.5'	154.0'		Limestone Bx: Identical to that mentioned previously (35.2-96.2ft.).
154.0'	155.0'		Calcareous argillite (banded): identical to that mentioned previously (111.6-152.5 ft). 166'- banding is at 75^{o} to core axis.
155.0'	163.0'	97%	V.F. diorite:- mottled green-grey, essentially equigranular, consisting of very fine grained amphibole ? and plagioclase ? feldspar. Upper contact (155 ft) is broken. Lower contact (163 ft) is brecciated, and may be at 30^{o} to core axis.
163.0'	178.0'	97%	Calcareous argillite (banded): - identical to those mentioned previously (111.6-152.5 ft) and (154-155 ft).

APPENDIX C

DIAMOND DRILL HOLE

LOG SK-26-84

DIAMOND DRILL LOG SK-26-84

FROM (Ft)	TO (Ft)	AVERAGE RECOVERY	DESCRIPTION
0'	15.0'		Casing
15.0'	196.0'	97%	Upper sharpstone comglomerate: - green to mottled green-grey with angular to subrounded (.2-10 cm) fragments. Predominant fragments are: 1) Grey, laminated to massive felsic (chert ?) fragments. 2) Green to dark green, massive to spotted white siliceous fragments. Other minor fragments are: jasper, laminated calcareous siltstone and quartz-eye rhyolites. The unit is generally massive in appearance with the exception of the following (faint) preferred fragment alignments and their corresponding angle to core axis.

Depth (Ft)	Angle to Core Axis of preferred fragment alignment
37	50°
60	45°
116	40°
134	50°
145	35°

Disseminated pyrite occurred throughout the section averaging 1-3%.

17.1'-18' - 15-20% Po, Py as disseminations as well as rimming fragments.

25'-30' - 5 cm-1.3 cm fragments of 50% - 80% Py.

41'-41.6' 10% pyrite and trace chalcopyrite.

89'-90.7' 10% pyrite with veins + stringers of calcite and quartz at 40° to the core axis.

90.7'-93.6' 25% py. in black highly graphitic gouge type material.

142.3' - 1 inch wide quartz vein at 40° to core axis, containing 20% Py and 2% Cpy.

FROM (Ft)	TO (Ft)	AVERAGE RECOVERY	DESCRIPTION
			148.6'-168.6' zone containing trace amounts of Cpy. 175.6' - 1" wide quartz vein at 35° to core axis, containing 4% Cpy and 2% Py.
196'	217.5'	97%	Altered tuffite: Fine to very fine grained, dark green with light to emerald green bands and swirls. - alteration (up to 40%) is pervasive throughout and consists of epidote chlorite, hematite and minor kaolin. - Disseminated Py (1-3%) is pervasive throughout the section. 196' - contact at 50° to core axis 196'-199.4 - quartz-calcite veining, containing up to 40% Py and 5% Cpy. 208'-213' - 0.5 in. wide quartz-calcite vein, containing 30% Py and 3% Cpy at 10° to core axis.
217.5'	248.8'	98%	(Altered) interbedded, upper sharpstone conglomerate and tuffite. - rock units are identical to those mentioned earlier. - contacts between the two units are indiscernable except for one sharp contact at 228 feet which is at 50° to core axis. - alteration is moderate to extensive and consists of chlorite, hematite, epidote and minor kaolin. 217.5'223' - quartz-calcite veining at 40° to core axis, contain up to 20% Py and 1% Cpy. 231.4'-232' - stockwork of chlorite-hematite stringers containing up to 15% pyrite. 233.2'-233.3' - soft grey (20% Py) gouge or clay material. 241'-242' - quartz-calcite stockwork (80% broken rock). 248'-248.8' - 25% banded and disseminated pyrite associated with quartz and calcite veining.

FROM (Ft)	TO (Ft)	AVERAGE RECOVERY	DESCRIPTION
248.8'	266.5'	98%	Limestone (calcareous siltstone): white with purple, grey and green interbands. Very fine grained, appearing siliceous in sections, possibly a calcareous siltstone. Separation of limestone and somewhat siliceous sections, is very difficult and was not done. Angles to core axis of colour banding were taken at random throughout the hole from 248.8' to 408.8' and are shown here:

Depth (Ft.)	Angle to Core Axis of colour banding
258'	70°
278'	50°
311'	70°
329'	60°
345'	70°
369'	70°
375'	50°
381'	90°
385'	55°
406'	75°

Disseminated Py 1-3% occurs throughout the section.

FROM (Ft)	TO (Ft)	AVERAGE RECOVERY	DESCRIPTION
266.5'	271.7'	98%	Altered diorite: dark green with light green spots or patches of altered material. It is fine grained and equigranular with up to 40% alteration, consisting of epidote, chlorite and minor hematite. - upper and lower contacts are irregular.
271.7'	408.8'	97%	Limestone (calcareous siltstone): identical to that mentioned previously (248.8'-266.5'). (Refer to description of 248.8'-266.5' section for angle to core axis of colour banding). Disseminated Py (1-3%) occurs throughout the section. 278.5'-283.5' - calcite and chlorite, veins and fractures, at 40° to core axis.

FROM (Ft)	TO (Ft)	AVERAGE RECOVERY	DESCRIPTION
			309.5'-309.8' - possible shear zone; broken limestone fragments in a soft, chloritic, pyritic and slightly graphitic gouge like material. 364.6'-368.2' - angular to subrounded, blocks and fragments of limestone, set in a very fine green argillitic groundmass.
408.8'	431'	98%	Altered monzonite: green to red-green, fine grained and porphyritic. Phenocrysts of feldspar, amphibole and biotite are subhedral to euhedral and 1-4 mm. in size. - Alteration is moderate to extensive, consisting of chlorite, epidote, hematite, and calcite.
431'	444'	97%	Altered syenite: red to pinkish-red, fine grained, with subhedral to euhedral phenocrysts of K-feldspar (0.2 cm - 1 cm), biotite (0.2 - 0.4 cm) and amphibole (0.2 - 0.4 cm). - Alteration (moderate-extensive) chlorite calcite with minor hematite and epidote. - Upper contact at 431' is a sharp fracture contact at 40° to core axis. - Lower contact is broken
444'	445.5'	97%	Altered monzonite: identical to that mentioned previously in section 408.8' to 431'.
445.5'	451'	97%	Altered syenite: similar to that mentioned previously (431'-444') with the exception of an increase in mafic phenocryst size. (Biotite & amphibole 0.2 cm - 1.2 cm). - Upper contact at 445.5' is sharp at 60° to core axis.
451'	464'	97%	Altered monzonite: identical to that mentioned previously (408.8'-431').

FROM (Ft)	TO (Ft)	AVERAGE RECOVERY	DESCRIPTION
464'	479'	97%	Limestone (calcareous siltstone): identical to those mentioned previously (248.8'-266.5') and (221.7'-408.8') 464' - colour banding at 55^{o} to core axis.

APPENDIX D

DIAMOND DRILL HOLE

LOG SK-27-84

DIAMOND DRILL HOLE

LOG SK-27-84

FROM (Ft)	TO (Ft)	AVERAGE RECOVERY	DESCRIPTION
0'	1'		Casing.
1'	10.5'	94%	Skarn: green-grey with emerald green bands and swirls. Very fine grained, highly altered (65% or more) with epidote, chlorite, minor hematite and kaolin. Contains 1-3% disseminated and banded pyrite.
10.5'	21.6'	97%	Diorite: green to mottled dark green and grey. Fine grained, and slightly porphyritic with phenocrysts of plagioclase ? feldspar and augite ? amphibole all less than 1 cm in size. - Alteration: minor, epidote and chlorite.
21.6'	27'	97%	Skarn: identical to that mentioned earlier (1'-10.5').
27'	49.4'	97%	Altered sharpstone conglomerate and tuffite: blue grey to grey and dark grey to black fragments (0.5-10 cm), set in a very fine grained, grey to brown matrix. Discernable fragment types are: 1. Calcareous siltstone 2. Dark grey to black, fine grained felsic tuff, containing minor amounts of quartz eyes. Alteration: consisting of chlorite and epidote is generally minor, but can be pervasive in sections. 34'-39': - 4-5% coarse and finely disseminated pyrite. 39'-44': - 2-4% coarse and finely disseminated pyrite.

49.4'	53'	97%	Limestone Bx: light to dark grey angular to subrounded blocks (2-15 cm) of very fine grained, laminated to massive calcareous siltstone and silty limestone, which create a mosaic (breccia) fabric. These blocks are set in a green-black, very fine grained, often graphitic and slightly pyritic matrix.
53'	65.9'	97%	Fsp. Porphyry (diorite ?): green, spotted with white blebs and laths of feldspar phenocrysts ($<$ 1.2 cm), which are set in a very fine grained, green-grey matrix.
65.9'	71.6'	97%	Limestone Bx.: identical to that mentioned previously (49.4'-53'). 68.6'-70.4': - soft broken and granulated graphitic zone. Possibly a shear or fault zone. Upper contact is at 60^{o} to core axis. Lower contact is at 65^{o} to core axis.
71.6'	73.5'	97%	Banded argillite (calcareous): grey-black, finely banded, graphitic, calcareous silt and clay. - Pyrite (10-15%), disseminated and very finely banded. - Banding is at 50^{o} to core axis.
73.5'	148'	97%	Limestone Bx: - light to dark grey, angular to subrounded blocks (2-15 cm) of very fine grained, laminated to massive calcareous siltstone and silty limestone, which form a mosaic (breccia) fabric. The blocks are set in a black very fine grained, graphitic and somewhat calcareous matrix. - Pyrite (2-5%) is disseminated throughout the matrix.

APPENDIX E

ASSAY RESULTS

DIAMOND DRILL HOLE SK - 24 -84

Sample #	from	to (ft)	length	Sample Results Au gm/tonne	Ag gm/tonne
0592	10	15	5	.07	0.2
0593	15	20	5	.07	0.2
0594	20	23.5	3.5	.07	0.2
0595	23.5	27	3.5	.07*	0.2
0596	27	32	5	.07	0.2
0597	32	37	5	.07*	0.2
0598	37	42	5	.07	0.2
0599	42	47	5	.07	0.2
0600	47	52.1	5.1	.07	0.2
0601	52.1	57	4.9	.07	0.2
0602	57	62	5	.07	0.2
0603	62	65.2	3.2	.07*	0.2
0604	65.2	70	4.8	.07*	0.2
0605	70	75.2	5.2	.07*	0.2
0606	75.2	80	4.8	.07*	0.2
0607	80	85	5	.07	0.2
0608	85	91	6	.07	0.2
0609	91	95.6	4.6	.07	0.2
0610	95.6	102.3	6.7	.07	0.2
0611	102.3	107	4.7	.07	0.2
0612	107	112	5	.07	0.2
0613	112	117	5	.07*	0.2
0614	117	122	5	.07*	0.2
0615	122	126.8	4.8	.07*	0.2
0616	126.8	128	1.2	.07*	1.4
0617	128	133	5	.07*	0.2
0618	133	138	5	.07*	0.6
0619	138	143	5	.07*	0.4
0620	143	148	5	.07*	0.4

* Sample was assayed at Bondar - Clegg

DIAMOND DRILL HOLE SK 25 - 84

Sample #	from	to (ft)	Length	Sample Results Au gm/tonne	Ag gm/tonne
0621	2	4.3	2.3	.07*	0.2
0622	4.3	8.6	4.3	.07*	0.2
0623	8.6	15	6.4	.07	0.2
0624	15	16.8	1.8	.07	0.6
0625	16.8	21.8	5	.07*	0.2
0626	21.8	26.8	5	.07	0.2
0627	26.8	31.6	4.8	.07	0.2
0628	31.6	35.3	3.7	.07*	0.4
0629	35.3	40.3	5	.07*	0.2
0630	40.3	45.3	5	.07*	0.2
0631	45.3	50.3	5	.07*	0.2
0632	50.3	55.3	5	.07*	0.2
0633	55.3	60.3	5	.07	0.2
0634	60.3	63	2.7	.07	0.2
0635	63	64.5	1.5	.07*	0.2
0636	64.5	69.5	5	.07*	0.2
0637	69.5	74.5	5	.07*	0.2
0638	74.5	79.5	5	.07	0.2
0639	79.5	84.5	5	.07	0.2
0640	84.5	90	5.5	.07	0.2
0641	90	96.2	6.2	.07	0.2
0642	96.2	101.2	5	.07	0.4
0643	101.2	106.2	5	.07	0.2
0644	106.2	111.6	5.4	.07	0.2
0645	111.6	116.6	5	.07*	0.2
0646	116.6	121.6	5	.07	0.4
0647	121.6	126.6	5	.07	0.2
0648	126.6	131.6	5	.07	0.4
0649	131.6	136.6	5	.07	0.2
0650	136.6	141.6	5	.07	0.2
0651	141.6	146.6	5	.07	0.4
0652	146.6	152.5	5.9	.07*	0.4

* Sample was assayed at Bondar - Clegg

SK - 25 - 84 (continued)

Sample #	From	to (ft)	Length (ft)	Sample Results Au gm/tonne	Ag gm/tonne
0653	152.5	155	2.5	.07*	0.4
0654	155	163	8	.07*	0.2
0655	163	168	5	.07*	0.2
0656	168	173	5	.07	0.2
0657	173	178	5	.07	0.2

* Sample was assayed at Bondar - Clegg

DIAMOND DRILL HOLE SK-27-84

Sample #	from	to (ft)	Length (ft)	Sample Results Au gm/tonne	AG gm/tonne
0658	34	39	5	,07	0.8
0659	39	44	5	.07	0.6
0660	70.9	75.9	5	.07	0.6

DIAMOND DRILL HOLE SK - 26 - 84

Sample #	from	to (ft)	Length (ft)	Sample Results Au gm/tonne	Ag gm/tonne
0501	15	20	5	.41*	0.8
0502	20	25	5	.07	0.4
0503	25	30	5	.07	0.4
0504	30	35	5	.07	0.6
0505	35	41	6	.07*	0.6
0506	41	44.6	3.6	1.25*	1.6
0507	44.6	49.6	5	.07	0.4
0508	49.6	54.6	5	.07	0.2
0509	54.6	69.6	5	.07	0.2
0510	59.6	64.6	5	.07	0.2
0511	64.6	69.6	5	.07	0.2
0512	69.6	74.6	5	.07	0.2
0514	79.6	84.6	5	.07	0.2
0515	84.6	89	4.4	.07*	0.2
0516	89	93.6	4.6	4.96*	2.2
0517	93.6	98.6	5	.89*	0.4
0518	98.6	103.6	5	.07	0.2
0519	103.6	108.6	5	.07	0.4
0520	108.6	113.6	5	.07	0.2
0521	113.6	118.6	5	.07	0.6
0522	118.6	123.6	5	.07	0.2
0523	123.6	128.6	5	.07*	0.4

* Sample was assyaed at Bondar - Clegg

SK 26-84 (continued)

Sample #	from	to (ft)	Length (ft)	Sample Results Au gm/tonne	Ag gm/tonne
0524	128.6	133.6	5	.07*	0.4
0525	133.6	138.6	5	.07*	0.4
0526	138.6	143.6	5	.75*	0.8
0527	143.6	148.6	5	.07	0.2
0528	148.6	153.6	5	.07	0.4
0529	153.6	158.6	5	.07	0.4
0530	158.6	163.6	5	.07*	0.6
0531	163.6	168.6	5	.27*	0.4
0532	168.6	173.6	5	.07*	0.6
0533	173.6	178.6	5	.58*	0.6
0534	178.6	186	7.4	.07*	0.2
0585	186	191	5	.07*	0.2
0536	191	196	5	.07*	0.2
0537	196	201	5	1.51*	1.0
0538	201	208	7	.45*	0.8
0539	208	213	5	1.34*	1.6
0540	213	217.5	4.5	0.14*	0.4
0541	217.5	223	5.5	3.53*	0.4
0542	223	228	5	0.07*	0.2
0543	228	233	5	0.21*	0.4
0544	233	238	5	0.34*	0.6
0545	238	243.8	5.8	.07*	0.4
0546	243.8	248.8	5	0.14*	0.4
0547	248.8	253.8	5	.07*	0.2
0548	253.8	258.8	5	.07*	0.2
0549	258.8	266.5	7.7	.07*	0.2
0550	266.5	271.7	5.2	.07*	0.4
0551	271.7	273.5	1.8	.07*	0.2
0552	273.5	278.5	5	.07	0.2
0553	278.5	283.5	5	.07	0.2
0554	283.5	288.5	5	.07	0.2

* Sample was assayed at Bondar Clegg

SK 26 - 84 (continued)

Sample #	From	To (ft)	Length	Sample Results Au gm/tonne	AG gm/tonne
0555	288.5	293.5	5	.07	0.2
0556	293.5	299.2	6.7	.07*	0.2
0557	299.2	303.5	4.3	.07	0.2
0558	303.5	308.5	5	.07	0.2
0559	308.5	313.5	5	0.07*	0.2
0560	313.5	319	5.5	.07*	0.2
0561	319	324	5	.07	11.0
0562	324	329	5	.07	0.6
0563	329	334	5	.07	0.2
0564	334	339	5	.07	0.2
0565	339	344	5	.07	0.4
0566	344	349	5	.07*	0.2
0567	349	354	5	.07	0.4
0568	354	359	5	.07	0.6
0569	359	364.6	5.6	.07	0.2
0570	364.6	368.2	3.6	.07*	0.4
0571	368.2	373.2	5	.07	0.2
0572	373.2	378.2	5	.07	0.2
0573	378.2	383.2	5	.07	0.2
0574	383.2	388.2	5	.07	1.4
0575	388.2	393.2	5	.07	0.2
0576	393.2	398.2	5	.07	0.8
0577	398.2	403.2	5	.07	0.6
0578	403.2	408.8	5	.07*	0.2
0579	408.8	414	5.2	.07	0.4
0580	414	419	5	.07	0.4
0581	419	425	5	.07	0.2
0582	425	431	6	.07	0.2
0583	431	438	7	.07	0.2
0584	438	444	6	.07	0.2
0585	444	451	6	.07	0.4

* Sample was assayed at Bondar - Clegg

SK 26 - 84 Continued

Sample #	From	To (ft)	Length (Ft)	Sample Results Au gm/tonne	Ag gm/tonne
0586	451	455	4	.07	0.4
0587	455	459	4	.07	0.4
0588	459	464	5	.07	0.6
0589	464	469	5	.07	0.8
0590	469	474	5	.07	0.4
0591	474	479	5	.07	0.6

* Sample was assyaed at Bondar - Clegg

APPENDIX F

STATEMENT OF COSTS

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

DATE JUNE 1984

PROJECT - GREENWOOD I
TYPE OF REPORT Geophysics

a) **Wages:**

No. of Days -	18 mandays	
Rate per Day -	$149.89	
Dates From -	March - May 1984	
Total Wages	18 X $149.89	$2,698.02

b) **Food and Accommodation:**

No. of Days -	18	
Rate per Day -	$82.99	
Dates From -	March - May 1984	
Total Cost -	18 X $82.99	$1,493.89

c) **Transportation:**

No. of Days -	18	
Rate per Day -	$49.38	
Dates From -	March - May 1984	
Total cost	18 X $49.38	$ 888.84

d) Cost of Preparation of Report

Author	$ 449.67
Drafting	$ 149.89
Typing	$ 149.89

f) Other:

Supervision	$ 600.00

Total Cost	$6,430.20

UNIT COSTS

Unit Costs for Geophysics

No. of Days -	18	
No. of Units -	.975 Kilometers	
Unit Costs -	6,595.08 / Kilometer	
Total cost	.975 X 6,595.08	$6,430.20

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

DATE JUNE 1984

PROJECT - GREENWOOD I
TYPE OF REPORT Drilling

a) **Wages:**

No. of Days -	23 mandays	
Rate per Day -	$114.77	
Dates From -	March - June 1984	
Total Wages	23 X $114.77	$2,639.78

b) **Food and Accommodation:**

No. of Days -	23	
Rate per Day -	$87.56	
Dates From -	March - June 1984	
Total Cost -	23 X $87.56	$2,013.91

c) **Transportation:**

No. of Days -	23	
Rate per Day -	$8.89	
Dates From -	March - June 1984	
Total cost	23 X $8.89	$ 204.58

d) Analysis	$1,653.50

e) Cost of Preparation of Report

Author	$ 229.54
Drafting	$ 114.77
Typing	$ 114.77

f) Other:

Contractor	$19,854.68

Total Cost	$26,825.53

UNIT COSTS

Unit Costs for Drilling

No. of Days -	23	
No. of Units -	290.47 Metres	
Unit Costs -	92.35 / Metre	
Total cost	290.47 X 92.35	$26,825.53

NORANDA EXPLORATION COMPANY, LIMITED

DETAILS OF ANALYSES COSTS

Project: GREENWOOD I

Element	No. of Determinations	Cost per Determination	Total
Ag	160	1.60	256.00
Au	86	4.00	344.00
Au	74	7.50	555.00
Sample Prepartation	86	3.00	258.00
" "	74	3.25	240.50
TOTAL COST			$1,653.50

APPENDIX G

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, John Keating of the City of Vancouver, Province of British Columbia, do hereby certify that:

I am a resident of British Columbia, residing at 1877 West 5th. Avenue.

I am a graduate of Concordia University, Montreal, with a Bachelor of Science Degree in Geology.

I am a member in good standing with the Canadian Institute of Mining and Metallurgy.

I have been a temporary employee with Noranda Exploration Company, Limited since May, 1979 and a permanent employee since March, 1983.

John Keating

Project Geologist

Noranda Exploration Company

Limited(No Personal Liability)

STATEMENT OF QUALIFICATIONS

I, Lyndon C. Bradish of the City of Vancouver, Province of British Columbia, do certify that:

1. I have been an employee of Noranda Exploration Company, Limited since May 1973.

2. I am a graduate of the University of British Columbia with a Bachelor of Science Degree in Geophysics.

3. I am a member of the Canadian Institute of Mining and Metallurgy.

4. I am a member of the Society of Exploration Geophysicists.

5. I have held the position of Geophysicist for Noranda Exploration Company, Limited since May 1973.

L. Bradish

L.C. Bradish
Division Geophysicist
Noranda Exploration Company, Limited
(No Personal Liability)

MAG.
FIELD : Total
DATUM : 57,000γ
SCALE : 1" = 200γ

VLF-EM
TX : Hawaii
SCALE : 1" = 20°

MISE A LA MASSE
SCALE : 1" = 400 mv

LEGEND

ARRAY ______ Dipole - Dipole
FREQUENCY ______ 4 Hz & 25 Hz
a ______ 100'
CONTOUR MULTIPLES ______ 1.0, 1.5, 3.0, 5.0, 7.5
ρa/2π ______ In units of Ω Ft.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,030 PART 1 OF 2

0 — 12 m

REVISED	SYLVESTER
	GEOCOMPILATION L. 205+00 N
PROJ. No. 1066	SURVEY BY: ...... DATE: May-June, 1983
N.T.S. 82 E-2	DRAWN BY: L. Bradish , W.M.R. SCALE: 1" = 100' 1:1200
DWG. No. 1	NORANDA EXPLORATION OFFICE: Vancouver

MAG.
FIELD : Total
DATUM : 57,000γ
SCALE : 1" = 200γ

VLF
TX : Hawaii
SCALE : 1" = 20°

LEGEND

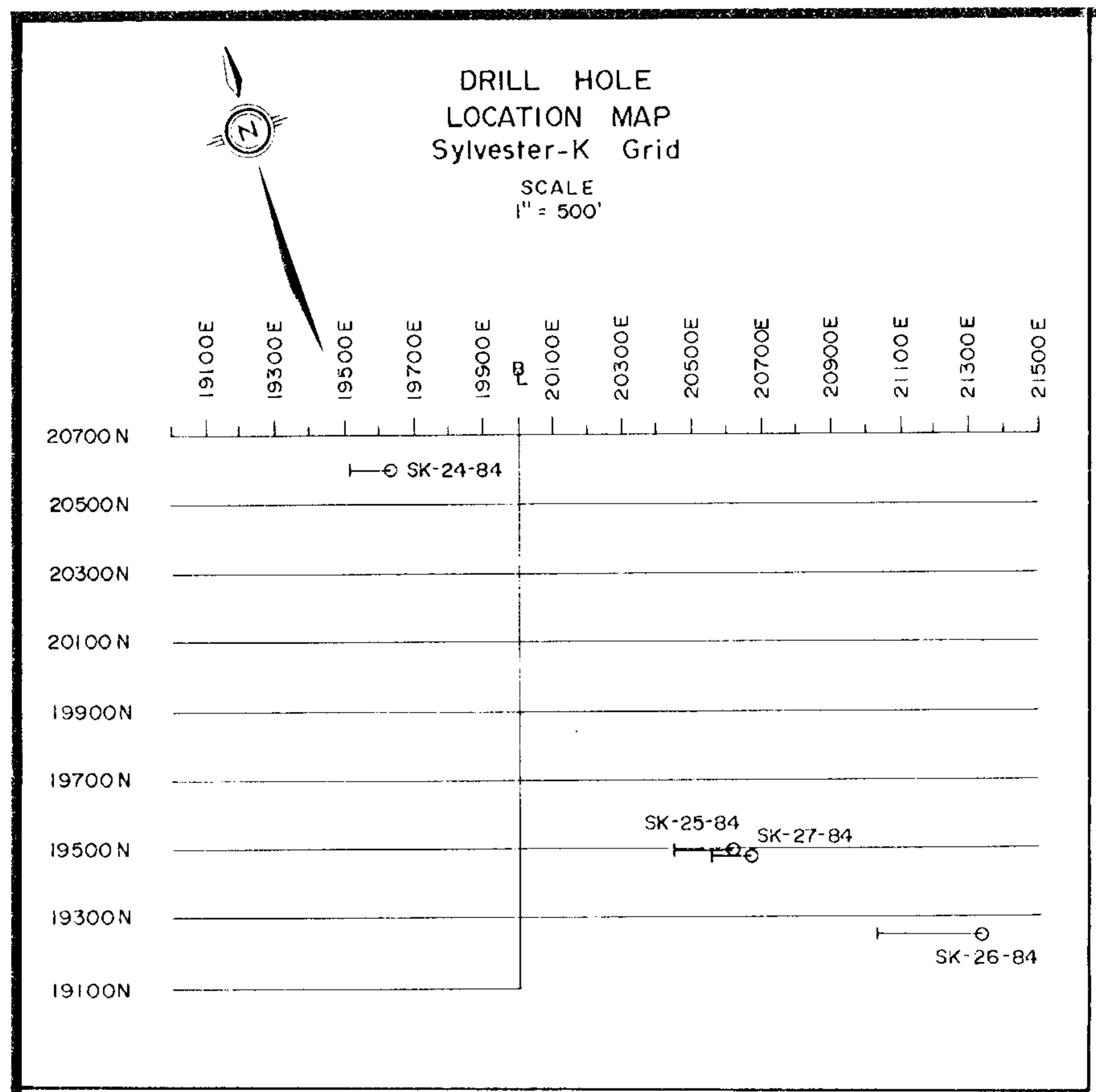
ARRAY ____ Dipole – Dipole
FREQUENCY ____ 4 Hz & .25 Hz
a ____ 100'
CONTOUR MULTIPLES ____ 1.0, 1.5, 3.0, 5.0, 7.5
ρa/2π ____ In units of Ω Ft.

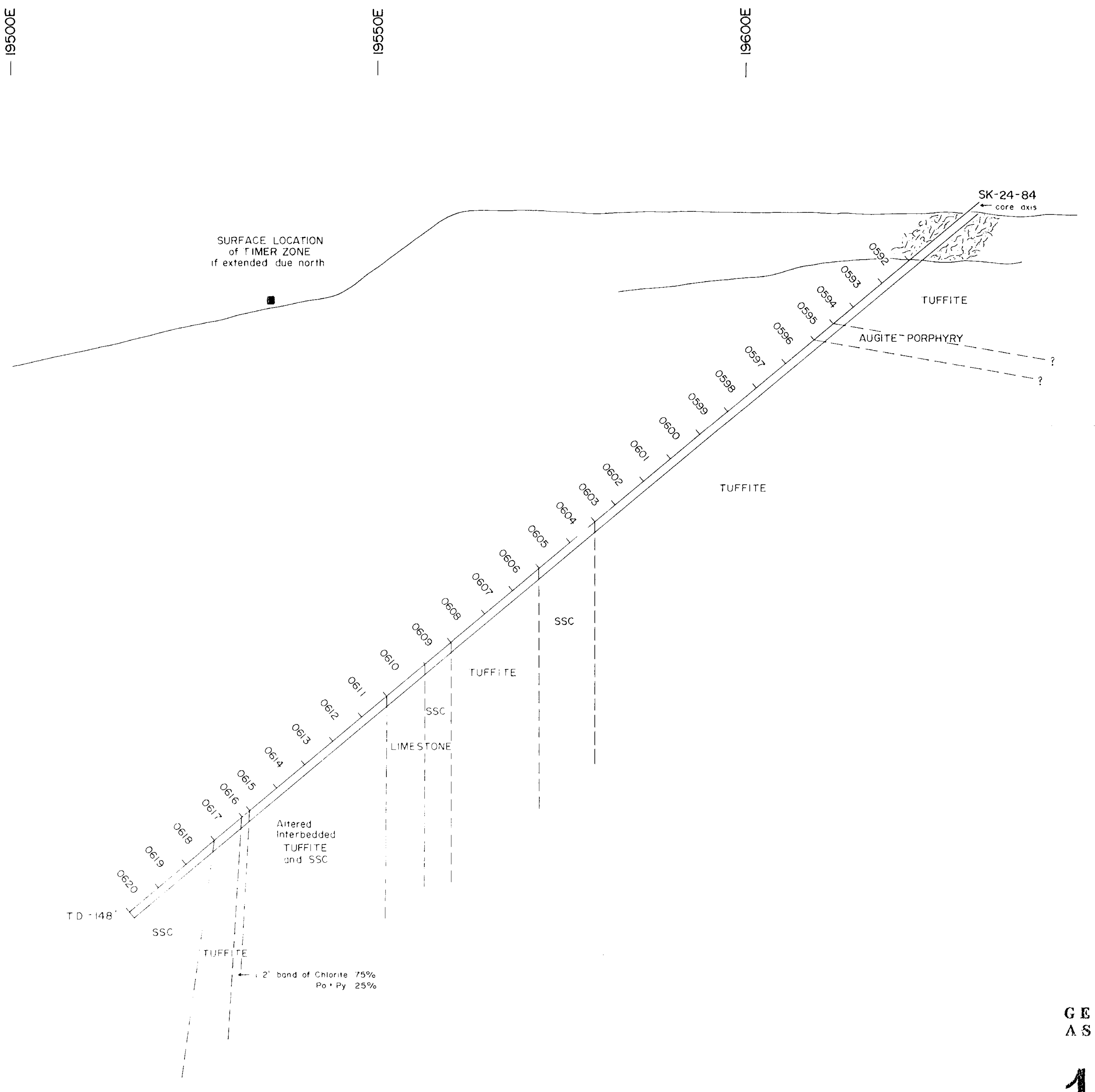
GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,030 PART 1 OF 2

0 ⟶ 12 m

REVISED	SYLVESTER 'K'
	I.P. SURVEY LINE 195 N.
PROJ. No 28	SURVEY BY K.L., L.B. & B.K. DATE: March/84
N.T.S. 82 E/2	DRAWN BY [illegible] SCALE: 1 inch = 100' 1:1200
DWG. No 2	NORANDA EXPLORATION OFFICE Vancouver





LEGEND

TRIASSIC BROOKLYN FORMATION

- TUFFITE – Green to grey; massive with tuffaceous to lapilli size felsic and minor crystal fragments. May contain 2-3% disseminated and veined Py.
- SHARPSTONE CONGLOMERATE (S.S.C.) – Green-grey; massive with angular to subround lapilli size felsic and chloritic fragments. May contain up to 3% disseminated and veined Py.
- LIMESTONE – White to grey, massive and finely crystalline.

INTRUSIVES (AGES UNKNOWN)

- AUGITE PORPHYRY – Mottled dark green and grey, fine to medium grained diorite, containing phenocrysts of augite and plagioclase; <3% Py, finely disseminated.

SYMBOLS

- Geological Contact Derived from angles to core axis.
- 0582 Sample Interval and Number
- Overburden
- Py - Pyrite
- Po - Pyrrhotite

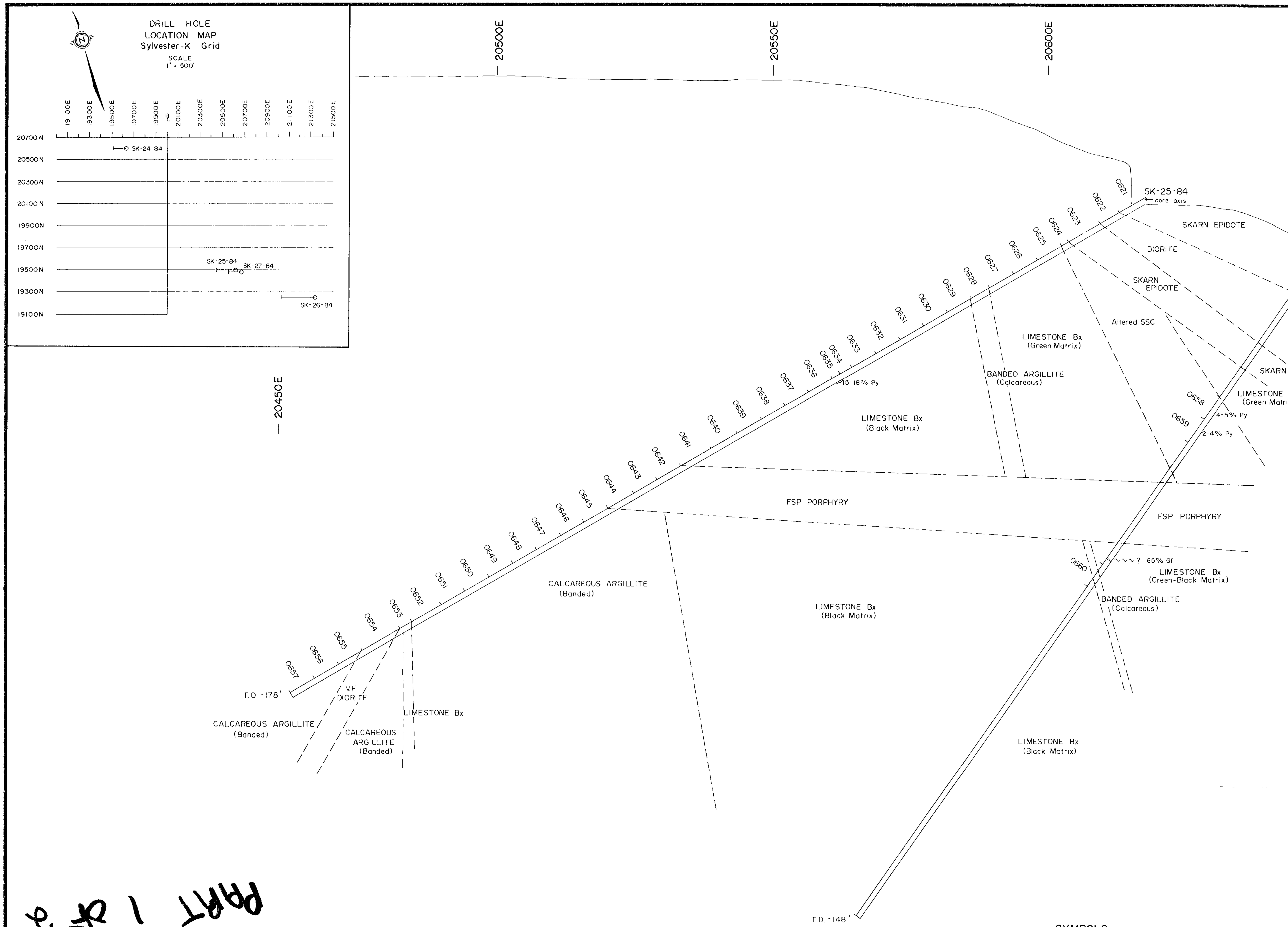
GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,030 PART 1 OF 2

SCALE 1" = 10'

10 5 0 10 20 30 40 feet

REVISED	SYLVESTER K
	DDH SK-24-84
	GREENWOOD I GROUP
PROJ. No. 28	SURVEY BY: J.Keating DATE: 84-04-25
N.T.S. 82 E 2	DRAWN BY: sksLittle SCALE: 1:120
DWG. No. 3	NORANDA EXPLORATION
	OFFICE: Vancouver



LEGEND

TRIASSIC BROOKLYN FORMATION

SKARN (CALC-SILICATE)	– Green-grey with emerald green bands and swirls. Very fine grained, highly altered (65% or more) with epidote, chlorite, minor hematite and kaolin.
Altered SHARPSTONE CONGLOMERATE (S.S.C.)	– Blue-grey to grey and dark grey to black fragments (.5-10cm), set in a very fine grained, grey to brown matrix. Dominant fragments are: 1. Calcareous siltstone. 2. Dark grey to black, fine grained felsic tuff, containing minor amounts of quartz-eyes. Alteration (minor): chlorite and kaolin.
LIMESTONE Bx	– Light to dark grey, angular to sub-rounded blocks (2-15cm) of very fine grained, laminated to massive calcareous siltstone and silty limestone, which create a mosaic (breccia) fabric. Matrix may be green +/or black. GREEN MATRIX – Silicious to slightly calcareous clay. BLACK MATRIX – Calcareous, often graphitic and pyritic clay.
CALCAREOUS ARGILLITE	– Grey-black, thinly banded calcareous pyritic silt and clay, often graphitic.

INTRUSIVES (AGES UNKNOWN)

DIORITE	– Green to mottled dark green and grey. Fine grained and slightly porphyritic with phenocrysts (<1cm) of plagioclase and augite, slightly altered with chlorite and epidote.
FSP PORPHYRY (DIORITE)	– Green, spotted with white blebs and laths of feldspar phenocrysts (<1.2cm) set in a very fine grained green-grey matrix.

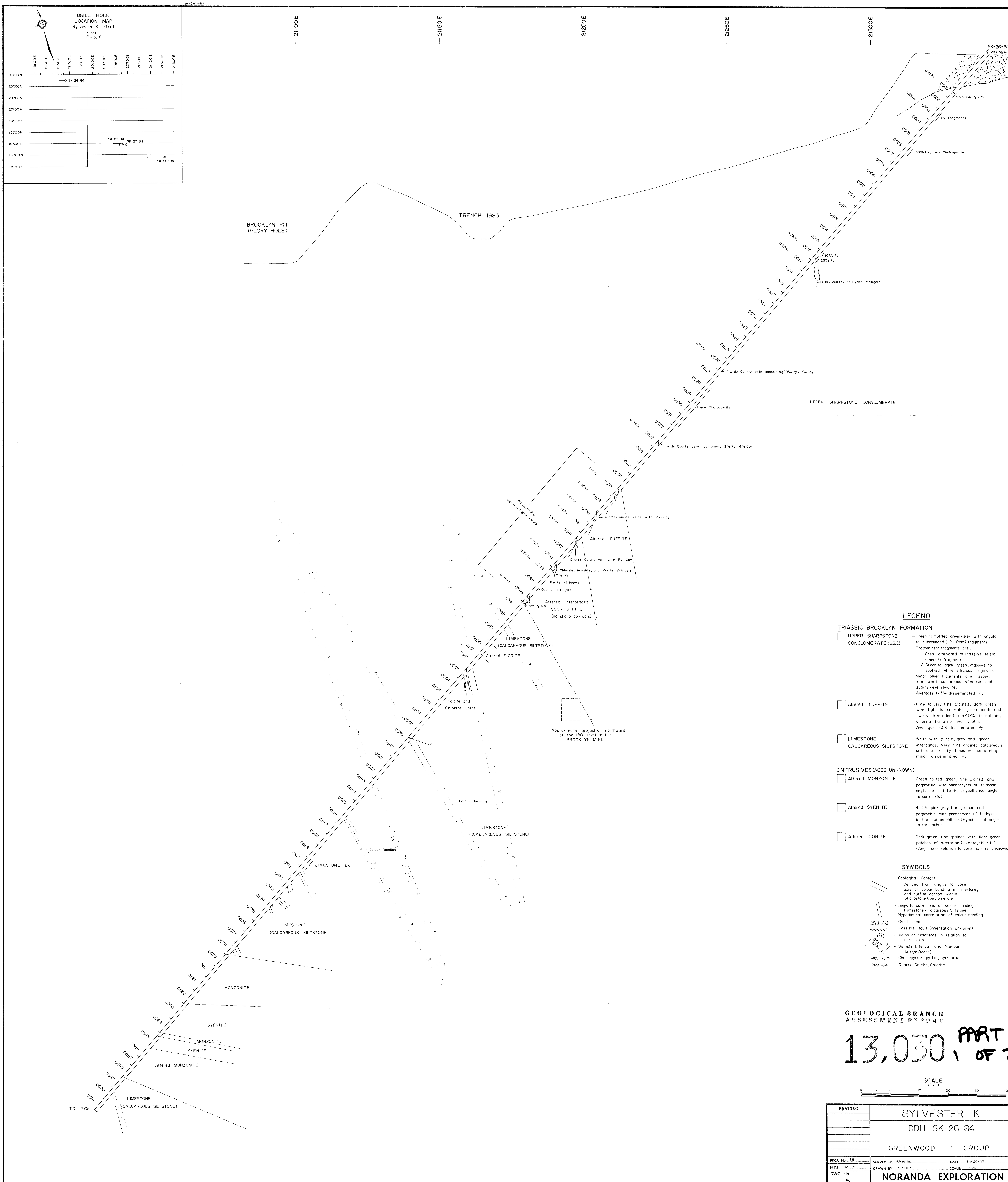
SCALE
1" = 10'
10 5 0 10 20 30 40feet

SYMBOLS

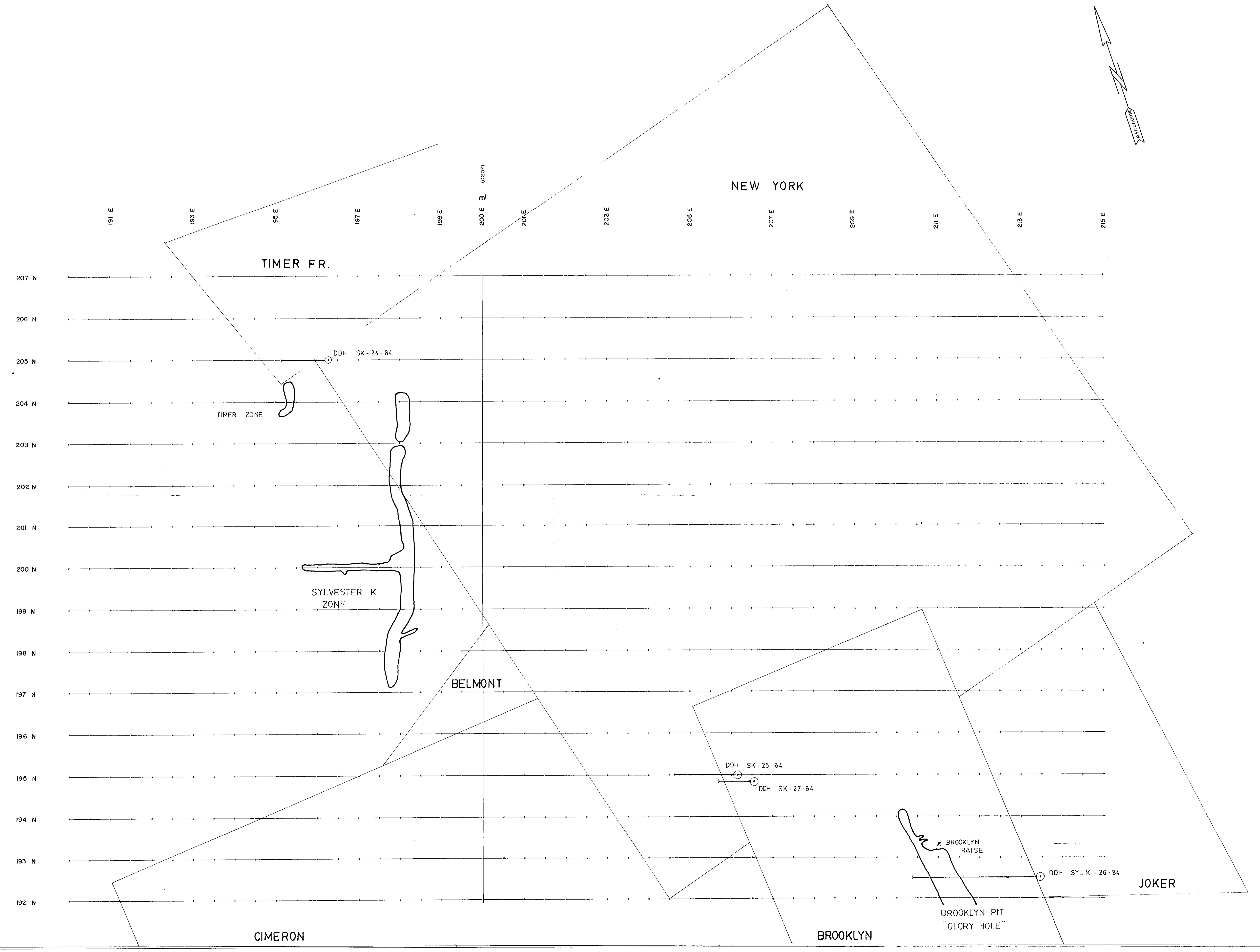
- Geological Contact — Derived from angles to core axis and hole correlations.
- 0600 — Sample Interval and Number
- Py — Pyrite
- ? — Possible fault

REVISED	
	SYLVESTER K
	DDH SK-25-84
	DDH SK-27-84
	GREENWOOD I GROUP
PROJ. No. 28	SURVEY BY: J. Keating DATE: 84-04-24
N.T.S. 82 E 2	DRAWN BY: sksLittle SCALE: 1:120
DWG. No. 4	NORANDA EXPLORATION
	OFFICE: Vancouver

VANCAL - 6323



DRILL HOLE LOCATION MAP
Sylvester-K Grid
SCALE 1" = 500'
SK-24-84
SK-25-84
SK-27-84
SK-26-84
21100E
21150E
21200E
21250E
21300E
21350E
SK-26-84
BROOKLYN PIT (GLORY HOLE)
TRENCH 1983
15-20% Py + Po
Py Fragments
10% Py, trace Chalcopyrite
10% Py
25% Py
Calcite, Quartz, and Pyrite stringers
1" wide Quartz vein containing 20% Py + 2% Cpy
Trace Chalcopyrite
UPPER SHARPSTONE CONGLOMERATE
1" wide Quartz vein containing 2% Py + 4% Cpy
Quartz-Calcite veins with Py + Cpy
Altered TUFFITE
Quartz-Calcite vein with Py + Cpy
Chlorite, Hematite, and Pyrite stringers
20% Py
Pyrite stringers
Quartz stringers
Altered Interbedded SSC + TUFFITE (no sharp contacts)
25% Py, Qtz
LIMESTONE (CALCAREOUS SILTSTONE)
Altered DIORITE
Calcite and Chlorite veins
Approximate projection northward of the 150 level, of the BROOKLYN MINE
Colour Banding
LIMESTONE (CALCAREOUS SILTSTONE)
LIMESTONE Bx
LIMESTONE (CALCAREOUS SILTSTONE)
MONZONITE
SYENITE
MONZONITE
SYENITE
Altered MONZONITE
LIMESTONE (CALCAREOUS SILTSTONE)
T.D. - 479'
LEGEND
TRIASSIC BROOKLYN FORMATION
UPPER SHARPSTONE CONGLOMERATE (SSC) – Green to mottled green-grey with angular to subrounded (.2-10cm) fragments. Predominent fragments are: 1. Grey, laminated to massive felsic (chert?) fragments. 2. Green to dark green, massive to spotted white silicious fragments. Minor other fragments are jasper, laminated calcareous siltstone and quartz-eye rhyolite. Averages 1-3% disseminated Py.
Altered TUFFITE – Fine to very fine grained, dark green with light to emerald green bands and swirls. Alteration (up to 40%) is epidote, chlorite, hematite and kaolin. Averages 1-3% disseminated Py.
LIMESTONE CALCAREOUS SILTSTONE – White with purple, grey and green interbands. Very fine grained calcareous siltstone to silty limestone, containing minor disseminated Py.
INTRUSIVES (AGES UNKNOWN)
Altered MONZONITE – Green to red green, fine grained and porphyritic with phenocrysts of feldspar amphibole and biotite. (Hypothetical angle to core axis.)
Altered SYENITE – Red to pink-grey, fine grained and porphyritic with phenocrysts of feldspar, biotite and amphibole. (Hypothetical angle to core axis.)
Altered DIORITE – Dark green, fine grained with light green patches of alteration; (epidote, chlorite) (Angle and relation to core axis is unknown.)
SYMBOLS
- Geological Contact
Derived from angles to core axis of colour banding in limestone, and tuffite contact within Sharpstone Conglomerate.
- Angle to core axis of colour banding in Limestone / Calcareous Siltstone
- Hypothetical correlation of colour banding.
- Overburden
- Possible fault (orientation unknown)
- Veins or fractures in relation to core axis.
- Sample Interval and Number Au (gm/tonne)
Cpy, Py, Po - Chalcopyrite, pyrite, pyrrhotite
Qtz, CC, Chl - Quartz, Calcite, Chlorite
GEOLOGICAL BRANCH ASSESSMENT REPORT
13,030, PART 1 OF 2
SCALE 1" = 10'
10 5 0 10 20 30 40 feet
REVISED
SYLVESTER K
DDH SK-26-84
GREENWOOD I GROUP
PROJ. No. 28
N.T.S. 82 E 2
DWG. No. 5
SURVEY BY: J. Keating
DATE: 84-04-27
DRAWN BY: sks Lillie
SCALE: 1:120
NORANDA EXPLORATION
OFFICE: Vancouver

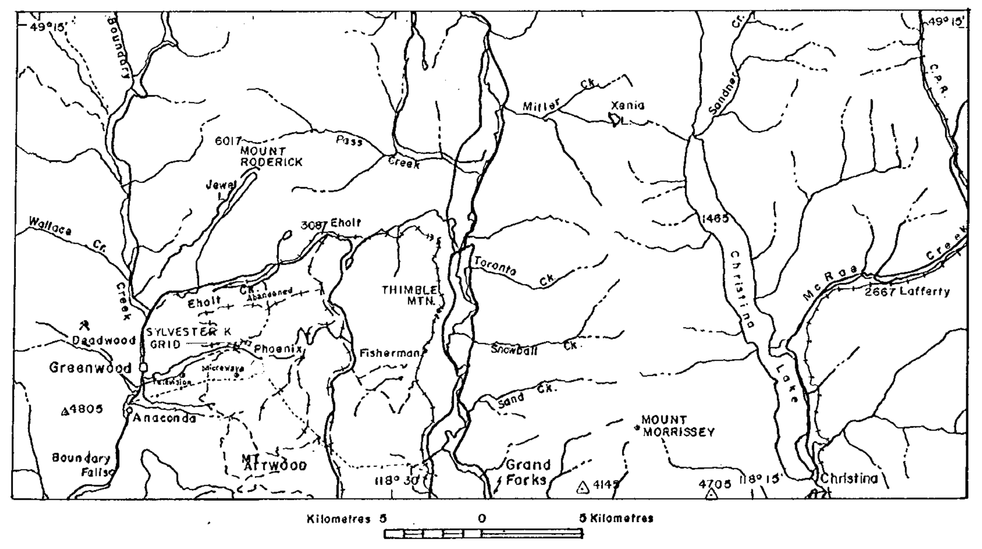


GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,030

PART 1 OF 2

LOCATION MAP
(82 E – 1:250,000)



SCALE
(1" = 100')
100 50 0 100 200 300 400 500 Feet

REVISED	'SYLVESTER' GRID
	GREENWOOD I GROUP
	(DRILL HOLE & CLAIM LOCATION)
PROJ. No. 1066	SURVEY BY: JK DATE: APRIL 1984
N.T.S. 82E-2	DRAWN BY: W.M. SCALE: 1" = 100'
DWG. No. 6	NORANDA EXPLORATION OFFICE: Vancouver


IRON KING
3279
PAL
3275
LAXEY
3242
RON
3273
BONNIE
3334
RON Fr.
3333
BARON Fr.
FILE Fr.
PIPE
3165
PIPE 4 Fr.
3169
PIPE
PIPE 1 Fr.
3166
PIPE 2 Fr.
3167
PIPE 3 Fr.
3168
BOBCAT #10
21764
BOBCAT #9
21763
BULLION Fr.
3171
BULLION
L865
MONTE CHRISTO Fr.
L 3381
GEM Fr.
3172
GIPSY
L1811
TIMER Fr.
L1705
SYLVESTER K Fr.
M289
NEW YORK
L901
CIMERON
L980
BROOKLYN
L796
JOKER
L1092
MONTEZUMA
L918
GILT EDGE
L977
49°06'
118°38'
0 100 500 m
GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,030
PART 1 OF 2
REVISED
GREENWOOD I GROUP
CLAIM MAP
PROJ. No.
N.T.S. 82 E / 2
DWG. No.
7
SURVEY BY: J.K.
DRAWN BY: S.L. , W.M.
DATE: APRIL , 1984
SCALE: 1: 10,000
NORANDA EXPLORATION
OFFICE: VANCOUVER