85-291-13628

Brinco
MINING LIMITED

EXPLORATION OFFICE
#704 - 602 WEST HASTINGS STREET, VANCOUVER, B.C., CANADA V6B 1P2

TELEPHONE: (604) 687-2557
TELEX: 04-508664

DRILLING AT CASSIAR MINE
1984 ASSESSMENT REPORT FOR THE TISH GROUP
LIARD MINING DIVISION
Claims: Tish, 1, 2, Fred 1-4, Goat 2,
Cirque 3, 4, Mineral Lease M2

N.T.S.: 104P/5
Latitude: 59°19'N
Longitude: 129°51'W
Author: I.A. Lyn

Owner and Operator:
Brinco Mining Limited

Date: April 1985

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APPENDICES

FIGURES

1.0 INTRODUCTION

This report describes the drilling of a 622 m diamond drill hole into the McDame Asbestos deposit at Cassiar. This is part of a continuing programme to define the deposit which was first discovered in 1980. The single intersection of this hole, 200 m from the nearest previous intersection in the McDame deposit, has considerably extended the known deposit.

2.0 LOCATION AND ACCESS

The Cassiar mine is located in northern British Columbia, 80 kilometers south of the Yukon border (Fig. 1). The terrain is mountainous and rugged, the mine being on the crest of a ridge at approximately 6000' elevation. Cassiar town lies on a valley floor 4.5 km south at 3600' elevation. It is linked to Highway 37 by a 14 km access road. The nearest town with scheduled air service is Watson Lake, 157 km by road from Cassiar.

Well maintained private roads connect the town to the pit. The site for Hole 84-1 was southeast of the pit area and a 488 m road was constructed over a waste tip to the drill site by mine personnel.

3.0 PROPERTY DEFINITION

The following claims form the Tish Group (Fig. 2):

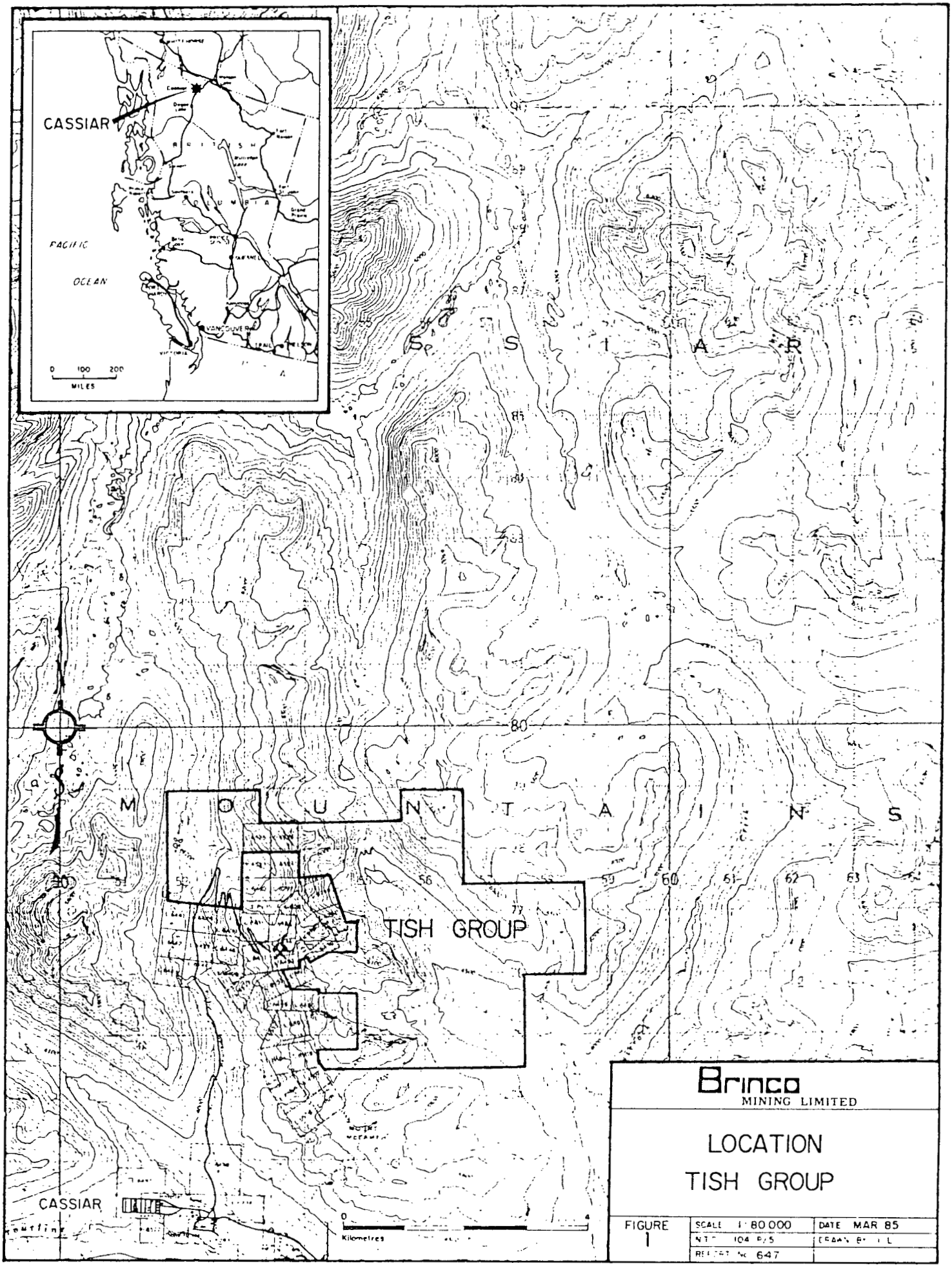
Claim Name	Record No.	Units	Area(ha)	Date Recorded
Tish 1	1341	18	450	August 3, 1984
Tish 2	1342	18	450	August 3, 1984
Fred 1	1291	12	300	May 28, 1980
Fred 2	1292	8	200	May 28, 1980
Fred 3	1293	18	450	May 28, 1980
Fred 4	1294	12	300	May 28, 1980

Crown Granted Mineral Claims:

Claim Name	Lot No.
Goat 2	6502
Cirque 4	6525
Cirque ?	6526

Mineral Leases:

Lease Name	Lot No.	Area(ha)	Date Recorded
M2	3161	242.14	August 23, 1977



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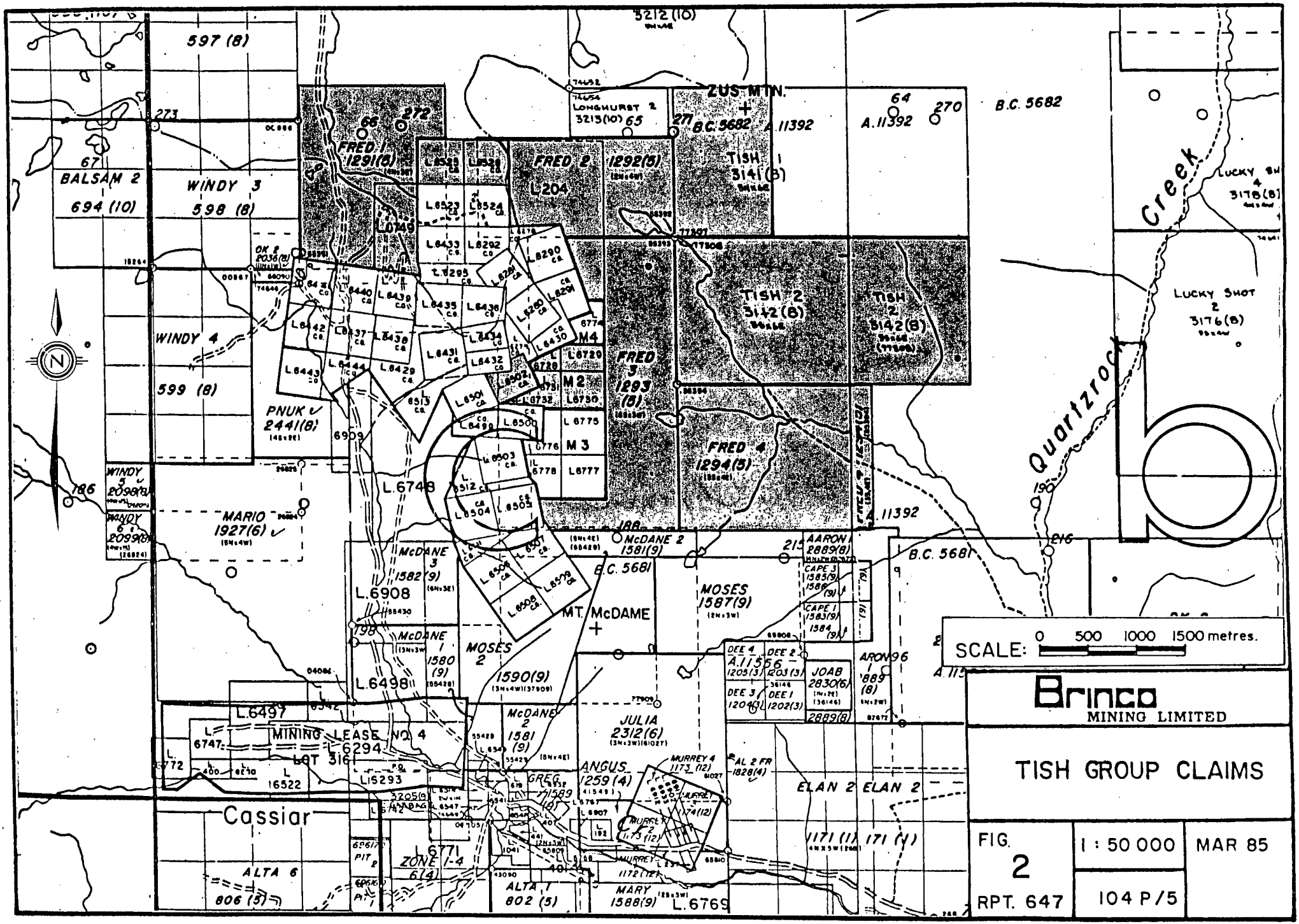
LOCATION
TISH GROUP

FIGURE 1	SCALE 1:80 000	DATE MAR 85
	NTS 104 P/5	DRAWN BY I L
	REPORT No 647	


597 (8)
BALSAM 2
694 (10)
WINDY 3
598 (8)
WINDY 4
599 (8)
PNUK
244 (8)
WINDY 5
2098(8)
WINDY 6
2099(8)
MARIO
1927(6)
FRED 1
1291(8)
FRED 2
1292(8)
L.204
FRED 3
1293
(8)
FRED 4
1294(5)
TISH
314 (8)
TISH 2
3142(8)
TISH 2
3142(8)
ZUS MTN.
LONGHURST 2
3213(10)
5212 (10)
B.C. 5682
A.11392
LUCKY SHOT 2
3176(8)
LUCKY SHOT 4
3178(8)
Quartzrock Creek
L.6748
L.6908
L.6498
L.6497
L.6294
L.6771
L.6769
M4
M2
M3
MT. McDAME
McDANE 1
1580 (9)
McDANE 2
1581 (9)
McDANE 3
1582 (9)
MOSES 1
1587(9)
MOSES 2
1590(9)
JULIA
2312(6)
ANGUS
1259 (4)
GREG
1589
AARON 1
2889(8)
AARON 2
2889(8)
JOAB
2830(6)
CAPE 1
1584 (9)
CAPE 3
1585(9)
DEE 1
1202(3)
DEE 2
1203(3)
DEE 3
1204(3)
DEE 4
A.11556
MINING LEASE NO 4
LOT 316
Cassiar
ALTA 6
806 (3)
ALTA 7
802 (5)
ZONE 1-4
6(4)
MARY
1588(9)
ELAN 2
1171 (11)
MURREY 1
1173 (12)
MURREY 2
1175 (12)
SCALE: 0 500 1000 1500 metres.
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TISH GROUP CLAIMS
FIG. 2
RPT. 647
1 : 50 000
104 P/5
MAR 85

4.0 PREVIOUS HISTORY

Asbestos ore has been mined at Cassiar since 1952. To the end of 1984 approximately 23 million tonnes of asbestos ore has been mined from the open pit to produce 2 million tonnes of fibre. The orebody in the pit is forecast to have approximately 5 years life remaining.

In 1980 a new deposit, called McDame, was discovered at depth southeast of the pit. Drilling in 1981 from an adit delineated part of the deposit (Pennock & Pratt, 1982), but it thickened and was open on its downdip extension. In 1983 airborne and ground magnetic surveys were done to detect the ultramafic body containing the asbestos ore. In 1984 Hole 84-1 was drilled to test the geophysical response.

5.0 PURPOSE OF DRILLING

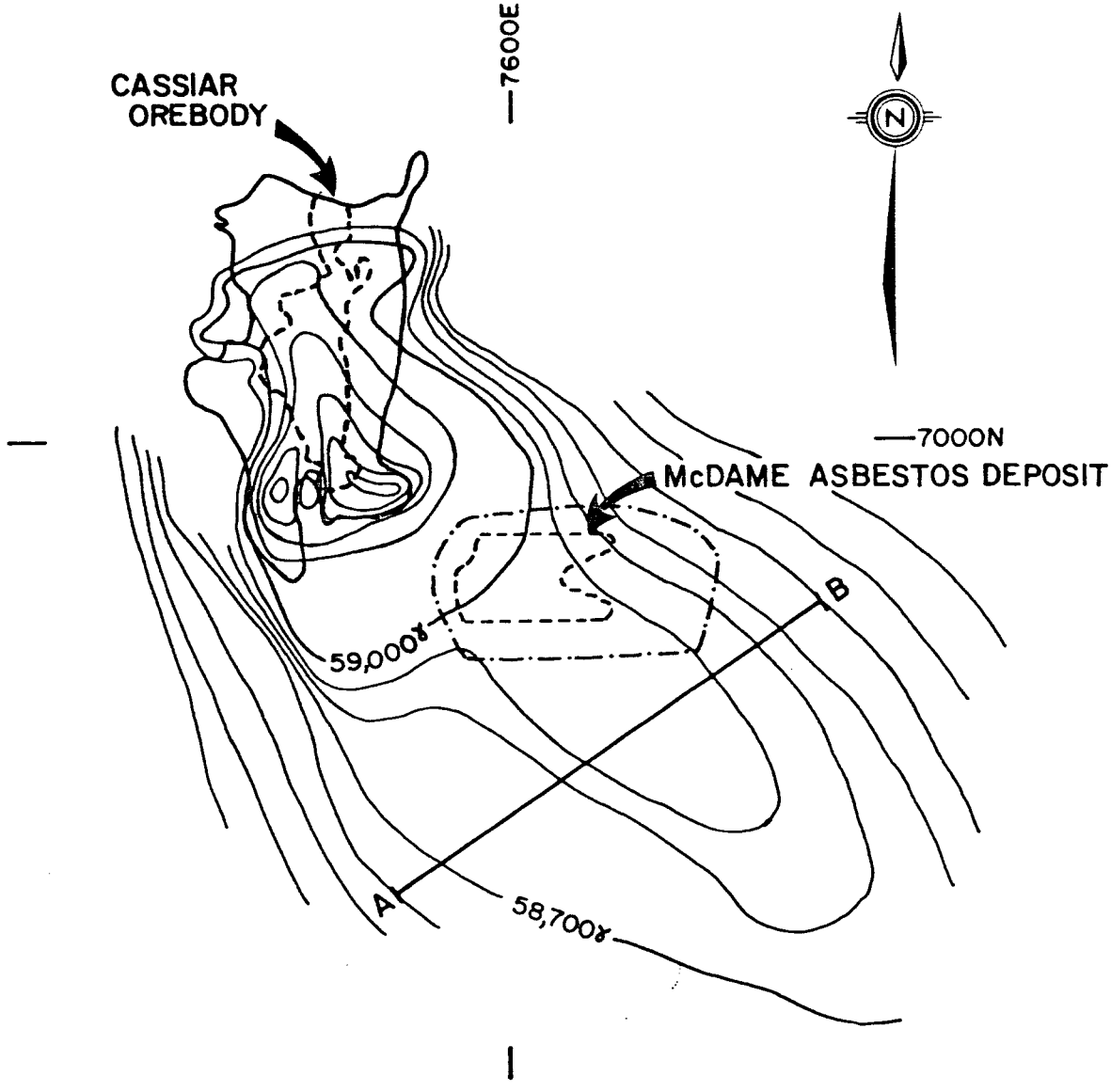
The magnetic surveys done in 1983 detected a strong response entirely due to the ultramafic host rock in the mine area. They are not being submitted for assessment but in general the results are as follows. The magnetic response extended considerably further southeast than the known extent of the McDame deposit (Fig. 3). Geophysical interpretation of the source was complicated by the effect of topography separating the sensor from the source. Possible interpretations were that there was a single large source, 300 m deep, plunging southeasterly or else that there were two, superimposed smaller sources (Fig. 4).

6.0 DRILL PROGRAMME

A 600 m drill programme was planned to test the magnetic response. This was to be 2 holes if a shallow source was encountered or a single hole if it was deeper. The site for the holes was restricted by the presence of a large coarse rock dump covering a cirque floor between precipitous ridges over the magnetic source. Based on the geophysical interpretation a site was selected on the south side of the dump at the foot of the cliffs, mine coordinates 21472 N, 25916 E, 5886' elevation (Fig. 5). An azimuth of 270° and dip of 78° were predicted to intersect the source at 300 m depth. A 488 m long road was constructed over the dump to the site by mine personnel.

D.W. Coates Ltd. of Richmond, B.C. were contracted to do the drilling.

The hole was drilled from July 21 to August 6. Mud with Alcomer or EZ mud were used as lubricant in the hanging wall rocks and Superpoly and at times Lub Tub (not easily available) used in serpentinite. This gave very clean cutting of the serpentinite with excellent core recovery. The hole was HQ size to 1333 ft. (406 m) and NQ below. Casing was left in the collar. It was stopped at 2042 ft. (622 m) as it was passing through



SCALE

0 360 metres

NOTE: Contours at 100γ intervals below the 59,000γ contour line, and 1000γ intervals above the 59,000γ contour line.

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DIAGRAM OF
GROUND MAGNETIC RESPONSE

FIG. 3	SCALE 1:6000	DATE MAR 85
	N.T.S. 104 P/5	DRAWN BY: H.H.
	RPT NO. 647	

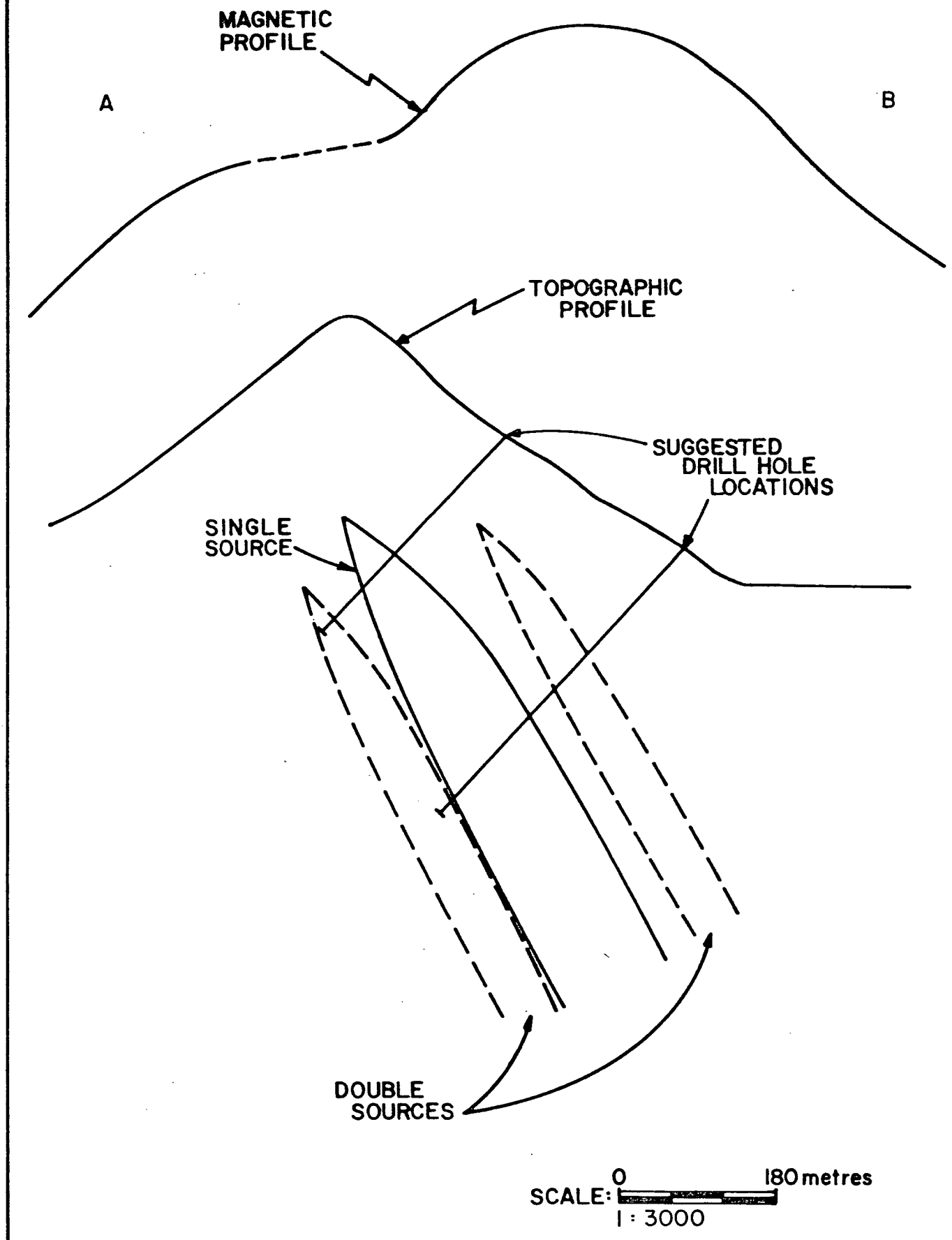


FIGURE 4 : GROUND MAGNETIC CROSS SECTION WITH SOURCE CONFIGURATION

RPT. 647

soft sheared serpentinite and it was feared the rods might be lost if it penetrated into the footwall graphitic argillites.

The core was geologically logged by R.S. Hewton and stored on the mine-site at Cassiar. A fibre log was begun at 1350 ft. (411 m) for the information of the exploration department and the core was read twice in September by mine personnel. The results are very close. Deflection in the hole was measured by 6 acid tests which indicated a lessening of dip by 9^{o}, most occurring in the hanging wall rocks. Horizontal deflection is unknown but expected to be minor.

Magnetic susceptibility readings were taken throughout the hole. There was essentially no response from any rock except for the ultramafic (Table of Readings, Appendix 2).

7.0 RESULTS AND INTERPRETATION

The hole intersected 242 m of serpentinite of which 50 m contained low grades of fibre and 151 m contained high grades of fibre. Asbestos fibre is not amenable to normal methods of valuation based on chemical assays and the following general method was employed.

1. Fibre bearing zones of core are divided into five foot lengths (1.52 meters).

2. In each five foot section the length of every fibre seam is measured in 1/16 inch (1.587 mm) increments.

3. To obtain an estimate of the percent of fibre in each section, the total length of all fibre measured is divided by the length of recovered core, to obtain a Core Reading Grade (CRG). Because the Cassiar orebody is considered a stockwork, all fibre seams are oriented randomly. To account for this randomness a correction factor (Cosecant 45^{o} = 1.414) is applied to the CRG (CRG x 1.414) to give a Corrected Core Reading Grade (CCRG).

Although the intersection of DDH 84-1 is about 200 m southeast of the previously drilled part of the McDame deposit, the homogeneity of the deposit is such that it can be used with confidence to calculate reserves. The engineering staff at Cassiar have calculated reserves using a modified weighting three dimensional block model method with certain confidence limits applied on the drill hole information. Block tonnages calculated within the area of the probable reserves were checked with tonnages for the same areas calculated using grid sections and a good correspondence was established. The intersection of Hole 84-1

allowed the possible tonnage reserve of the McDame deposit, of greater than 3% CCRG, to be increased by about 30 million tonnes (Carew and Pennock, Oct. 31, 1984). The total approximate reserves are:

	Tonnes
Probable	15,000,000
Possible	46,000,000
TOTAL	61,000,000

These figures are based on limited drill intersections.

8.0 GEOLOGY

The Asbestos bearing serpentinites at Cassiar are part of the Sylvester Group. In the vicinity of the mine the Group consists of a monotonous sequence of interlayered argillites, cherty sediments and greenstones with ultramafics, of oceanic origin. It is considered to be an allochthonous klippe emplaced onto the underlying Devonian and older rocks between the Triassic and mid-Cretaceous periods (Harms, 1985). Before and during emplacement the Group underwent considerable tectonic deformation, primarily thrust type, so that although there is obvious lithologic layering, the layers are discontinuous, pinch and swell, and are not in their original stratigraphic order, making the tracing of units any great distance along strike almost impossible. Despite this, a "package" of layers may be sufficiently distinctive that it can be correlated between two points, although individual layers in the package may come and go. On the basis of this an attempt has been made to correlate the hanging wall argillites and greenstones encountered in Hole 84-1 with outcrop on McDame Mountain as shown in the section Figure 6. It appears that the hanging wall consists of two thrust sheets and these perhaps consist of lesser thrust sheets. It must be realized that the whole hanging wall sequence is considerably deformed and that the recognition of thrusts is very subjective.

9.0 REFERENCES

Carew, T. and Pennock, M., 1984 - McDame Lens Geological Resource Statement as of October 31, 1984, Brinco Mining in-house report

Harms, T., 1985 - Pre-emplacement Thrust Faulting in the Sylvester Allochthon, Northeast Cry Lake Map Area, British Columbia, G.S.C. Current Research, Paper 85-1a.

Pennock, M. and Pratt, W., 1982 - Report on Underground Diamond Drilling for June - December 1981 Beneath the Cassiar Mine, B.C.D.M. Assessment Report

APPENDIX 1

DRILL LOGS D.D.H. 84-1

PROJECT CASSIAR DRILLING

D. D. HOLE No. 84-1

LOCATION 21440N 25870E

R.S. Newton

HOLE STARTED July 20, 1984

HOLE COMPLETED August 6, 1984

CORE RECOVERY ____ %

DRILLED BY Coates Diamond Drilling

SURVEY

Depth	Dip	Azimuth
251' 80°	76°30'	-
448' 77°	72°30'	-
745' 77°	72°30'	
1007' 75°30'	70°36'	-
1332' 76°	71°12'	-
1639'	69°	-
2023'	69°	-

COLLAR. LAT. 21472.25 N

DEP. 25916.39 E

ELEV. 5885.9'

AZIMUTH 270°

DIP. 78°

LENGTH 2042'

HOR. PROJ. ____ VERT. PROJ. ____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLING SPL. NO.	SAMPLING FROM	SAMPLING TO	SAMPLING FEET
0	17.6	Casing				
17.6	120.9	Argillite Predominantly grey-black soft argillite with local random quartz veins at irregular attitudes 17.6 - 35.4' - beds are brecciated (and boudinaged) giving lensy irregular appearance. Beds at 40° to ca. 20.7 - 21.0' - tuff, green colour 35.4 - 46.2' - relatively homogeneous dark grey to black argillite, completely silicified, perhaps some black chert beds, several sandy beds. Beds at 80° 38.5 - 40.9' - quartz vein, grey white, rare argillaceous fragments, several chlorite fragments which may be ghost argillite fragments 40.9 - 41.5' - very fine grained tuff, green, with lenses of quartz, numerous dendritic blobs and reticulate filaments of manganese 46.2 - 49.3' - interbedded silicified argillite and tuff, approximately 70% very fine grained green tuff with reticulate and spotty manganese, beds at 90°, minor epidote - argillite featureless, very silicified 49.3 - 120.9' - grey and black argillite with distinct but completely contorted bedding at 10° to 90° to ca. 1% py on thin fractures and as small patches				

HOLE NO. 84-1

PROPERTY

SHEET NO. 2

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLING SPL. NO.	SAMPLING FROM	SAMPLING TO	SAMPLING FEET
		53.4' - intense brecciation with numerous quartzite fragments 54.2 - 55.1' - numerous quartzite beds, boundinaged, high manganese content, beds at 75° 64' - greenstone beds become numerous 70' - quartzite becomes dominant 68.4' - blotch of pyrrhotite, weakly magnetic, speck of chalcopyrite 67-70' - very fine disseminations of pyrrhotite, weakly magnetic, 0.2 on susceptibility meter over one small patch, rest 0.1 Chlorite present throughout 49.3 - 120.9' section and most abundant in quartz veins. Locally up to 5% pyrite but average is 1% to 97', almost none past 97' 103.0 - 109.0' - white to light grey chert with reticulate network and dendrites of manganese, bedding completely distorted, local brecciation 116.5 - 117.3' - breccia zone; very heavily brecciated and rehealed - possible fault, contacts at 50° (upper) and 64° (lower)				
120.9	128.7	Tuff homogeneous, green, medium grained tuff with round quartz grains, some green (sericitized) feldspar crystals, a few of which are subhedral. Black manganese specks throughout. Interbeds of dark grey argillite present.				
128.7	141.7	Argillite very distorted bedding, brecciated, numerous chert fragments, some quartzite beds, pyrite 1% as cubes disseminated throughout 130.4 - 141.7' - grey argillite with internal brecciation grading through to quartzitic beds, to tuff by 137' to brecciated quartzite and argillite with some chert by 141.7'. Approx. 1% pyrite throughout.				
141.7	147.0	Breccia Zone intense breccia with argillite and quartzite beds fractured and healed by quartz, calcite and ankerite(?), 1-5% very fine grained pyrite throughout. 144.5 - 145.5' - crystalline quartz with 50% argillite and quartzite fragments - probably fault zone				

HOLE NO. 84-1

PROPERTY _____ SHEET NO. 1

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLING SPL. NO.	SAMPLING FROM	SAMPLING TO	SAMPLING FEET
147.0	201.1	Argillite Interbedded grey and black argillite with interbeds of chert, quartzite, and tuff. 147.0 - 153.1' - dark grey argillite with quartzite interbeds, chloritized, 1% disseminated pyrite 153.1 - 173.5' - homogeneous grey argillite interbedded green tuff brecciated and boudinaged beds, 1% py with concentrations to 5% over 3-5 cm. Occasional quartz-calcite stringers at 10°. 173.5 - 182.7 - black argillite interbedded with grey quartzite and some green tuffs, very silicified, some chert beds, random quartz veins with chlorite, manganese lattice in chert-silica zones, also specks of manganese. 189.3 - 201.1' - homogeneous grey argillite with green tuff interbeds with argillite predominant near top, tuff more abundant near lower contact, manganese network throughout. Upper contact 45°, lower 70°.				
201.1	208.0	Tuff green, medium grained, rounded quartz comprises 60% of unit, manganese specks and lattice network throughout, several black argillaceous bands to 10 cm thick with distorted bedding and fragments of quartzite				
207.0	212.5	Argillite grey argillite with quartzite and some chert, heavily mottled, boudinaged, bedding irregular at 70°				
212.5	221.6	Tuff or Flow 212.5 - 217.0' - green tuff (or flow), medium grained rounded quartz grains, black rounded to tabular grains and amorphous green grains - probably silicified feldspars, 10% argillaceous material in irregular beds 217.0 - 221.6' - fine grained light grey-green tuff, bedding thin and irregular at 65°				
221.6	335.1	Argillite 221.6 - 239.6' - mottled grey argillite with quartzite and light grey interbeds, boudinaged, some chert 239.6 - 269.0' - grey argillite with coarse tuff interbeds, breccia often melding together. Beds very indistinct and at 0 to 90°, beds often faulted.				

HOLE NO. 84-1

PROPERTY

SHEET NO. 4

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLING SPL. NO.	SAMPLING FROM	SAMPLING TO	SAMPLING FEET
		269.0 - 298.5' - as above with less tuff, more chert with dendritic manganese such as at 287.5-298.5'. Chert zones are separated by siliceous argillite, bedding very irregular and indistinct, usually around 60° 298.5 - 300.2' - breccia zone with multi-sized fragments to 0.1' 300.2 - 326.5' - evenly, thinly bedded argillite with grey sandy beds, no chert, bedding undulates and is wispy but not mottled, usually at 50-55° 326.5 - 335.1' - very fine grained black argillite, thin bedded, few sandy interbeds to 1 cm thick, core badly broken, beds at approximately 65°, thin pyrite seams on fractures				
335.1	344.6	Tuff 335.1 - 343.0' - medium grained (flow?) with quartz and sericitized feldspar, approximately 5% pyrite as disseminated specks, NOTE: calcite is present in all units throughout hole, principally on fractures, but is less common in chert or siliceous units and most common in tuffs. 343.0 - 344.6' - fine grained tuff, interbeds of argillite, represents contact zone, beds at 60 to 90° and are very distorted.				
344.6	388.7	Argillite - thinly bedded with chert, quartzitic and rare green tuff interbeds, bedding very distorted, generally at 62° - chert uncommon, generally light grey, and forms lensy or boudinaged beds - quartzite beds most commonly separated by thin argillite 355.3 - 373.9' - quartzite less frequent, argillite and chert beds common, no tuff, chert more abundant and still lensy, bedding 10-90°, pyrite throughout. 356.7 - 0.3' thick zone of chert with specks and dendrites of manganese 373.9 - 388.7' - shaley argillite with decreased chert beds and some quartzite beds, less boudinaging, less bedding distortion, beds at 60 to 65°				

HOLE NO. 84-1

PROPERTY

SHEET NO. 5

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLING SPL. NO.	SAMPLING FROM	SAMPLING TO	SAMPLING FEET
388.7	391.2	Volcanic Flow (?) - upper and lower contacts at 65°, may not be a flow, fine argillite laminations at lower contact are not disturbed and show no reaction rims, probable tuffaceous material in argillite below lower contact; 0.3' below lower contact is band of tuff/chert - upper contact passes from coarse tuff to tuff to chert to argillite in 0.2'				
391.2	396.0	Argillite black argillite with occasional chert lenses and some quartzitic beds, bedding irregular at 60°, 2% disseminated and fracture filled pyrite throughout				
396.0	401.0	Brecciated argillite with greenstone (tuff) beds.				
401.0	412.0	Argillite & chert - grey, with narrow tuff beds, blotches of pyrite throughout to over 10% over 2 cm - unit is brecciated with fragments displaced, as though faulted - tuff fragments increase towards bottom, contact with unit below is gradational, quartz veins at 0 to 10° - 402' - pyrrhotite, weakly magnetic, susceptibility meter 0.1				
412.0	422.4	Tuff - fine grained, grey-green, pyrite on fractures, random veinlets of manganese, some quartz veins to 3 mm thick with reticulate manganese within (late stage quartz veinlets with manganese selvedge at 0-10° from 412-413). Pyrite on fractures at 45°, manganese random but commonly at 45°, also fractures at 0-10° with nothing or calcite				
422.4	512.0	Volcanic Flow - coarse grained, quartz and feldspar crystals, feldspar now green - probably sericitized, 2% pyrite in fractures and disseminated, quartz chlorite veins at 0-10° 448.0 - 454.9' ' lath-like crystals have hard green core with white soft envelope - partially sericitized feldspar 472' - few grains of pyrrhotite, weakly magnetic, susceptibility meter 0.1 499' - argillite and tuff interbeds begin - argillite becomes more abundant at depth, last coarse greenstone at 512' - argillaceous beds are distorted and brecciated				

HOLE NO. 84-1

PROPERTY. — — —

SHEET NO. 6

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLING SPL. NO.	SAMPLING FROM	SAMPLING TO	SAMPLING FEET
512.0	533.3	Tuff - fine to medium grained, no distinct bedding, grey-green, manganese reticulate lattice work throughout, frequent grey-black quartz veins at random angles, numerous chlorite veins and patches and sometimes amorphous masses with stringy pseudo bedding - black chert bands at 80-85° are well defined at 518' and 523' - specks of pyrite and fracture filling throughout - lower contact gradational with increase in argillaceous material				
533.3	541.1	Argillite - black, abundant chert beds, lensy, 1% pyrite on average but sections to 5%, quartz veins at 10-20°, bedding obscure, brecciated, black lattice manganese in chert-rich beds				
541.1	661.7	Tuff - fine grained as 512.0-533.3', homogeneous green veined with black which is mostly cherty argillite, chlorite (minor) and manganese. Quartz chlorite veins are common, often with quartz selvedge. Thicker cherty argillite at 590-592', 621.7-622.9' and 635.2-636.4'. Dendritic manganese at 625.6-627.0'. Quartz chlorite at 627-628' 630.5 - 631.1 - Rhodochrosite veinlet				
661.7	667.0	Contact Zone - interbedded tuff and argillite (green and black) with minor grey chert				
667.0	701.5	Argillite - thin bedded at 65-70°, black, numerous quartz veins to 5 mm thick at 15°, fine grained light grey quartzite becomes more dominant after 677'. Quartzite is 50% from 677-692', 90% from 692-699' and 5% from 699-701.5'				
701.5	719.3	Tuff - as 512.0-533.3', very siliceous - probably chert, upper contact at 62°, lower at 70°, 5% disseminated pyrite, quartz veins at 15°, black chert with manganese(?) network, no chlorite, black lattice work throughout				
719.3	760.3	Argillite				

PROPERTY. ..... HOLE NO. 84-1

SHEET NO. 7

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLING SPL. NO.	SAMPLING FROM	SAMPLING TO	SAMPLING FEET
		- interbedded argillite and quartzite at 70-75°, no quartz veining - just a few tension gashes healed with quartz-calcite, 1% pyrite disseminated and fracture filling 727' - calcite content drops to almost 0 after 727' 738' - quartzite dominates, 2 cm thick beds with 1-2 mm beds of argillite between, beds are lenny 755' - argillite content increases, quartz veins 1 cm thick at 15°				
760.3	772.0	Fault Zone - rubble of black argillaceous material with remnant quartzite beds; probably interbedded quartzite and argillite - quartz veins random				
772.0	779.2	Argillite - grey and black interbedded, 60% quartzite, 40% argillite, beds at 52°, thinly bedded, core broken				
779.2	784.0	Breccia Zone (Fault?) - healed and broken breccia with some remnant argillite quartzite beds at 50°				
784.0	787.0	Fault Zone - argillite rubble				
787.0	810.2	Argillite - grey, mottled or lensy chert beds near top, consistent beds at 75° by 789', 2 cm thick with thin black argillaceous partings, pyrite on fractures throughout and also disseminated on bedding planes, lower contact at 80° - thin (1 mm) chert beds often with pyrite, quartz veins at 0-10°				
810.2	826.4	Argillite - tuffaceous, thin beds of argillite, chert beds lensy (pinch and swell), pyrite lenses in coarser quartzite beds, beds at 75°, quartz veins at 5-15° - frequently with chlorite - grey argillite beds to 3 cm thick, black shaley interbeds to 1 cm thick				
826.4	832.5	Tuff - green, with chert interbeds, local coarse grained beds lower contact with argillite gradational				

HOLE NO. 84-1

PROPERTY

SHEET NO. 8

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLING SPL. NO.	SAMPLING FROM	SAMPLING TO	SAMPLING FEET
832.5	953.5	Argillite - thinly evenly bedded at 70°, grey and black argillite, pyrite common on black argillite interbeds, no calcite, quartz beds or veins parallel to bedding, some grey argillite beds are quartzite (10%), quartz veinlets have creamy white, soft mineral - probably ankerite which is 10-20% of quartz vein 841.7 - 849.2' - numerous thin quartz veins at 25° 865.8 - 878.3' - intense quartz carbonate veining, beds broken and distorted, possible fault zone, chlorite common in vuggy quartz veins 886.3 - 886.5' - tuff bed, upper contact at 75°, lower at 65° 887.0 - 892.0' - bedding indistinct, grey argillite beds (nodular) predominate, bedding thinner 905.2 - 924.0' - black argillite with dark grey interbeds, bedding homogeneous, very few quartzite beds, minor quartz veining, rare green tuff beds, 920' - chert beds 924.0 - 941.2' - argillite and tuff interbeds, tuff cut by dendritic manganese, poorly defined argillite beds at 70° 941.2 - 953.5' - interbedded black and grey argillite with some quartzite and some chert beds, evenly bedded, sometimes brecciated, sometimes lensy, light grey argillites to 2 cm, bedding at 70 to 90° 953.5' - gradational contact with unit becoming more tuffaceous (green coloured)				
953.5	999.0	Tuff - light and dark green interbeds at 80° up to 3 cm thick with chert beds every 0.5 m or so, abundant quartz manganese stringers at 45°, manganese disseminated in quartz, calcite present in fractures and quartz stringers at 5-10° 963.0 - 967.5' - coarse grained with abundant chlorite 984.0 - 989.5' - coarse grained with chlorite; quartz-calcite vein at 0° 985.0-985.8' - quartz rhodonite vein at 10°, chlorite abundant 994.0' - chert beds become common 996.0' - argillaceous beds interbedded with tuff at 65°				
999.0	1070.7	Argillite - dark and grey thinly bedded argillite at 75-80°; occasional chert and tuff; beds contorted, sometimes folded, no calcite				

HOLE NO. B4-1

PROPERTY. SHEET NO. 9

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLING SPL. NO.	SAMPLING FROM	SAMPLING TO	SAMPLING FEET
		1041.0-1045.0' - quartz-carbonate veins to 2 mm thick at 45° 1054.0-1059.0' - core very broken 1063.3-1070.7' - gradational increase in tuff content in argillite and several siliceous tuff beds with pyrite; argillite is evenly bedded at 60°				
1070.7	1119.3	Tuff green tuff beds begin in dark grey evenly bedded argillite, beds at 70°, quartz-carbonate veins at 45°, manganese lattice throughout tuff, minor calcite 1089.9' - green tuff dominant with lensy chert beds and black argillaceous partings; pyrite is common on quartz veins or in chert beds 1101.8-1115.0' - coarse grained tuff with abundant chlorite, sparse blotches of weakly magnetic pyrrhotite (1%), calcite common on fractures 1115.0-1119.3' - gradational decrease in tuff content, more argillite near bottom				
1119.3	1141.0	Argillite thinly evenly bedded dark grey argillite with interbeds of quartzite and chert at 60°. Quartz veins with 2% chlorite at 60° are vuggy. Veins also at 5, 15°				
1141.0	1169.0	Chert and Tuff medium grained tuff, brown coloured, mixed with grey and black chert with reticulate hairline veining. Quartz veins comprise 4% of core from 1141.8-1146.6'. Pyrite to 1% in quartz veins, also 1% pyrrhotite. Calcite veining common after 1158'. Quartz veins at 10°.				
1169.0	1184.2	Tuff fine grained tuff, green, with chert beds throughout, occasional chlorite veins to 1182' where they become common. Core broken with numerous rubble sections. Quartz veins at 20°, 40°				
1184.2	1215.5	Volcanic altered coarse grained volcanic with dark green crystals (chlorite?) in light green fine grained matrix. Thick sections with 50% or more of dark mineral. Quartz veins present.				

HOLE NO... 84-1

PROPERTY_____ SHEET NO. 10

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLING SPL. NO.	SAMPLING FROM	SAMPLING TO	SAMPLING FEET
1215.5	1237.4	Tuff fine grained, brown silicified, tuff with green (chloritic) partings and interbedded chert. Part of alteration zone that is green at top becoming brown at 1232'. Bedding at 70°.				
1237.4	1247.5	Alteration Zone Beginning of ultrabasic. Rock is dark green, talcy with tuffaceous beds near contact. By 1241' rock has appearance of ultrabasic but is either non-magnetic or weakly magnetic. Green mineral (serpentine?) with fibrous appearance abundant on fracture planes.				
1247.5		Ultrabasic Very dark green to black, fine to medium grained, very fractured, very magnetic, calcite veinlets present, fractures contain dark green mineral (serpentine?) in fibrous form on fractures. Jointing prominent at 10-20°, 40-45°, 60-70° but also present at virtually every other direction. 1255' - calcite no longer present, serpentine becomes significant 1260' - first fibre veins, 1/16" long, rare 1270' - core very broken 1285' - fibre veins become more abundant, still 1/16" or less, irregular pattern, fish scale(?) serpentine still present - veins of fine grained black material, magnetite-rich - occasional bastite noted 1298' - example of magnetite vein - horsetail type, core very broken to 1353', occasional ribbon fibre vein present 1366' - fibre becomes abundant, no fibrous serpentine, fibre veins random, no calcite; numerous fibre veins less than 1/10" are present. 1478-1493' - less fibre, serpentine present again 1492-1530' - ultrabasic is paler green with well defined magnetite zones, some dark green sections, bastites not noticeable 1526-1530.5' - very broken core, shear zone 1530' - abundant very long fibre				

HOLE NO. 84 - 1

PROPERTY

SHEET NO.

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLING SPL. NO.	SAMPLING FROM	SAMPLING TO	SAMPLING FEET	Broken from	Core to	Fault Broken From	Zones and Soft to
		Continuing from 1544' logged by I.L.								
		Serpentinite, with fiber, variable brunswick green, generally light; mottled, turbid and tartan patterns with dark magnetite veinlets; medium grained with bastites generally 2 - 3 mm.					1568.5	1570.2		
							1576.2	1579.5		
									1608	1610.5
							1629	1631		
									1642	1643
		Susceptibility generally 2 to 4, lesser zones of about 1' up to 10 - 15, rare short sections of about 3" up to 30 - 40 -- do not correlate well with visible magnetite. Some Chrysotile veins have high susceptibility due to magnetite partings, others are of ordinary susceptibility							1647	1649.5
									1668.2	1677
									1743	1749
							1749	1752	1752	1754
									1761.2	1762
									1784.7	1885.1
									1789	1793
							1793	1794.5		
		1800 - 1860 Generally dark green, very slight mottling; bastites up to 3 mm, about 5%; Dark magnetite clots about same size range, about 3%. Asbestos veins sharp and straight, often with partings, often several in large veins.					1800	1802	1802	1804
									1832.2	1834
							1834	1835.3	1835.3	1836.5
							1836.5	1837.2		
							1846	1847		
									1848	1855.1
		1860 - 1925 Dark brunswick green (lighter than 1800) with more color variation, tartan in places. Asbestos veinlets more lenzoid and irregular short partings in serpentinite.					1867	1868		
							1873	1879		
									1882	1883
									1885	1889
							1890	1892	1892	1894
		1925 - 1960 Dark green, fairly uniform with scattered thin (< 2mm), scattered magnetite veinlets.					1896	1899		
							1902	1904		
									1911	1913
									1915	1916
		1929 - 1944 Sparse Asbestos veinlets -- short, thin, <1mm scattered veinlets, rock massive, few fractures.							1919	1923
							1923	1925		
							1946	1947		
		1960 - 1990 Gradually becomes slightly lighter green, more mottled, core more broken, asbestos veinlets back to normal percentages.					1983	1985		
									1988	1994

PROPERTY

HOLE NO.

SHEET NO.

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLING SPL. NO.	SAMPLING FROM	SAMPLING TO	SAMPLING FEET	Broken From	Core to	Broken Fault From	Broken and Soft Zones to
		1990 - 2042 Lighter yet but variable color, some tartan. Extensively broken and sheared sections cored reasonable well but broken when put in boxes. Little fiber remains in sheared sections and that is usually soft and easily broken, perhaps talcy.					1994	1996	1996	2001
							2001	2006	2006	2010
							2010	2014		
									2019	2021.5
									2022	2037
		Little fiber apparent below 2023'					2037	2041		
									2041	2042
		2042 End of hole. Due to possibility of rods getting stuck.								

ACID TESTS

DEPTH COLLAR	READ ANGLE	CORRECTED ANGLE
0'	78°	---- Brunton
251'	80°	76°30'
450'	77°	72°30'
745'	77°	72°30'
1007'	75.5°	70°30'
1332'	76°	71°12'
1639'	74.5°	69°20'
2023'	74.5°	69°20'

FIBRE LOG

BOREHOLE No. 1 / 841

	From	To	Rec'd	1's	2's	3's	4's	5's	6's	8's	10's	12's	14's	16's	13+'s	Core/S	CORG		
1352 1355	0	5	5.0	2												45	0.80	G	
	5	10	5.0	1												45	0.14	G	
1365	10	15	5.0	2												45	0.80	G	
1365 - 1370	15	20	4.0	8	6	3										45	2.21	Y	
	20	25	5.0	7	7		4									45	2.64	Y	
	25	30	5.0	8	4	2										45	1.99	Y	
	30	35	5.0	13	6	9										45	4.13	O	
	35	40	5.0	19	8											45	3.97	O	
	40	45	5.0	14	7	9										45	4.35	O	
	45	50	4.3	15	3											45	2.74	Y	
1430 - 1435	50	55	5.0	13	7				6							45	3.83	O	
	55	60	5.0	10	7	3										45	2.87	Y	
	60	65	5.0	11	4											45	2.14	Y	
	65	70	5.0	14	5											45	2.80	Y	
	70	75	5.0	13	3											45	2.23	Y	
	75	80	5.0	10	4											45	2.06	Y	
	80	85	5.0	5	6	3										45	1.99	Y	
	85	90	5.0	13	6	2										45	2.91	Y	
	90	95	5.0	11	7	2										45	2.87	Y	
	95	100	5.0	8	2	3										45	1.91	Y	
	100	105	5.0	6	1											45	1.03	Y	
	105	110	3.6	4												45	0.61	G	
	110	115	5.0	10	5	2	2									45	2.73	Y	
	115	120	5.0	12	12	3										45	3.97	O	
	120	125	5.0	16	5	3										45	3.51	O	
	125	130	4.8	1												45	0.16	G	
	130	135	4.8	9												45	1.89	Y	
	135	140	5.0	10	3	3										45	2.35	Y	
	140	145	5.0	7	3											45	1.17	Y	
	145	150	5.0	5	11	2	5		5							45	4.31	O	
1500 1505	150	155	5.0	11	5	2	2									45	2.94	Y	
1510	155	160	5.0	9	7		6	3	3							45	1.06	O	
	160	165	5.0	3												45	0.44	G	
1520	165	170	5.0	6	1											45	0.95	G	
	170	175	5.0	1												45	0.14	G	1365-1530
-1530	175	180	4.6		2											45	0.33	G	Avg 2.37%
1520-1535	180	185	4.8	16	15	15	13	3	5	17						45	12.23	R	
	185	190	4.8	16	21	8	5	5	3							45	8.50	R	
	190	195	4.8	15	11											45	3.92	O	
	195	200	5.0	23	13	9	2									45	6.85	P	

200	205	5.0	10	22	3	14	8		4				45	8.84	R
205	210	5.0	16	14	17	2							45	7.14	R
210	215	4.8	14	13	6	6		13					45	7.52	R
215	220	4.2	7	2	5	5							45	2.72	Y
220	225	5.0	13	7	9	8	3						45	5.81	P
225	230	5.0	15	14	6		3						45	5.53	P
230	235	4.8	11	14	15	13	3	9			5	7	45	11.27	R
235	240	4.6	14	15	10	4	3	10	4				45	8.90	R
240	245	5.0	18	13	12								45	6.84	P
245	250	5.0	16	14	8	6	5	12	4				45	9.50	R
1600-1605 250	255	5.0	13	8	5	4	3						45	4.71	O
255	260	5.0	12	21	6	2	5						45	6.70	P
260	265	5.0	6	11	11	4		9			12		45	7.74	R
265	270	5.0	21	12	9	10	8	6					45	9.57	R
270	275	5.0	7	10	23	10	3	3					45	8.10	R
275	280	5.0	14	15	11	2							45	6.11	P
280	285	5.0	17	25	3	4	3	3	4		6		45	9.50	R
285	290	5.0	23	14		2	3	9					45	7.44	R
290	295	5.0	16	15	8	2							45	5.97	P
295	300	5.0	10	11	5	2	5						45	4.79	O
300	305	4.2	33	25	17	7	4	7	5				45	14.21	R
305	310	5.0	18	17	14	3	8	21	3	10			45	15.51	R
310	315	5.0	7	12	6		3		8				45	5.16	P
315	320	4.5	8	6	3	7							45	3.35	O
320	325	4.1	1	2	4								45	1.07	Y
325	330	3.9	9	1	4								45	1.93	Y
330	335	5.0	21	6	2	4							45	4.71	O
335	340	4.9	9	6									45	2.25	Y
340	345	4.9	17	8	2	6							45	4.81	O
345	350	5.0	12	10	6	2	5		8				45	6.84	P
1700-1705 350	355	4.3	22	10	7	7		3	5				45	7.95	R
355	360	5.0	13	12	6	10		3	16		12		45	10.61	R
360	365	5.0	20	21	2	4	3	13	4				45	10.47	R
365	370	5.0	17	23	3	4		6					45	8.47	R
370	375	5.0	17	25	23	6							45	10.98	R
375	380	5.0	23	23	12	4							45	9.14	R
380	385	5.0	13	15	17	10		6					45	8.91	R
385	390	5.0	16	30	14	8	8	12					45	12.81	R
390	395	4.9	9	6	5								45	2.85	Y
395	400	4.5	20	13	17	4	9	7					45	10.22	R

	400	405	4.7	10	9	2	2	3					45	3.52	O
	405	410	5.0	17	20	17	6	8					45	9.37	R
	410	415	5.0	19	19	6			6				45	7.37	R
	415	420	5.0	12	9	11	8	3	12				45	7.96	R
	420	425	5.0	15	11	6	8	5	6				45	7.51	R
	425	430	4.9	24	16	12	12	3					45	9.91	R
	430	435	5.0	22	9	5		3	3				45	5.97	P
	435	440	5.0	18	10	9	4	3	6				45	7.23	R
	440	445	4.7	19	14	3							45	5.25	P
	445	450	4.1	16	15	4							45	5.03	P
1800 -1805	450	455	4.2	17	12	14	5			10			45	8.33	R
	455	460	5.0	22	20	17	4		12				45	10.90	R
	460	465	5.0	21	13	20	6	3					45	9.07	R
	465	470	4.3	28	12	9	5						45	7.71	R
	470	475	5.0	17	20	14	10		3	4			45	9.94	R
	475	480	5.0	26	25	21	22	15	15				45	13.27	R
	480	485	4.0	23	26	14	10	10	4				45	12.52	R
	485	490	4.3	30	35	9	9	12	3	5	6	14	45	17.99	R
	490	495	4.4	19	11	7							45	5.53	P
	495	500	4.8	34	22	9	10	3	3				45	12.05	R
	500	505	2.0	13	13	8							45	4.61	O
	505	510	4.8	24	20	13	10	5					45	10.59	R
	510	515	5.0	16	11	6	6	3	3				45	6.49	P
	515	520	5.0	23	11	8	6						45	6.92	P
	520	525	5.0	11	7	5	4	5					45	4.54	O
	525	530	5.0	11	8								45	2.80	Y
	530	535	4.0	11	14	10	10	5	8				45	8.57	R
	535	540	4.8	17	15	3	8	5	13				45	8.82	R
	540	545	4.8	18	25	18	13	3	13				45	12.88	R
	545	550	4.8	20	20	9	19		3	4			45	11.05	R
	550	555	4.7	15	12	12	2						45	5.80	P
1900 -1905	555	560	4.7	14	17	9	4	9	10		11		45	10.49	R
	560	565	4.4	11	22	7	16		10				45	9.63	R
	565	570	5.0	11	13	11	6	3	9				45	7.59	R
	570	575	4.6	3	2	5	9	11	13	9	5		45	8.40	R
	575	580	5.0	7	9	3		3					45	3.17	O
	580	585	5.0	1									45	0.14	G
	585	590	5.0	2	4	3							45	1.33	Y
	590	595	4.7	4	3		4						45	1.64	Y
	595	600	3.7	16	12	15	3		4				45	7.27	R

600	605	5.0	9	8	6		3	6	4		45	5.16	P
605	610	5.0	6	3	3						45	1.70	Y
610	615	5.0	12	14	11	6	5	3			45	7.87	R
615	620	4.9	9	16	11	8	15	3	8		45	10.45	R
620	625	5.0	7	15	11	2	5	3			45	6.13	P
625	630	5.0	17	17	11	4	13		4		45	9.50	R
630	635	3.1	16	26	10	6		5	13		45	11.05	R
635	640	4.5	9	3	13	4	3	7		7	45	6.79	P
640	645	4.5									0	0.00	G
645	650	4.4	7	8							45	2.09	Y
650	655	5.0	4	7	6	4					45	3.10	O
655	660	4.3	10	14	3	9					45	5.49	P
660	665	5.0	17	21	3	4			8		45	7.81	R
665	670	5.0	15	12	2	1					45	4.79	O
670	675	4.4	9	9	3	7					45	4.19	O
675	680	4.1		2							45	0.35	G
680	685	4.1			7						45	1.07	Y
685	690	4.5	9	9	3						45	3.03	O
690	692	2.0	5	3							45	1.10	Y

APPENDIX 2

MAGNETIC SUSCEPTIBILITY READINGS FOR DDH 84-1

MAGNETIC SUSCEPTIBILITY READING FOR 84-1

FOOTAGE	READING	FOOTAGE	READING	FOOTAGE	READING	FOOTAGE	READING	FOOTAGE	READING
23.0	0.0	334.0	0.2	717.0	0.0	1037.0	0.0	1349.0	3.1
28.0	0.0	336.0	0.4	727.0	0.0	1047.0	0.0	1352.0	3.6
34.0	0.0	339.0	0.2	735.0	0.0	1057.0	0.0	1358.0	8.3
44.0	0.0	344.5	0.1	745.0	0.0	1067.0	0.0	1365.0	7.5
54.0	0.0	352.0	0.0	755.0	0.0	1077.0	0.1	1375.0	8.2
64.0	0.0	361.0	0.0	765.0	0.0	1087.0	0.0	1385.0	4.4
74.0	0.0	371.0	0.0	771.0	0.0	1097.0	0.0	1395.0	8.0
79.0	0.0	381.0	0.1	777.0	0.0	1104.0	0.3	1405.0	5.0
82.0	0.0	391.0	0.1	786.0	0.0	1105.0	0.3	1415.0	9.1
91.5	0.1	400.5	0.0	794.0	0.0	1106.0	0.3	1425.0	6.5
95.0	0.0	410.5	0.0	804.0	0.0	1107.0	0.3	1433.0	4.3
97.0	0.0	414.0	0.0	814.0	0.0	1108.0	0.3	1443.0	5.0
103.0	0.0	424.5	0.1	824.0	0.1	1117.0	0.0	1453.0	2.4
109.0	0.0	435.0	0.0	831.0	0.0	1120.0	0.1	1463.0	11.3
117.0	0.0	445.0	0.0	836.0	0.0	1122.0	0.0	1473.0	8.0
127.0	0.0	448.0	0.0	837.0	0.1	1127.0	0.0	1483.0	3.1
137.0	0.0	457.0	0.1	847.0	0.1	1137.0	0.0	1492.0	4.5
147.0	0.0	467.0	0.0	852.0	0.0	1147.0	0.1	1497.0	2.7
154.0	0.0	474.5	0.0	857.0	0.1	1157.0	0.0	1507.0	5.7
164.0	0.0	476.5	0.0	862.0	0.0	1164.0	0.0	1515.0	2.7
173.0	0.1	487.0	0.1	867.0	0.1	1168.0	0.0	1523.0	3.1
177.0	0.0	497.0	0.1	877.0	0.1	1174.0	0.0	1530.0	4.6
187.0	0.0	507.0	0.0	887.0	0.0	1180.0	0.0	1535.0	10.5
197.0	0.0	517.0	0.0	897.0	0.0	1187.0	0.0	1540.0	8.0
207.0	0.0	527.0	0.0	907.0	0.0	1197.0	0.1	1547.0	
217.0	0.0	537.0	0.0	915.0	0.0	1207.0	0.1	1553.0	
223.0	0.0	547.0	0.0	919.0	0.0	1217.0	0.1	1563.0	
228.0	0.0	557.0	0.0	920.0	0.1	1227.0	0.0	1570.0	
232.0	0.1	559.5	0.0	923.0	0.0	1237.0	0.1	1579.5	
237.0	0.0	567.0	0.0	925.0	0.1	1246.0	0.6	1590.0	3.0
241.0	0.0	577.0	0.0	932.0	0.0	1255.0	4.6	1598.0	3.5
251.0	0.0	587.0	0.0	940.0	0.1	1265.0	6.4	1605.0	3.0
257.0	0.0	597.0	0.0	947.0	0.0	1273.0	3.8	1610.0	4.6
267.0	0.0	607.0	0.0	952.0	0.1	1277.0	8.3	1617.0	4.0
274.0	0.0	617.0	0.1	955.0	0.1	1284.0	5.2	1625.0	10.5
279.0	0.0	627.0	0.1	957.0	0.1	1294.0	5.5	1633.0	5.0
287.0	0.0	637.0	0.1	959.0	0.1	1297.0	2.8	1642.0	7.0
297.0	0.0	647.0	0.0	967.0	0.0	1303.0	4.8	1648.0	4.2
303.0	0.1	657.0	0.0	972.0	0.1	1306.0	6.0	1656.0	2.8
303.0	0.0	667.0	0.1	977.0	0.0	1312.0	5.6	1666.0	2.7
303.0	0.0	672.0	0.0	987.0	0.0	1321.0	5.5	1666.0	4.5
310.0	0.0	677.0	0.1	997.0	0.0	1326.0	4.5	1672.0	5.3
317.0	0.0	687.0	0.1	1007.0	0.0	1333.0	5.3	1672.0	5.0
327.0	0.0	697.0	0.0	1017.0	0.0	1341.5	4.3	1676.0	2.2
334.4	0.1	707.0	0.0	1027.0	0.0	1345.0	4.1	1676.0	1.0
								1685.0	4.5

MAGNETIC SUSCEPTIBILITY READING FOR 84-1 (cont'd)

FOOTAGE	READING	FOOTAGE	READING	FOOTAGE	READING	FOOTAGE	READING	FOOTAGE	READING
1695.0	5.5								
1705.0	2.5								
1713.0	3.0								
1722.0	3.5								
1731.0	4.0								
1741.0	3.5								
1751.0	5.5								
1759.0	2.5								
1767.0	8.2								
1777.0	12.5								
1787.0	6.5								
1797.0	3.7								
1804.0	5.5								
1811.0	5.5								
1817.0	17.0								
1827.0	3.8								
1837.0	4.2								
1843.5	7.2								
1851.0	5.6								
1861.0	6.9								
1867.0	6.1								
1877.0	5.5								
1887.0	3.5								
1894.0	3.6								
1903.0	7.5								
1914.0	18.6								
1924.0	5.2								
1934.0	6.4								
1944.0	9.8								
1953.0	2.9								
1962.5	1.6								
1969.5	3.6								
1977.0	2.4								
1987.0	2.6								
1993.0	5.4								
1999.0	8.1								
2005.0	8.7								
2015.0	4.3								
2025.0	4.5								
2035.0	5.3								
2042.0	8.2								

APPENDIX 3

ITEMISED COST STATEMENT

APPENDIX 3

ITEMISED COST STATEMENT

Diamond Drilling

Drilling Costs - 406 m HQ, 216 m BQ, sliding rate scale	$46,499.65
Materials	7,456.51
Reaming and hole stabilization	1,676.40
Standby	447.00
Casing left in hole	765.79
Mobilization/Demobilization	7,230.00
Drillers food and accommodation - 68 man-days @ $52/man-day	3,536.00
Helicopter - 3.7 hrs. @ $527.50/hr.	1,951.75

Support

Supervision - July 23 - Aug. 3/84 - 12 days @ $300/day	3,600.00
Geologist - July 20 - Aug. 12/84 - 24 days @ $145/day	3,480.00
Technician - July 25 - July 27/84 - 3 days @ $129/day	387.00
Assistant - Aug. 9 - Aug. 10/84 - 2 days @ $ 65/day	130.00
Food and accommodation - 41 man-days @ $52/man-day	2,132.00
Vehicle - Chargeout, 24 days @ $35/day	840.00
Fuel and repairs @ $18/dy	432.00
Travel - 2 men, Vancouver-Cassiar Return	1,000.00
TOTAL	$90,217.15

APPENDIX 4

STATEMENTS OF QUALITICATIONS,

R.S. HEWTON and I.A. LYN

STATEMENT OF QUALIFICATIONS

I, Robert S. Hewton of West Vancouver, British Columbia, hereby certify that:

1) I am a geologist residing at 2709 Marine Drive, West Vancouver, B.C. and am currently employed by Brinco Mining Limited of #704 - 602 West Hastings Street, Vancouver, B.C. V6B 1P2.

2) I graduated from McMaster University, Hamilton, Ontario with a B.Sc. in geology in 1969 and have practised my profession since.

3) I am currently registered with the Association of Professional Engineers for the Province of British Columbia, registered with the Association of Professional Engineers of Yukon Territory, and a Fellow of the Geological Association of Canada.

4) Work on the property was done by me or under my direct supervision.

Respectfully,

BRINCO MINING LIMITED

R.S. Hewton, P.Eng.

STATEMENT OF QUALIFICATIONS

I, Ian A. Lyn, of 32B West 11th Avenue, Vancouver, B.C. hereby certify that:

1) I received a Bachelor of Science degree in geology from the University of Toronto in 1978.

2) I am a member of the Canadian Institute of Mining and Metallurgy, and Associate of the Geological Association of Canada.

3) I have been employed by Brinco Mining Limited since 1978.

Ian Lyn

Ian A. Lyn

Legend

Ob overburden

ALLOCHTHONOUS

DEVONIAN - MISSISSIPPIAN

9	Ultramafite, undifferentiated
9s	Serpentinite
9so	Serpentinite with asbestos ore
9d	Diorite gabbro
9z	Alteration zone around serpentinite
8	Sylvester Group, undifferentiated
8a	Argillite
8ab	Argillite, black, graphitic, relatively soft
8ac	Argillite with ribbon cherts
8af	Argillite with greenstone fragments
8ag	Argillite with greenstone tuff beds
8aL	Limy argillite
8g	Greenstone
8gf	Greenstone flow
8gc	Cherty Greenstone
8gt	Greenstone tuff
8gp	Greenstone pillowed
8L	Limestone; thin beds, replaced by chert
8Qc	Quartz - carbonate Alteration Zones

AUTOCHTHONOUS

7	McDame Group, Limestone, Dolostone
6	Sandpile Group, Dolostone, Quartzite
5	Kechika Group, Black argillite

SYMBOLS

- Outcrop
- Bedding
- Fault with dip
- Contact
- Road
- Toe of slope
- Brow of slope
- Claim line from mine plans.

NOTE : Pit geology from mine maps

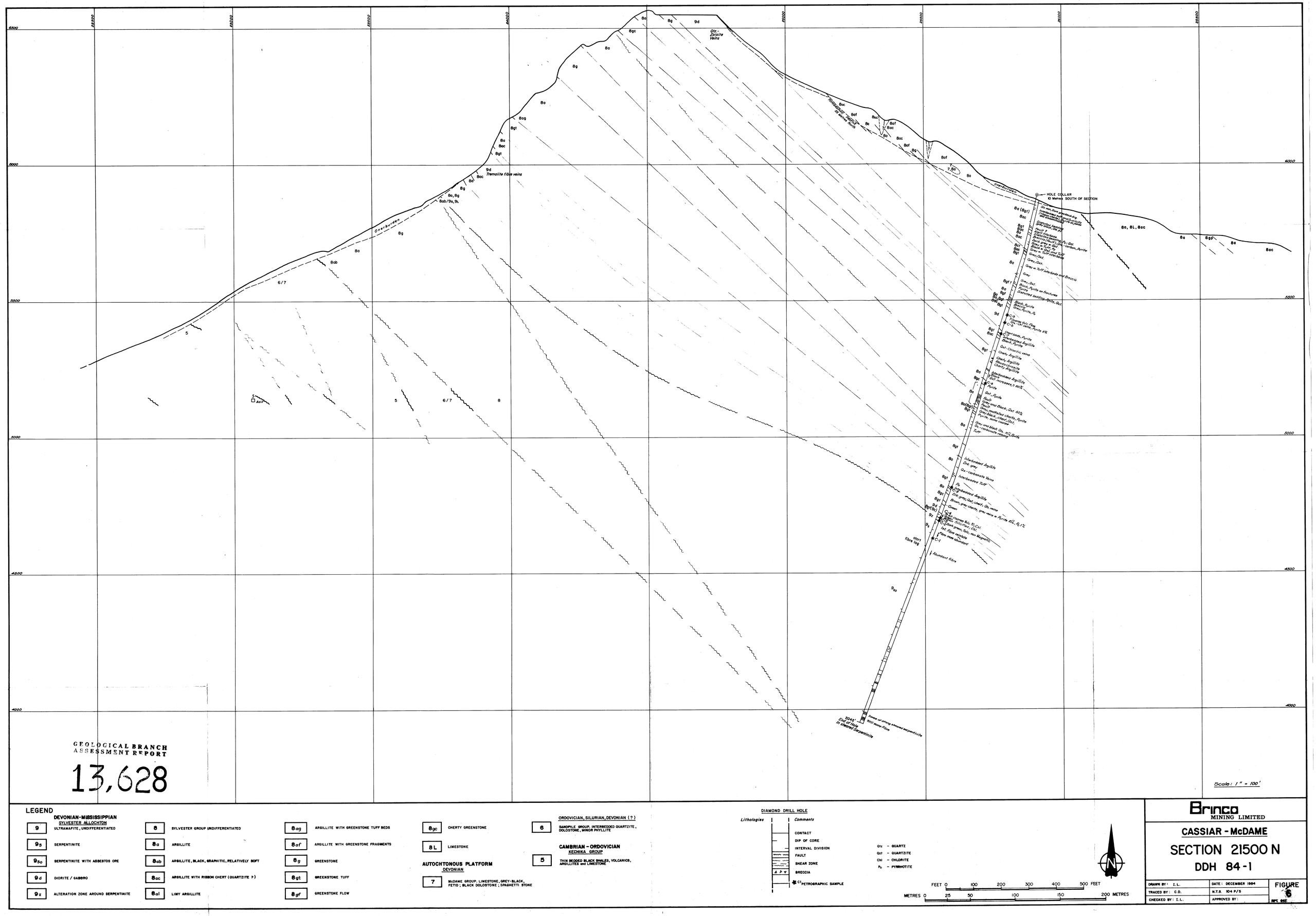
FEET 0 — 500
METRES 0 — 200

Brinco MINING LIMITED

CASSIAR – McDAME

SOUTH PEAK GEOLOGY

DRAWN BY: I.L.	DATE: 1 DECEMBER 1984	FIGURE 5
TRACED BY: C.D.	N.T.S. 104 P/5	
CHECKED BY:	APPROVED BY:	RPT. 647



GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,628

LEGEND

DEVONIAN-MISSISSIPPIAN
SYLVESTER ALLOCHTON

9	ULTRAMAFITE, UNDIFFERENTIATED
9s	SERPENTINITE
9so	SERPENTINITE WITH ASBESTOS ORE
9d	DIORITE / GABBRO
9z	ALTERATION ZONE AROUND SERPENTINITE
8	SYLVESTER GROUP UNDIFFERENTIATED
8a	ARGILLITE
8ab	ARGILLITE, BLACK, GRAPHITIC, RELATIVELY SOFT
8ac	ARGILLITE WITH RIBBON CHERT (QUARTZITE ?)
8al	LIMY ARGILLITE
8ag	ARGILLITE WITH GREENSTONE TUFF BEDS
8af	ARGILLITE WITH GREENSTONE FRAGMENTS
8g	GREENSTONE
8gt	GREENSTONE TUFF
8gf	GREENSTONE FLOW
8gc	CHERTY GREENSTONE
8L	LIMESTONE

AUTOCHTONOUS PLATFORM
DEVONIAN

7	McDAME GROUP, LIMESTONE, GREY-BLACK, FETID ; BLACK DOLOSTONE ; SPAGHETTI STONE

ORDOVICIAN, SILURIAN, DEVONIAN (?)

6	SANOPILE GROUP, INTERBEDDED QUARTZITE, DOLOSTONE, MINOR PHYLLITE

CAMBRIAN - ORDOVICIAN
KECHIKA GROUP

5	THIN BEDDED BLACK SHALES, VOLCANICS, ARGILLITES and LIMESTONE

DIAMOND DRILL HOLE

Lithologies | *Comments*

CONTACT
DIP OF CORE
INTERVAL DIVISION
FAULT
SHEAR ZONE
BRECCIA
C1 PETROGRAPHIC SAMPLE

Qtz - QUARTZ
Qzt - QUARTZITE
Chl - CHLORITE
Po - PYRRHOTITE

FEET 0 100 200 300 400 500 FEET
METRES 0 25 50 100 150 200 METRES

Brinco MINING LIMITED

CASSIAR - McDAME

SECTION 21500 N

DDH 84-1

DRAWN BY: I.L.	DATE: DECEMBER 1984	FIGURE 6
TRACED BY: C.D.	N.T.S. 104 P/5	
CHECKED BY: I.L.	APPROVED BY:	RPT. 6627