

6084

MAGNO, JEAN

104P/5W

D. Drilling

May - Nov. /76

V. Cukor, Nov. 76

Balfour M.L.

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MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

NO. 6084

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BALFOUR MINING LTD. (N.P.L.)

MAGNO PROPERTY

CASSIAR, B.C. AREA

1. INTRODUCTION

This report is prepared to describe the exploration work performed and results achieved on the Magno Property, in the Cassiar, BC area by BALFOUR MINING LTD. (N.P.L.) during the year 1976.

It also summarizes some of the work previously conducted by Coast Silver Mines Ltd.

The 1976 exploratory program consisted of diamond drilling executed in two stages, limited geophysical E.M. survey and limited bulldozer trenching. Late in the season, a 200 lb. sample, extracted from the 4850' adit was submitted to Britton Research Ltd. for metallurgical testing.

The two stages of diamond drilling were completed by D.J. Drilling Co. Ltd., Surrey, B.C. The first stage started in early June and finished by mid July. The second stage was completed in October. A geophysical survey was conducted during July by Presunka Geophysical Explorations Ltd. Bulldozer trenching, necessary road repairs and construction of drill sites was carried out by Grant Stewart Construction.

1. INTRODUCTION - Cont'd

Geological follow up work, mapping of drill core, sampling and overall supervision was by V. Cukor, P. Eng.

Unusually high snow falls last winter in the Cassiar area, combined with fairly cold spring and summer considerably delayed snow melting, resulting in some of the drill sites being established not in the most favourable locations, but in the only accessible areas. It also resulted in somewhat higher costs per foot of drilling than expected, due to slow-downs in the early part of the program and greater involvement of bulldozer than planned.

The camp facilities of Grant Stewart Construction at Cassiar, B.C. were used for the 1976 program. The camp is approximately two miles from the Magno claims, and consists of bunkhouse with hot water and shower facilities, cookhouse dining room, to accommodate thirty men. There is also a machine repair shop and direct telephone communication. This camp is available to Balfour Mining Ltd. for future development work on the Magno property.

2. SUMMARY

2.1 REVIEW

The silver-lead-zinc mineralization of Marble Basin is irregularly distributed along the magnetite-manganese shoots in lengths from 100' - 300' formed along the fissure, over 4,000 ft long. Over 3,000 ft of the fissure is on the Magno claims owned by Balfour Mining Ltd. (N.P.L.). The strike of the mineralized structures is east-west, with steep northerly dip. The width varies from a half foot to over 25', with an average of 8' - 10'. Mineralization is often associated with paralleling basic dykes.

The E.M.-16 survey encountered several conductive zones more or less coinciding with the previously known magnetic highs. A long north-south conductive zone, checked by the horizontal loop and then explored by drill hole M-16 contained graphite and argillite with disseminated pyrrhotite.

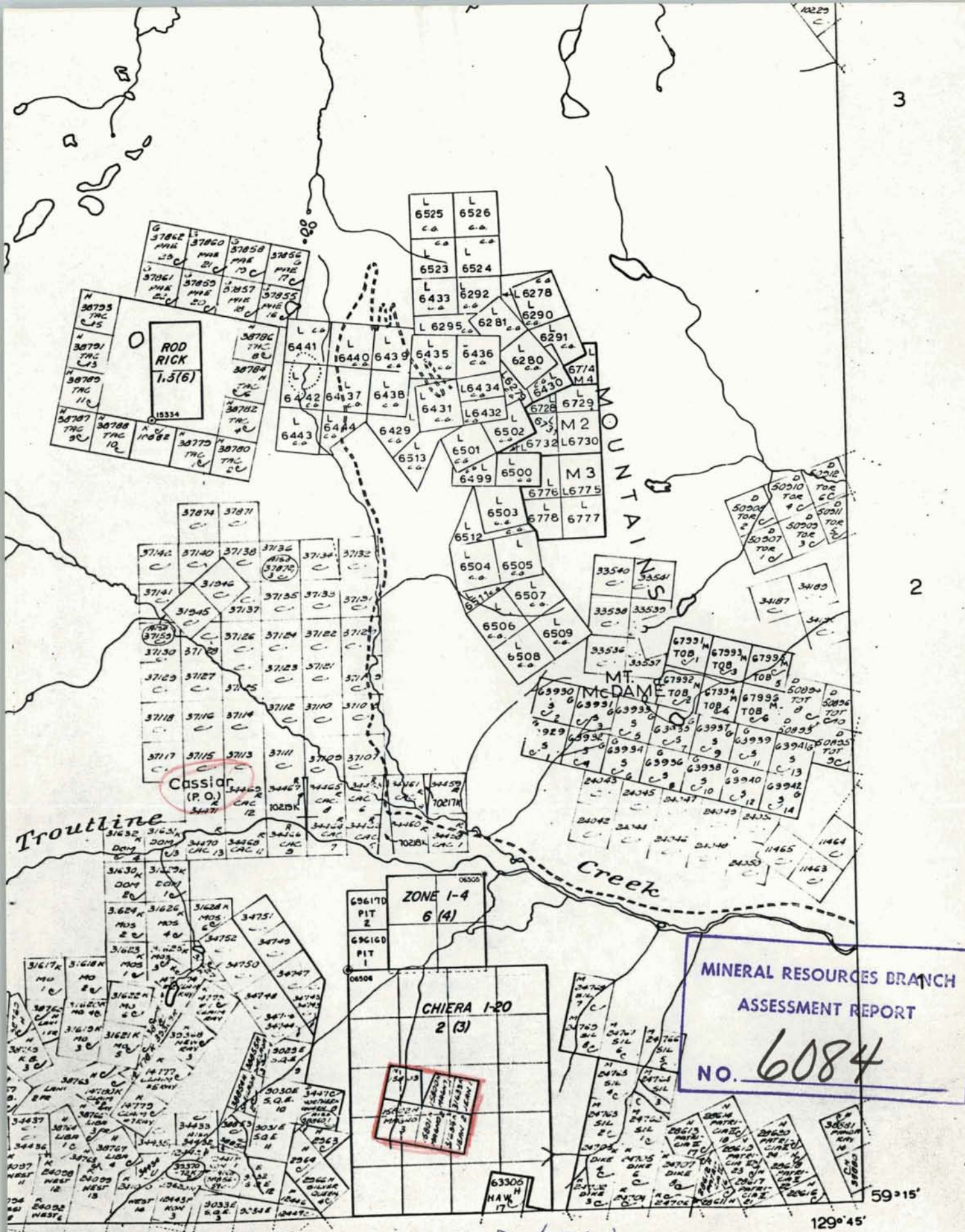
A total of 4,634' of diamond drilling was spent in an attempt to prove the downward extension of the mineralization in the areas with magnetic anomalies and/or surface mineral occurrences. The East and Middle West zones are two areas with drill indicated potential of 142,500 tons and 85,000 tons respectively. Both areas warrant more detailed exploration work.

2. SUMMARY - Cont'd

2.1 REVIEW

An additional 740' of drilling was carried out in the West zone where 72,500 tons of probable ore reserves, grading 9.18 oz/ton silver, 10.78% lead and 4.77% zinc and also 29,500 tons of possible reserves were outlined by the underground development of 1971. The 1976 drilling proved the persistence of the mineralization between the 4850' and the 5050' level adits. A total tonnage of ore developed in the West zone by this drilling has not altered much, but the portion of probable reserves has been increased to 87,000 tons averaging 8.54 oz/ton silver, 10% lead and 4.44% zinc plus additional low gold values.

A metallurgical test, still in progress at the present time, reveals that the ore can be separated from the magnetite by using a low intensity magnetic concentrator. Fair recoveries of 80.9% gold, 91.8% silver, 84.0% lead and 70.9% zinc were realized, but the grade of concentrate remained fairly low, running 0.045 oz/ton gold, 25.39 oz/ton silver, 27.74% lead and 7.28% zinc, with 2.6 tons of ore producing 1 ton of concentrate.



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TO SOUTH SEE MAP 104P/4W

104P/5W

129°45'

59°15'

Dec 13/76

MINES AND PETROLEUM RESOURCES

This map is prepared to serve as a guide to the positions of located mineral claims and/or Placer Min.

2. SUMMARY - Cont'd

2.2 CONCLUSIONS AND RECOMMENDATIONS

The Lower Cambrian Atan limestone hosts the silver-lead-zinc mineralization in the Marble Basin. Similar geological settings, where the same formation is associated with significant silver-lead-zinc deposits are known elsewhere in Northern British Columbia and the Yukon.

Exploration programs carried out to date, have developed significant tonnage of probable and possible reserves with an additional potential of drill indicated ore. The chances of expanding known mineralized bodies, as well as finding new ones, are considered to be excellent as surface drilling in most cases hardly exceeded a depth of 250' and the total length of the mineralized structure is known to be in excess of 4,000'. There is no doubt that deeper parts of the fissure also contain ore bodies of considerable size. The geophysics should carry the most important role in any further program to develop targets for deep diamond drilling.

The metallurgical test, so far, encountered positive results by obtaining fair metal recoveries. Further studies are essential in developing a method of upgrading the concentrate without substantial loss in overall recoveries.

2. SUMMARY - Cont'd

2.2 CONCLUSIONS AND RECOMMENDATIONS - Cont'd

A feasibility study should be conducted, after the completion of the metallurgical tests, with an object of outlining in detail the economics and applicable mining methods for a small scale operation.

3. PROPERTY

3.1 CLAIMS

The Magno claim group presently consist of six contiguous mineral claims. The following are the claim names, record numbers and recording dates:

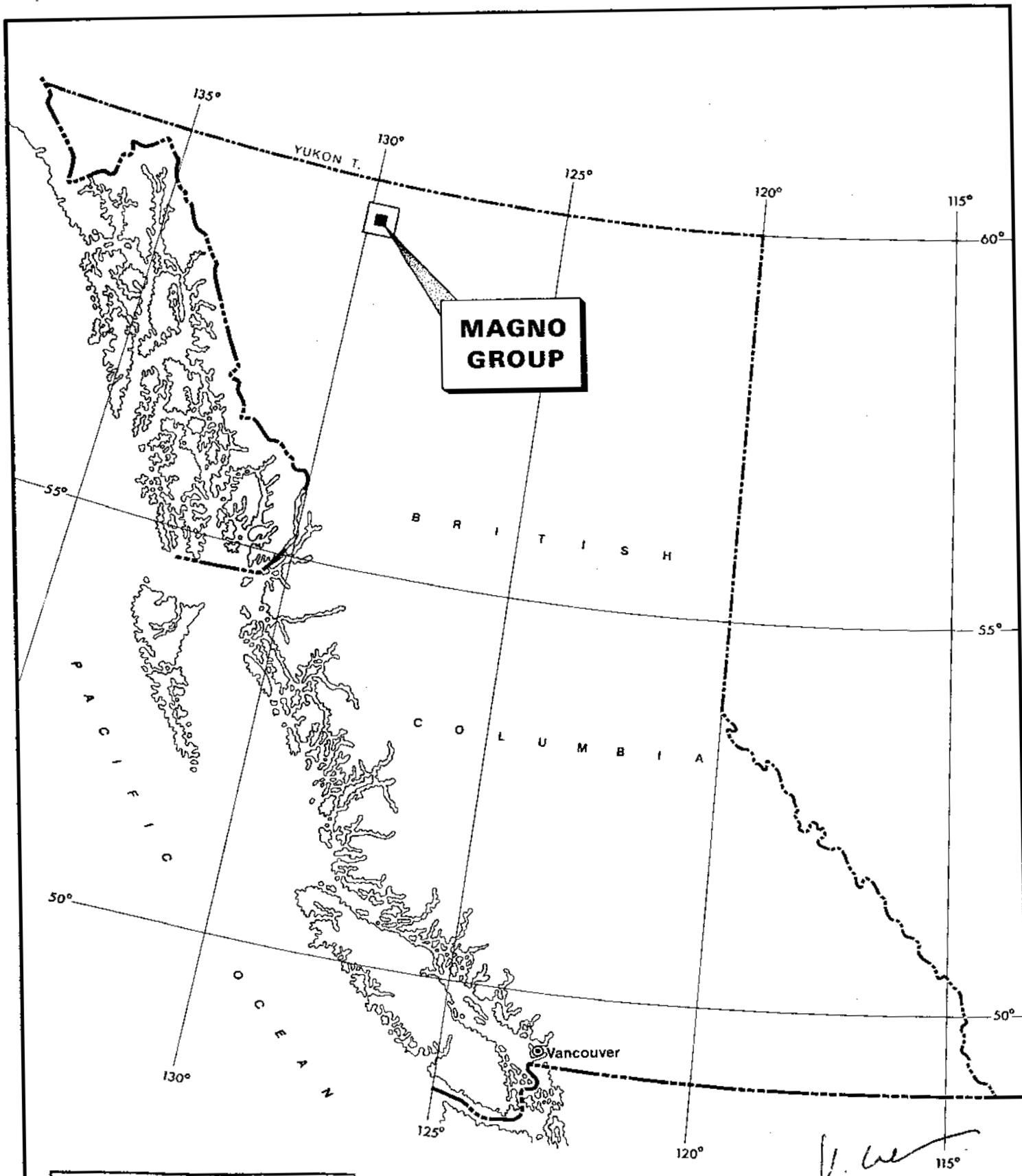
<u>Claim No.</u>	<u>Record No.</u>	<u>Anniversary Date</u>
Magno 1	15800	October 23, 1986
Magno 2	15801	October 23, 1986
Magno 3	15802	October 23, 1986
Magno 4	15803	October 23, 1986
Jean 1	31633	August 16, 1987
Jean 2	31634	August 16, 1987

In 1968 the Magno claims were purchased outright by Coast Silver Mines Ltd. from W. Storie, Cassiar, B.C. Coast Silver Mines Ltd. in turn sold the claims in 1975 to BALFOUR MINING LTD. (N.P.L.) retaining a 20% interest.

The claim boundaries are shown on Figs. 2 and 3, resulting from the survey of McElhanney Associates in 1969.

3.2 LOCATION

The claims are located in the Cassiar Mountains about three air miles S.E. of the community of Cassiar, B.C. They are in the Liard Mining Division on the N.T.S. 104-P-5(W) The centre of the claims is at approximately west longitude $129^{\circ}48'$ and north latitude $59^{\circ}30'$. The altitude of the property is fairly high between 4500' and 5500' above sea level. The approximate location is shown on Fig. 1 in the text.



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BALFOUR MINING LTD. (N.P.L.)	
MAGNO GROUP LOCATION MAP	
LIARD M.D.	104-P-4,5
VLADIMIR CUKOR, P. Eng.	VANCOUVER, B.C.
DATE: Nov. 1976	SCALE: 0 100 miles
	FIG. 1

3. PROPERTY - Cont'd

3.3 ACCESS

Approximately one mile of truck road connects Cassiar Highway with the bridge on Marble Creek where the East and West Forks merge at the northern limits of the Magno Claims. From that point truck roads branch in several directions providing an easy access to various parts of the property.

Cassiar, B.C. is in turn connected with Watson Lake, Y.T. with 100 miles of highway of which approximately two-thirds are paved. The closest connections to the railroad at present are Fort Nelson, some 430 miles and New Hazelton, 380 miles from Cassiar. The railroad to Dease Lake, now under construction will reduce this distance to approximately 80 miles.

Cassiar, B.C. is equipped with an airstrip suitable for D.C.3 landing and the closest jet service is from Watson Lake with daily flights to Vancouver and Edmonton.

3.4 TOPOGRAPHY

Marble Basin is an alpine basin surrounded by high ridges on the east, west and south sides. It slopes down gradually to the north toward Troutline Creek valley. The eastern and western slopes are fairly steep, consisting in places of steep, sheer walls with the grade averaging overall about 35°. The claims are located above the timber line, covered by

4. GEOLOGY

4.1 GENERAL GEOLOGY

The geology of the Cassiar area is presented in the GSC Memoir 319 by H. Gabrielse printed in 1963. The Memoir is accompanied by Map 1110A McDame, Sheet 104P in scale 1"=4 miles. According to the map, Cassiar area is on the western fringe of a broad sinclorium consisting of a succession of sedimentary and/or volcanic rock types, intruded locally by small irregular ultrabasic bodies. West and south of Cassiar is a large acidic intrusion of Cassiar batholith.

The Magno property covers the area underlain by the metamorphosed Atan sediments of the Lower Cambrian age. To the west, this rock type is bordered by the Lower Atan quartzites and on the east side it is overlain by the Kechika black shale. The intense metamorphism is the direct result of the nearness of the batholith which contacts the sedimentary complex only about 2,000 feet east of the property's eastern border.

4.2 LOCAL GEOLOGY

The predominant rock types forming Marble Basin area are limestone and dolomite (see Fig.2). The limestone is mostly of bluish grey colour, fine to coarse grained, generally well bedded. Usually thick bedded limestone is coarser grained and lighter in colour, while darker variety is finer grained and thin bedded to platy. Dolomite is mostly medium grained, massive

4. GEOLOGY - Cont'd

4.2 LOCAL GEOLOGY - Cont'd

light grey, yellowish or pinkish. Several zones of brown laminated argillite are interbedded with the limestone. Some of the laminations, up to 1" wide, are silicious, greenish from chlorite, and they carry up to 7% of magnetic pyrrhotite.

At the east limit of Marble basin, the Atan carbonates are in contact with overlain Kechika black shales. This rock type is intensely decomposed by weathering in the surface area resulting in a thick cover of black soil which transported down the steep hillside, covered the Atan-Kechika contact.

In general the strike of the formations is north south with an easterly dip. In various areas the dip angles were measured from 35° - 60° , averaging approximately 45° . A number of faults were detected, more or less paralleling the formations with the largest horizontal movement interpreted at about 400'. It is highly probable that even stronger faults or intense folding remains undetected as the total true width of Atan carbonates exceeds 3,000' in the Marble Basin, more than double the width recorded along the northern extension of the formation.

Several east-west striking fracture zones, vertical or with steep northerly dip cut the sedimentary complex. Basic dykes follow these zones and some of them also contain manganif-

4. GEOLOGY - Cont'd

4.2 LOCAL GEOLOGY - Cont'd

erous magnetite and limonite carrying silver-lead-zinc mineralization. The most pronounced one, with a surface exposure of over 3,000 feet in length, was the object of the extensive exploration program.

4.3 METAMORPHISM AND ALTERATIONS

Various intensities of metamorphism were noted throughout the Marble basin and hydrothermal alterations follow mostly fracture zones carrying dykes and/or magnetite mineralization.

The main product of metamorphism is marble, which varies in colour from pure white to yellowish, greyish or pinkish. It consists mostly of twinned calcite crystals from 2 - 5 mm in size, sometimes so loosely cemented that on the surface, rock weathers into "calcite sand" Marble is mostly massive, but locally the relics of bedding could be noted.

Dolomitization of limestone is very common along the mentioned fracture zones, but it also occurs along certain types of limestone far away from any other kind of mineralization. In such cases, dolomite forms are irregular, massive bodies with mostly gradational change into limestone in the contact zone. The dolomite is always fine to medium grained and only very occasionally is it coarse grained. The colour is, as a rule, light grey, but along the magnetite veins it changes into pink

4. GEOLOGY - Cont'd

4.3 METAMORPHISM AND ALTERATIONS - Cont'd

from disseminated fine rhodochrosite or it could be yellowish to brown from iron oxides.

The other alteration mineral is pale green chlorite commonly formed along the bedding planes and hairline fractures. Tremolite is usually found as radial crystals in limestone and dolomite but also appears sometimes as asbestos fibres along some of the open fractures. Fairly intense pyritization and silicification is noted in the limestone toward the eastern contact of the Atan formation, and the same type of alteration is widely spread out throughout the Kechika shales.

4.4 DESCRIPTION OF MINERAL SHOWINGS

Several magnetite-silver-lead-zinc fissure veins are known on the Magno property. The most prominent one, which was the object of the bulk of the exploration work in Marble Basin, extends from the Kechika contact, crossing the full width of the Magno claims toward the contact with the Lower Atan quartzites. It is known to be almost 4,000' long, of which approximately 3,000' lies within the Magno property boundaries. The structure strikes in a general east-west direction and dips from 70° - 80° to the north. It is followed, for most of its length, by the

4. GEOLOGY - Cont'd

4.4 DESCRIPTION OF MINERAL SHOWINGS - Cont'd

strong basic dykes. Along the structure, magnetite bearing mineralization of silver-lead-zinc, is irregularly distributed forming the shoots of up to 200' - 300' long and from several inches up to 25' wide averaging around 8' to 10'. A number of post ore crossfaults caused displacement of parts of the bodies in the northerly or southerly direction, clearly shown on the detail magnetometer map. Distortions of the galena crystals noted in the vein zone also indicate probable post ore movements along the fissure.

Most of the work so far was carried out in the parts of the zone referred to as the East and West zones with the area in between relatively untouched.

Several hypothesis have been offered to explain the origin of the mineralization. The most logical one is that mineralized solutions originating in the nearby intrusive of Cassiar batholith precipitated various minerals in the cracks in limestone along the already developed fissure, spreading locally along the bedding and crossfractures. This process was accompanied by the replacing of calcium by magnesium in the limestone walls, altering them into dolomite. The process of dolomitization was of various intensity in different localities and dolomite as well as dolomitic limestone or just recrystalized limestone

4. GEOLGY - Cont'd

4.4 DESCRIPTION OF MINERAL SHOWINGS - Cont'd

appear in the contact with the vein material.

The paragenesis of the Magno mineral deposit seems to be more complicated than anticipated at the beginning of the exploration by Coast Silver Mines Ltd. The main gangue minerals are magnetite, limonite, goethite and manganese oxide, probably pyrolusite. It was believed the main lead mineral to be galena with lead oxide and carbonate present only as local accessories. However, the chemical assays and metallurgical test proved that only 10% - 40% of lead in the western part of the vein is in galena form, the balance appears as oxide and/or carbonate. Almost the total zinc content in that area is in the form of hydrozincate and smithsonite. Toward the eastern limit of the vein, the metal content changes increasing considerably in zinc. The oxidation of the vein minerals is also much weaker and the main zinc mineral is brown to honey yellow sphalerite, while magnetite and galena appear fresh and unaltered. No silver mineral was recognized so far, but fairly regular ratio of almost 1oz silver to 1% lead should mean that silver is intimately connected with lead. Low values of gold were also recorded along the whole length of the mineralized structure, with significant increase toward its eastern limit where intense silicification and pyritization was also noted.

5. PREVIOUS EXPLORATION AND DEVELOPMENT

The Magno showings were discovered in the early 1950's when mineral claims were recorded in Marble basin for the first time. In 1954, 22½ tons of hand picked high grade silver lead ore was shipped to the smelter. In 1955 some drilling was completed by Silver Standard Mines Ltd. but no complete records were preserved. From 1956 - 1967 some airborne geophysical survey, trenching and geological mapping was done. In 1968 through 1971, Coast Silver Mines Ltd. (N.P.L.) conducted an extensive exploration program which will be described in more detail. This work was carried out under the field supervision of the author of this report, employed at that time by Peter H. Sevensma Consultants Ltd.

5.1 GEOCHEMISTRY

Only limited geochemical soil reconnaissance was carried out over the Magno property during the summer of 1969. Samples were collected along the contour line at about 200' intervals, at an elevation higher than known mineral showings. The follow up bulldozer trenching in the area with the peak lead value of 2100 ppm failed to encounter mineralization in place and the program was abandoned.

5. PREVIOUS EXPLORATION AND DEVELOPMENT - Cont'd

5.2 GEOPHYSICAL SURVEYS

The geophysical I.P. and ground magnetometer surveys were carried out by Seigel & Associates Ltd. in the fall of 1968 in the lower part of the Marble basin. A temporary grid was constructed for that purpose, with 400' lines and 200' stations marked by red flagging tied to rocks and clumps of grass. The I.P. survey revealed a long north south anomaly along the east side of the West fork of Marble Creek. Three diamond drill holes intersected only bands of argillite with fine pyrrhotite disseminated into silicious laminations. The magnetometer survey carried out along the east-west grid lines almost completely missed the narrow magnetic zone.

In 1969 the airborne magnetic survey by Seigel & Associates over the Coast Silver Mines property included the Marble Basin. The high magnetic anomaly over the ridge, west of Marble Basin fell north of the known magnetite veins and could be caused by a deeper situated large magnetite body. A ground magnetometer survey failed to pinpoint that anomaly.

In the summer of 1969 a new Magno grid was constructed for a detailed ground magnetometer survey. This survey outlined a narrow east-west magnetic zone offset in several places by local faults. This survey was used as a guide for the extensive drilling program. In the fall of 1975 the Magno grid was reinstated and some fill-in magnetometer survey completed.

5. PREVIOUS EXPLORATION AND DEVELOPMENT - Cont'd

5.3 DIAMOND DRILLING

A total of 11,993' in 45 diamond drill holes was completed by Coast Silver Mines Ltd. in 1968 and 1969. Drilling started in the east zone before any geophysical work was carried out and sufficient information on mineralization control was established. This resulted in drilling of vertical holes and angle holes from unsatisfactory locations. After completing the ground magnetometer survey in 1968, drill set-ups were planned on the north side of the magnetic high in an attempt to intersect the mineralization with inclined holes drilled southerly. Drilling was exercised in the eastern and western part of the zone, following magnetic highs while the middle part of the zone with only weak magnetic responses remained unexplored. In both east and west zones, a number of drill holes intersected mineralization of sufficient width and grade to indicate potential worthwhile planning and carrying out underground exploration. This program was undertaken during 1971.

A detailed description of the diamond drilling with the calculations of average grades, widths, and indicated tonnages was submitted in the report "Summary of Exploration" by P.H. Sevensma & Associates, January 7, 1970.

5. PREVIOUS EXPLORATION AND DEVELOPMENT - Cont'd

5.4 UNDERGROUND DEVELOPMENT

In late 1970 and early 1971, 1714' of underground development was carried out on the 4850' and 5050' levels in the West zone. In 1971 underground drilling totalling 2093' in 19 holes was completed from the 4850' level by Coast Silver Mines Ltd. In 1975 an additional 471' was drilled in 4 holes from the same level. The following ore reserves were outlined on the basis of this development.

Probable Reserves in three blocks above and below the 4850' level totalled 72,000 short tons, averaging 9.18 oz/ton silver, 10.78% lead and 4.77% zinc.

Possible Reserves, all above 4850' level totalled 29,500 short tons with no grade estimated.

Geologically Inferred Potential of some 385,000 tons of lower grade material was also reported.

6. EXPLORATION DURING 1976

Exploration work on the Magno property during 1976 was carried out by BALFOUR MINING LTD. (N.P.L.). Preparations started during the month of May with snow ploughing and road repairs. Drill and crew were moved on the property around the first of June.

During 1968, two core shacks had been constructed and all drill core stored in them for possible future use. Between 1971 and 1976 the shacks were broken into and the core dumped on the ground from the core boxes. To avoid such acts of vandalism in the future, it was decided to move the core storage and the part of the old core saved from destruction onto the property of W. Storie. Core from the 1976 program is now stored at the same place.

At the same time the drilling was started, limited geophysical E.M. survey was carried out over the Magno grid.

6.1 GEOPHYSICAL SURVEY

A re-established Magno grid was used by the operators, S. Presunka and P. Presunka of Presunka Geophysical Explorations Ltd. to carry out electromagnetic surveys. The instrument, Ronka E.M.-16 Ser. No. 2, operated by S. Presunka was used to explore the conductivity of the grid area. The conductive zones encountered were then checked out by the horizontal loop Ronka E.M.-17, Ser. No. 0117, using 200'

6. EXPLORATION DURING 1976 - Cont'd

6.1 GEOPHYSICAL SURVEY - Cont'd

cable separation. The signals from two V.L.F. stations were used for the E.M.-16 surveys: V.L.F. St. 18.6 Seattle, and V.L.F. St. 23.4 Hawaii.

The E.M.-16 survey was conducted over the entire grid area in an attempt to outline in greater detail mineralized sections and especially to find such galena bodies, if in existence, which would not be associated with magnetite mineralization. If successful, this survey would provide better guidance for planning the drill program. During the survey, special attention was paid to the area between the east and west zones where only low magnetic response was encountered by the ground magnetometer survey.

A number of conductive zones were picked up. A fairly weak east-west zone, coincided with the magnetic high in several locations, but in the area of low magnetic response no conductivity was encountered. The strongest conductivity was found at baseline 12W extending north and south, following the bedding structure for a length of over 1,000'. This zone also responded strongly to the horizontal loop survey. The drill hole M-16 located south of baseline at approximately 10W and drilled westward encountered the zone of limestone with graphite coating along the bedding planes, and also the zone of argillite with disseminated pyrrhotite, which are probably

6. EXPLORATION DURING 1976 - Cont'd

6.1 GEOPHYSICAL SURVEY - Cont'd

responsible for the anomaly.

Two long north-south E.M.-16 profiles were extended in a southerly direction from the baseline at 24W and 18W to the southern limit of the Magno claims. The strong east-west conductive zone was picked up approximately 1,200' from the baseline but icy slopes under the snow cover still present at the time, made further attempts for detailed surveys too risky.

6.2 DRILLING PROGRAM

A B.B. 17A drill was used to perform two stages of B.Q. drilling on the Magno property. A total of 4,634' was completed in June and July in 18 holes and an additional 740' in 5 holes was drilled during the month of October. The hole locations are shown on Fig. 3.

Drilling started in the East zone, the only accessible area early in the season, and moved successively westward. The first eleven holes were drilled in the East zone of which holes M-5 to M-8 were located west of the East Fork of Marble Creek. The drilling in the East zone was designed to explore the magnetic anomaly. A number of diamond drill holes were previously drilled in that area by Coast Silver Mines Ltd.

6. EXPLORATION DURING 1976 - Cont'd

6.2 DRILLING PROGRAM - Cont'd

in a very unsystematic fashion and the results were very difficult to assess. The holes drilled east of the East Fork intersected two mineralized zones, one containing high grade zinc accompanied by attractive gold values. The arithmetic grade averages and inferred tonnage potential for this area is shown in Table I.

The four holes drilled west of the East Fork explored the magnetic zone where mineral showings exist in two localities. Some of the previously drilled holes also intersected good values of which hole #2, 1968, was reported to assay 8' of 23.76 oz/ton silver, 19.15% lead and .39% zinc. The 1976 drilling failed to repeat any of these returns and only relatively low grade mineralization was intersected in the shallow holes (-45°) while steeper holes did not intersect the vein at all.

EAST ZONETABLE I

Hole	Angle	From	To	Feet	Au	Ag	Pb	Zn
M - 1	-45°	113.0'	132.0'	19.0'	.076	2.51	2.74	7.68
		208.0'	222.5'	14.5'	.013	4.22	4.01	3.68
M - 2		CAVED IN BEFORE REACHING MINERALIZED ZONE						
M - 3	-45°	91.0'	101.0'	6.0'	.004	1.28	1.87	7.38
		122.0'	134.0'	12.0'	.01	3.37	3.72	1.15
M - 4		LOW GRADE MINERALIZATION ONLY						
M - 9	-45°	207.0'	213.0'	6.0'	.01	2.92	3.87	.52
		266.0'	271.0'	5.0'	.004	5.98	6.58	1.51
M - 10	-45°	267.0'	280.0'	13.0'	.026	6.33	6.15	4.67
EAST ZONE AVERAGE				18.9'	.029	3.83	4.06	4.40

DRILL INDICATED POTENTIAL

300 x 175 x 19 ÷ 8 = 142,500 Short Tons

6. EXPLORATION DURING 1976 - Cont'd

6.2 DRILLING PROGRAM - Cont'd

Hole M-12 collared south of the baseline and drilled westward was planned to explore the north-south extended I.P. anomaly as well as the east-west magnetic zone. In the area with magnetic response, a 10' intersection of good grade mineralization was encountered but the I.P. anomaly seems to be underlain by the argillite stratum with fine disseminated pyrrhotite. Holes M-13, M-14 and M-15 followed the magnetic high and Table II summarizes the results in this area, which is referred to as the Middle West Zone. In the calculations of the grade averages no specific gravity is applied. Tonnage factor of 8 cu.ft. per short ton was used in calculations of drill indicated potential which is considered rather conservative due to high iron-manganese content in the gangue material. Tonnage figures could be considerably altered after completion of more detailed exploration as the downward limit of mineralization was not reached.

Holes M-17 and M-18 were drilled on the magnetic high accompanied by the E.M.-16 conductive zone, encountered in the area of outcropping mineralization, but no vein material was intersected in either hole.

MIDDLE WEST ZONE

TABLE II

Hole	Angle	From	To	Feet	Au	Ag	Pb	Zn
M - 12	-45°	48.0'	58.0'	10.0'	.004	5.03	6.88	7.36
M - 13	-65°	47.0'	57.0'	10.0'	.002	4.91	5.90	4.94
M - 14	-45°	182.0'	192.0'	10.0'		7.20	7.94	4.22
M - 15	-45°	183.0'	197.0'	14.0'		12.05	14.84	6.55
MIDDLE WEST ZONE AVERAGE				11.0'		7.54	9.43	5.84

DRILL INDICATED POTENTIAL

$350 \times 175 \times 11 \div 8 = \underline{\underline{85,000 \text{ Short Tons}}}$

6. EXPLORATION DURING 1976 - Cont'd

6.2 DRILLING PROGRAM - Cont'd

In the second drill stage, in October, five holes marked M-19 to M-23 were completed in the West zone. The holes were collared in the 5050' adit area on two setups and fanned out in southeasterly, southerly, and southwesterly directions. The purpose of drilling was to explore the area between 5050' and 4850' adits in an attempt to find out if the mineralized zone exists between the two levels joining two blocks of probable ore. The hole locations are shown on Fig. 3, 4, and 5 and averaged assays of the mineralized sections are as follows:

Hole	Angle	From	To	Feet	oz/t Au	oz/tAg	Pb	Zn
M-19	-40°	172.0'	188.5'	16.5'		5.20	6.02	1.87
M-20	-45°	160.0'	170.0'	10.0'		.55	.44	3.44
M-21	-60°	102.0'	109.0'	7.0'		3.25	3.61	2.44
M-22	-45°	79.5'	87.0'	7.5'		1.89	1.97	5.20
M-23	-45°	77.0'	89.0'	12.0'		.47	.72	2.45

The assessment of ore reserves of the West zone is shown later in the report.

In summary, the 1976 drill program produced decisively positive results. In the East and Middle West zones drilling outlined mineralized bodies of sufficient grade and size to warrant further more detailed exploration programs. In the West zone 1976 drilling left little doubt that the mineralized vein extends between 4850' and 5050' levels, connecting two

6. EXPLORATION DURING 1976 - Cont'd

6.2 DRILLING PROGRAM - Cont'd

previously reported blocks of probable ore. The grade of this additional area, however, is in question as the zone was intersected and sampled in too few sections for a proper assessment.

In whole, the 1976 drilling was exercised in a professional manner, with excellent core recovery in the wall rock. Unfortunately the recovery of the vein material was comparable to past drill programs, the difficulties arising from the fracturing as well as deep oxidation of the vein.

All drill logs and assay tables are appended at the end of the report.

6.3 TRENCHING

Four trenches were excavated in the West zone over the magnetic anomaly with trench #1 located approximately 90' south of the 5050' portal, the others following the anomaly successively westward. Trenches #1, #2, and #3 exposed the vein and the following assay results were reported by General Testing Laboratories.

6. EXPLORATION DURING 1976 - Cont'd

6.3 TRENCHING - Cont'd

Trench #	Sample #	Width	oz/t AG	%Pb	%Zn
1	0576	6	37.43	40.01	5.68
2	0577	14	13.55	15.35	2.60
3	0578	6	11.65	14.20	3.27

The sample from trench #2 was selected from the bottom part where the vein appeared to be widest. In all three trenches, the basic dyke appears adjacent to the vein on its south side.

Trench #4 failed to reach the bedrock and a 10' sample was selected in the broken material believed to be very close to the actual bedrock. The sample returned the following values: 10.20 oz/t silver, 15.50% lead and 1.80% zinc. The trench was abandoned before completion due to caving. Location of trenches is shown on Fig. 4.

7. WEST ZONE ORE RESERVES ESTIMATE

It has been reported that underground development, combined with both surface and underground core drilling outlined 72,000 tons of probable ore in three blocks and additionally 29,500 tons of possible ore (see Report by V. Cukor, December 1975). The term "possible ore" was fairly loosely used as not enough evidence was obtained that the mineralization indeed extended from the 5050' level through to the 4850' level.

Recent trenching encountered the vein in the 5050' portal area in three out of four excavations and also all five drill holes M-19 to M-23 intersected the vein between the 4850' and the 5050' levels. These results prove beyond little doubt that mineralization extends downward from surface to the 4850' level forming one ore shoot (see Fig 5 Block "A"). The widths of the vein intersections, being from 6' - 14' fell in line with the previously estimated average widths of 7', but the grade of intersections of the core holes was lower than average, except for hole M-19. The average grade, computed from the chemical assays of two trenches and five holes, excluding the results of trench #1 as extraordinarily high, is 5.39 oz/ton silver 6.20% lead, and 2.83% zinc over the average sample length of 10.42 feet. The total probable ore reserves developed

7. WEST ZONE ORE RESERVES ESTIMATE - Cont'd

above the 4850' level are now: 45,00 short tons of 10.44 oz/ton silver, 11.75% lead and 4.47% zinc for an increase of approximately 15,000 tons . The possible reserves are now decreased accordingly.

The summary of ore reserves in the West zone, after completion of the 1976 program stands as follows:

Probable Ore

Block	Tonnage	oz/ton Silver	% Lead	% Zinc
Block "A"	45,000	10.44	11.75	4.47
Block "B"	42,000	6.50	8.14	4.40
Total	87,000	8.54	10.00	4.44

Possible Ore

Block "C"	7,600
Block "D"	9,100
Total	16,700

In the ore reserves calculations, a tonnage factor of 7 cu.ft. per ton was used versus 6.8 used previously. This value is arrived at by calculating the average specific gravity of ore from the chemical assays using the following formula.

7. WEST ZONE ORE RESERVES ESTIMATE - Cont'd

$$D = \frac{100}{\frac{a}{d_a} + \frac{b}{d_b} + \frac{c}{d_c} + \frac{n}{d_n}}$$

where a,b,c ---n = contents of particular mineral in %
d_a,d_b,d_c, d_n = specific gravities of particular mineral

For the samples with different mineral content, the calculated specific gravities varied from 4.22 to 5.00 with corresponding tonnage factors 6.4 to 7.6. Britton Research reported that specific gravity of the sample submitted for the metallurgical test was 4.38, and the tonnage factor 7.3.


The metallurgical test on the 200 lb sample extracted from the 4850' adit is being carried out by Britton Research Ltd. and the final report has not yet been received. In the first series of tests, the ore was subjected to flotation process. Approximately 50% of the silver, less than 40% lead and practically no zinc was recovered. The chemical assays performed on various samples revealed that practically all zinc and at least 60% of the lead are present in oxide and/or carbonate forms. Better success was achieved with a low intensity magnetic separation with recoveries of 80.8% gold 91.8% silver, 84.0% lead and 70.9% zinc. However, the grade of the produced concentrate was still fairly low with .045 oz/ton gold, 25.39 oz/ton silver, 27.74% lead and 7.28% zinc.

7. WEST ZONE ORE RESERVES ESTIMATE

Additional tests are programmed with the object to upgrade the concentrate, keeping the decrease of recovery to a minimum.

The ore reserves developed to date are sufficient for a small scale operation. The economics of such a venture will depend upon the successful completion of the metallurgical tests. On receipt of the final report from Britton Research an appendix to this report will be prepared with detailed calculations of ore and economics of mining and milling.


November 1976


V. Cukor, P. Eng.

CERTIFICATE

I, VLADIMIR CUKOR, P. ENG., of 2841 West 18th Avenue
Vancouver, B.C. do hereby certify:

1. That I am a Geological Engineer
2. That I graduated from the University of Zagreb, Yugoslavia
in 1963.
3. That I am a Registered Professional Engineer in the Geological
Section of the Association of Profession Engineers of the
Province of British Columbia
4. That I have practised my profession as a Geological Engineer
for the past 13 years both in Yugoslavia and Canada
5. That I have personally supervised and/or carried out the
work on the Magno project
6. That I have no interest in any of the securities or
properties of BALFOUR MINING LTD. (N.P.L.) nor do I expect
to acquire or receive any.


V. CUKOR, P. Eng.

DATED AT VANCOUVER, B.C. THIS 22
NOVEMBER 1976

DAY OF

SUMMARY OF COSTS

1976 MAGNO PROGRAM

WORK	COMPLETED BY	COST
Bulldozing, trenching drill sites	Grant Stewart Construction Cassiar, B.C.	12,526.50
Diamond Drilling	D.J. Drilling Co. Ltd. Surrey, B.C.	85,703.19
Assaying	General Testing Laboratory Vancouver, B.C.	2,478.79
Geophysical Survey	Presunka Geophysical Ltd. Vancouver, B.C.	1,250.00
Truck Rental	Vanir Enterprises Ltd. Vancouver, B.C.	3,077.00
Food & Lodging	Grant Stewart Construction Cassiar, B.C.	4,403.73
Field Expenses, Travel Casual Wages, Fuel, Freight, etc.		6,726.58
Engineering	V. Cukor, P. Eng)	23,274.24
Field Wages)	
Metallurgical Testing	Britton Research Ltd.	<u>6,000.00</u>
		<u>\$145,440.03</u>

V. Cukor

APPENDIX "A"

AFFIDAVIT

I, VLADIMIR CUKOR, P. ENG., of 2841 West 18th Avenue,
Vancouver, B.C. hereby declare:

In the matter of the Magno Group, Exploration Program
1976, and the list of personnel employed and costs incurred as
listed in the summary of costs of this report, that I have
inspected and/or carried out personally the work and that the
information contained is true and accurate to the best of my
knowledge and belief.



VLADIMIR CUKOR, P. ENG.

APPENDIX "B"

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M1

Hole No. M1

Lot 1 + 30 S Total Depth 241'

Section _____

Dep. 1 + 20 E Logged by V. Cukor

Date Begun June 5, 1976

Bearing 139°

Date Finished June 6, 1976

Elev. Collar _____ Date _____

Date Logged _____

Dip -55° Claim Magno 1 & 2

Core Size B.Q.

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 34.0			No core, casing		
34.0 - 112.0			Bluish grey, well bedded to laminated limestone, with white calcite patches. Bedding at 20 - 25° to core axis. Irregular fractures and vugs filled with calcite throughout. Tremolite crystals along fractures as well as in rock. Bedding irregular and in places stylolitic. From 75' to the end of the interval some fine pyrite crystals appear along the fractures as well as disseminated into rock. From 80 - 102' zone of fairly intense silicification. Toward end of interval, manganese stain appears along the fractures and also increase of limonitic stain. Bedding shows folding and rock is intensely fractured and brecciated.		
112.0 - 120.5			Silicious dolomite, fractured, with some pyrite and also manganese stain along fractures. Rock is in places fairly porous and pyritization in some of the bends increases considerably. Magnetite, sphalerite and galena appear along the fractures and in vugs. Stronger mineralization starts at 113'.		
120.5 - 124.5			Dolomite with galena and black sphalerite with some chalcopyrite also present.		
124.5 - 134.0			Dolomite (as in 112 - 121) not so silicious, with sphalerite in the fractures. Stronger mineralization (sphalerite) at 124.5 - 126, and at 132 it almost dies out.		

DEPTH	Core Recovered		Hole - M1 - Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
134.0 - 208.0				Bluish grey limestone, the same as at the start of the hole Stylolitic bedding at 25 - 30° to core. Calcite in irregular fractures and vugs and toward the end of the interval increased amount of limonitic gouge along the fractures.		
208.0 - 222.5				Mineralized section. From 208 - 211 sphalerite and galena, 211 - 216 dolomite with galena in fractures. This section is badly broken and part of galena has been ground up and not recovered. 216 - 220 is mostly magnetite with some galena section from 220 - 222.5 contains dolomite with hydrozincite and what appears to be sphalerite (?) some fine grained galena and pyrite also noted.		
222.5 - 241.0				gradational change into bluish grey limestone as above. More vugs and open fractures with calcite crystals.		
241.0				End of Hole		

V. Lee

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-2

Hole No. M-2
 Section _____
 Date Begun June 6, 1976
 Date Finished June 8, 1976
 Date Logged _____

Lot 1 + 30 S Total Depth 213'
 Dep. 1 + 20 E Logged by: V. Cukor
 Bearing 139° Date _____
 Elev. Collar _____ Claim Magno 1 & 2
 Dip -80° Core Size B.Q.

V. CUKOR, P. ENG.
 VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 37.0			Casing - no core		
37.0 - 179.0			Bluish grey limestone with irregular to stylolitic bedding. Irregular fractures and cavities are filled with calcite. Tremolite fibers and zincite found in some of fractures. Core is badly broken in places and recovered are fragments of up to 1". At 62' about 4" of grey, dolomitic sand and gouge recovered, with the core badly broken on both sides. At 87 - 92 well marked bedding at 45° to core axis. Around 99' noted some open cavities with calcite crystals. From 85' the bedding angle gradually changes to 30° to core. From 85' to the end of the interval solid rock with excellent core recovery.		
179.0 - 213.0			Dolomite, in places ground up (recovered rounded pieces 1" - 2" in diameter) From 179 - 184 only 1' of core recovered. Calcite and limonitic gouge along the irregular fractures.		
213.0			Walls of hole caved in and rods stuck. Hole abandoned short of reaching estimated depth of mineralized section.		

V. Cukor

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-3

Hole No. M-3
 Section _____
 Date Begun June 8, 1976
 Date Finished June 10, 1976
 Date Logged _____

Lot 1 + 20 E
 Dep. 1 + 30 S
 Bearing 167°
 Elev. Collar _____
 Dip -45°

Total Depth 305'
 Logged by V. Cukor
 Date _____
 Claim Magno 1 & 2
 Core Size B.Q.

V. CUKOR, P. ENG.
 VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 36.0			No core - casing		
36.0 - 89.0			Bluish grey limestone, with obscure bedding. Rock is brecciated with fragments recemented with calcite. At the start of the interval core is broken in small fragments. From 60 - 72' rock is intensely silicious and some of the fractures filled with an amorphous quartz are up to 2" wide.		
89.0 - 150.5			<p>Light to dark grey dolomite, crystalline limestone and crystalline dolomite mineralized with some sphalerite, galena, occasional magnetite and pyrite.</p> <p>91 - 97 - fractured dolomite carrying sphalerite and galena. Sphalerite mostly occupies fractures while very fine grained galena is disseminated into the rock mostly at the start and the end of the interval. Some galena also appears along the bedding planes.</p> <p>97 - 99 - higher grad section - mostly black sphalerite with some galena visible, minor pyrite also present.</p> <p>99 - 101 - dolomite with fair sphalerite and some galena mostly along the fractures.</p> <p>101 - 108 - crystalline, bluish grey limestone with bedding well pronounced at 30° - 40° to core axis. Limonite staining appears along tight fractures. Some minor galena appears at the start of this interval.</p>		

DEPTH	Core Recovered		Hole - M-3- Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
			108 - 112 - bluish grey crystalline dolomite. Some sphalerite galena, magnetite and pyrite appear along the fractures. Limonite staining also present. Rock is mostly solid and only in some small intervals is fractured.			
			112 - 118 - fractured dolomite with some minor galena, sphalerite pyrite. At the end of the interval dolomite is fresh and silicious.			
			118 - 134 - bluish grey dolomite with fair galena in fractures along bedding plans and also as fine grained impregnations in rock. Last four feet of interval appear to be fairly high grade.			
			134 - 148 - fresh dolomite with bands of galena mineralization grading from poor to fair.			
			148 - 150.5 only very minor galena.			
150.5 - 225.5			Bluish grey limestone, with irregular bedding marked with calcite lines. First 3' of interval appears to be fairly dolomitic. From 162 -167' rock is extremely fractured and recemented with calcite. One of the fractures containing calcite is 3" wide. Angle of bedding changes rapidly from 30° to 80° and back to 25° to core axis indicating folding.			
225.0 - 231.0			Brown argillite with silicious bands. Calcite appears in irregular fractures, and some of the fracture walls are coated with fine grained pyrite.			
231.0 - 234.0			Light grey, medium grained dolomite with extensive limonite staining along fractures.			
234.0 - 248.0			Bluish grey limestone, well bedded to laminated, with laminations at 45° to core.			
248.0 - 250.0			Blownish, argillite with greenish silicious bands. In places rock is fractured with fine grained quartz along fractures.			

DEPTH	Core Recovered		Hole - M-3 - Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
250.0 - 305.0				Bluish grey limestone, laminated to well bedded, with changes in bedding from 35° - 50° to core. In some zones limestone is dolomitized and around 285' slightly argillicious. Calcite and occassional limonite appears along the fractures.		
350				End of Hole		

V. C.

ASSAY LOG

COMPANY BALFOUR MINING LTD. (N.P.L.) PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-3

V. CUKOR, P. ENG.
VANCOUVER, B.C.

ASSAYED by GENERAL TESTING LABORATORIES DATE June 21, 1976

SAMPLE No.	From	To	Feet	oz/tAu	oz/tAg	%Pb	%Zn					
0509 R	91	95	4	0.004	0.14	0.25	0.96					
0510 R	95	97	2	0.003	1.01	1.40	2.16					
0511 R	97	99	2	0.003	0.31	0.68	14.92					
0512 R	99	101	2	0.008	2.53	3.54	5.07					
0513 R	101	108	7	0.004	0.52	0.76	0.76					
0514 R	108	112	4	0.005	0.33	0.51	1.42					
0515 R	112	116	4	0.004	1.41	2.00	1.50					
0516 R	116	118	2	0.002	0.12	0.25	0.36					
0517 R	118	122	4	0.004	1.68	1.98	0.84					
0518 R	122	126	4	0.004	2.02	2.30	1.18					
0519 R	126	130	4	0.004	1.69	1.94	2.06					
0520 R	130	134	4	0.022	6.42	6.92	0.20					
0521 R	134	138	4	0.004	0.52	0.68	0.38					
0522 R	138	142	4	0.009	2.38	3.00	0.92					
0523 R	142	146	4	0.008	0.50	0.43	0.76					
0524 R	146	148	2	0.012	4.76	4.40	3.29					
Averages	97	101	4		1.42	2.11	10.00					
Averages	122	134	12		3.34	3.72	1.14					
	118	148	30		.59	.65	.27					

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-4

Hole No. M-4
 Section _____
 Date Begun June 10, 1976
 Date Finished June 11, 1976
 Date Logged _____

Lot 1 + 30 S Total Depth 227'
 Dep. 1 + 20 E Logged by V. Cukor
 Bearing 167° Date _____
 Elev. Collar _____ Claim Magno 1 & 2
 Dip -65° Core Size B.Q.

V. CUKOR, P. ENG.
 VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 36.0			Casing - no core		
36.0 - 51.0			Bluish grey limestone, somewhat brecciated at the start of the interval, with calcitic cement. Around 45' the bedding at 45° - 50° to core axis.		
51.0 - 79.0			Fine grained, grey dolomite, fractured with calcite along the fractures in places up to 1" wide. Some open vugs also noted. at 55' core is badly broken and it is recovered as rock fragments mixed with yellowish grey gouge. At 63' to 66' the fractures are filled with auriferous silica. After that interval rock appears brecciated and is becoming somewhat argillaceous. From 71 - 78' rock is badly fractured with calcite filling in fractures. At the end of this interval some of core was rounded by drilling. From 78 - 79' is a gradual change into grey limestone.		
79.0 - 119.0			Bluish grey limestone with stylolitic bedding, at the start of interval almost parallel to core. From 87' bedding is well pronounced at 35 - 40° to core axis. Rock is very solid and core is recovered in pieces of up to 2' long. From 97' limestone becomes coarse grained. At 105' some very minor, fine grained galena is impregnated into fresh rock. At 107' - 109' rock is intensely fractured with black and brown gouge in fractures. Between 118' - 119' folding is noted on the core.		

DEPTH	Core Recovered		Hole - M-4 Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
119.0 - 124.0				Grey dolomite, fractured with white calcite and recrystallized dolomite patches. Yellow iron oxide stain is widespread. From 119' - 124' some irregular fractures with minor sphalerite and occasional magnetite. This zone seems to correspond with the mineralized zone in Hole M-3.		
124.0 - 204.5				Bluish grey crystalline limestone. Some irregular to stylolitic lines mark the bedding at 40° to core axis. Small amounts of pyrite and galena are found in irregular fractures and along the bedding planes. Galena mineralization stops at approximately 162' while slight pyritization continues for another 15'. Irregular calcite veins are noted throughout the interval and in some instances are noted smaller zones of coarse recrystallization and sporadically porosity is developed. At 181' is a zone of cavities filled with clear calcite crystals. At 196' is a zone of 1' of argillicious limestone. At the end of the interval the rock is laminated at 45° to core with darker laminations becoming increasingly dolomitic.		
204.5 - 227.0				Grey, crystalline dolomite, fractured and somewhat porous. Fractures are filled with calcite and white crystalline dolomite with occasional pyrite. Some of the vugs and fractures carry rusty limonite stain. Some of the core is badly fractured and recovered as small angular fragments.		
227.0				End of Hole		

V. Lee

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-5

Hole No. M-5
 Section _____
 Date Begun June 12, 1976
 Date Finished June 13, 1976
 Date Logged _____

Lot 1 + 85 S Total Depth 214'
 Dep. 3 + 30 W Logged by V. Cukor
 Bearing 186° Date _____
 Elev. Collar _____ Claim Magno 1 & 2
 Dip -45° Core Size B.Q.

V. CUKOR, P. ENG.
 VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 11.0			Casing, no core		
11.0 - 35.0			Light grey dense dolomite, fractured, in places somewhat crystalline. Fractures stained with brown iron oxides, manganese forming dendrites and occasionally pink rhodochrosite. In some of the fractures dark grey gouge.		
35.0 - 36.0			White, coarse grained marble, somewhat porous and fractured with the same minerals as fracture filling as in dolomite. Upper contact fairly sharp at approximately 45° to core axis.		
36.0 - 68.0			The same dolomite as at the start of the hole, in places badly fractured. At 42', 6" of limonite-manganese. In some small zones dolomite is impregnated with iron and manganese oxides and has "burnt" appearance.		
68.0 - 99.0			Bluish grey limestone with pronounced bedding at 45° to core. First 10' brecciated with white calcite cement, and also calcite as a filling in irregular fractures up to 2" wide. Good recovery.		
99.0 - 114.0			Mineralized section: - from 99' - 101' is magnetic dolomite with minor galena visible. - 101' - 103.5' little better galena and minor sphalerite. 103.5- 106.0' is mostly manganiferous magnetite with specks of galena. 1' of core lost in the interval. 106.0- 110.0' is dolomite with magnetite and some galena. 110.0- 114.0' poorly recovered, broken up magnetic dolomite (only 1½' of core recovered).		

DEPTH	Core Recovered		Hole - M-5 - Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
114.0 - 214.0				Light grey dolomite, fractured with limonite, manganese oxides along fractures. Core is mostly broken in small irregular fragments.		
				131.0' - 133.0' rock is more brecciated with limonite in cement.		
				133.0' - 135.0' darker, more limey dolomite, slight fizz with white laminations marking bedding at 40° - 45° to core.		
				155.0' few fractures filled with pyrite and minor sphalerite.		
				160.0' - 161.0' band of grey limestone banded at 48° to core Rock is much more solid and core is recovered in pieces 1" - 12" long.		
				181.0' - 183.0' manganiferous dark dolomite. Along last 1' of interval the rock gradually changes into bluish grey limestone, laminated at 40° to the core.		
214.0'				End of Hole		

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DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. MOLE No. M-6

Hole No. M-6

Lat. 1 + 85 S

Total Depth 171'

Section _____

Dep. 3 + 30 W

Logged by V. Cukor

Date Begun June 13, 1976

Bearing 186°

Date _____

Date Finished June 14, 1976

Elev. Collar _____

Claim Magno 1 & 2

Date Logged _____

Dip -65°

Core Size B.Q.

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 8.0			No core, casing		
8.0 - 11.0			Rounded pieces of grey dolomite, might still be overburden or broken up part of bedrock. Only 8" of core recovered.		
11.0 - 59.0			Light grey dolomite, very fractured, with some manganese oxides along fractures. Limonite stain widespread and some rhodochrosite also appears along some of the fractures. Most of core is recovered as small angular fragments. Rock is quite massive with no bedding apparent. In places vugs with calcite crystals. From 52' - 55' more rhodochrosite. Last 2' of interval rock is intensely becciated with calcite cementing rock fragments which are gradually changing into grey limestone.		
59.0 - 99.0			Bluish grey laminated limestone with laminations at 45° to 50° to core. Some of laminations are brownish argillite. Rock is medium grained calcite and occasionally fine pyrite coating along irregular fractures. At the start of the interval rock is intensely vuggy with clear calcite crystals in some of open pores. At 86' - 92' coarser grained discoloured recrystalized rock.		
99.0 - 114.0			Light grey to medium grey, medium grained dolomite. Contact to limestone is gradational. Rock shows more intense fracturing than limestone, with limonite and rhodochrosite along fractures.		
			104.0' - 105.0' brecciated grey laminated limestone.		
			105.0' - 106.0' very fractured rock impregnated with limonite manganese (this might be lower extension of vein in hole M-5).		

DEPTH	Core Recovered		Hole - M-6 - Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
114.0 - 121.0				Grey limestone in places coarse grained, fractured and in places brecciated.		
121.0 - 126.0				Light grey to darker grey dolomite, fractured with limonite and occasional rhodochrosite in fractures.		
126.0 - 133.0				Dark grey limestone, brecciated, fractured, vuggy with calcite in irregular fractures. Intense manganese staining.		
133.0 - 165.0				Fractured dolomite, dense, medium grained, fairly light grey		
				136.0' - 137.0' two fractures approximately 2" each with limonite, manganese, slightly magnetic. Dolomite around and between fractures is impregnated with manganese.		
				149.0' - 154.0' rock fragments, gouge, limonite, manganese All badly fractured and core recovery poor.		
				154.0' - 156.0' fractured dolomite, limonite, stained, recovered in pieces of up to 1".		
				156.0' - 165.0' core recovery improved to excellent. At 159' - 6' of argillite.		
165.0 - 171.0				Brown massive argillite, dense, medium grained, fine pyrite and pyrohotite disseminated into rock.		
171.0				End of Hole		

V. W.

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-7

Hole No. M-7

Lot 1 + 85 S

Total Depth 237'

Section _____

Dep. 3 + 30 W

Logged by: V. Cukor

Date Begun June 15, 1976

Bearing 227°

Date _____

Date Finished June 15, 1976

Elev. Collar _____

Claim Magno 1 & 2

Date Logged _____

Dip -45°

Core Size B.O.

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 9.0			No core, casing		
9.0 - 13.5			Coarse, light grey marble.		
13.5 - 50.0			Fractured, dolomite, light grey, dense, medium grained. Rock is badly fractured with gouge, limonite and rhodochrosite in fractures. From 25' dark green chlorite appears along some of the fractures. From 39' to end of interval dolomite becomes darker grey and finer grained. Some laminations appear at 60° - 65° to core.		
50.0 - 89.0			Bluish grey, fine grained limestone, irregularly banded at 50° - 60° to core. White, fine grained calcite along some of the very irregular fractures. 62' very irregular fractures almost parallel to core, filled with grey gouge. 72' 1" wide fracture with coarse white calcite at 20° to core. From 52' irregular bedding changing from 65° to almost 90° to core. 78' about 1' of recrystallized limestone with limonite in fractures (the largest 3" wide). Some magnetite crystals disseminated into rock for approximately 3".		
89.0 - 131.0			Dolomite, medium to light grey. Fairly sharp contact to limestone at 90° to core. Limonite, rhodochrosite and occasional green chlorite along the fractures. At 98' - 5" of slightly magnetic manganiferous limonite followed by 1' of crystalline marble (fizz) At 126' zone of magnetic manganiferous limonite with some hematite about 1' wide. At 129' - 131' limonite and gouge. Core lost except for two small rounded pieces.		

DEPTH	Core Recovered		Hole - M-7 - Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
131.0 - 146.0				Basic dyke, dark, fine grained, some pyrite appears at the start of the interval.		
146.0 - 151.0				Light grey dolomite, fractured with calcite, limonite and some manganese along fractures. In places the rock becomes almost brown, rusty in colour from limonite impregnation.		
151.0 - 210.0				Bluish grey, medium grained limestone laminated at 75° - 80° to core. Some fractures filled with calcite, but rock in general is solid with excellent recovery. At 174' the rock becomes coarser grained for at least 20' with zones of re-crystallized massive marble. At 182' about 1' of brecciated rock with red iron oxide.		
210.0 - 222.0				Massive, medium grained to coarse grained grey dolomite. Rock is fairly solid with some limonite and minor rhodochrosite in hairline fractures.		
222.0 - 237.0				Bluish grey, coarse limestone, bedding apparent at 85° to core. Rock is fairly solid with an excellent recovery.		
237.0				End of Hole		

V. G.

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-8

Hole No. M-8
 Section _____
 Date Begun June 15, 1976
 Date Finished June 17, 1976
 Date Logged _____

Lot 2 + 05 S Total Depth 286'
 Dep. 6 + 00 W Logged by V. Cukor
 Bearing 185° Date _____
 Elev. Collar _____ Claim Magno 1 & 2
 Dip -45° Core Size B.Q..

V. CUKOR, P. ENG.
 VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 36.0			No core, casing		
36.0 - 40.0			Bluish grey, coarse grained limestone with indications of bedding at 20° - 35° to core. Some porosity and fracturing appear with minor limonite in fractures.		
40.0 - 60.0			Coarse grained, recrystallized light grey dolomite in places brecciated with coarse dolomite and calcite crystals in fractures up to 2" wide. Iron oxides and green dolomite appear along some of the fractures.		
60.0 - 218.0			Coarse limestone, in places bluish grey laminated, in places white, recrystallized marble with gradational changes from one into another. Irregular laminations change angle from 50° - 75° to core. 71.0' - 73.0' zone of dolomitization 91.0' - 95.0' zone of very coarse grained marble 124.0' - 132.0' zone of very coarse grained marble 157.0' very regular bedding at 28° to core axis In general the rock is fairly solid with minor iron oxides and some rhodochrosite along hairline fractures. Core recovery excellent.		
218.0 - 221.0			Basic dyke, medium grained, dark, fractured with iron oxide along fractures.		
221.0 - 286.0			Coarse, bluish grey limestone, with bedding changing from 70° to 30° to core. From 240' rock becomes coarse crystallized and discoloured with bedding diminishing. Towards end of interval bedding appears again and colour changes back to bluish grey.		
286.0			End of Hole		

V. Cukor

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-9

Hole No. M-9

Lot 0 + 80 N

Total Depth 295'

Section _____

Dep. 2 + 60 E

Logged by: V. Cukor

Date Begun June 18, 1976

Bearing 165°

Date _____

Date Finished June 22, 1976

Elev. Collar _____

Claim Magno 1, Jean 1

Date Logged _____

Dip -45°

Core Size B.Q.

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 23.0			No core, casing		
23.0 - 74.0			Dark grey to medium grey crystalline dolomite. Rock is in places fractured with grey gouge, yellow limonite and tremolite crystals along the fractures. Some of the open fractures contain calcite crystals and at 37½' is about 8" of white, coarse marble. From 42' some quartz (pinkish white amorphous) appears in the irregular veinlets. Occasionally rock is brecciated with calcite and/or quartz cement, in places with fine grained pyrite crystals and green chlorite. From 66' the rock is intensely silicified and brecciated with pyrite, chlorite and limonite disseminated into rock and following some of the fractures.		
74.0 - 74.5			Dyke, dark, fine grained, with iron oxides along the fractures		
74.5 - 92.5			Dark grey dolomite, intermixed with light grey dolomite. Rock is coarse grained, badly fractured and in places brecciated. Yellow limonite appears along the fractures.		
92.5 - 93.5			High grade galena and some sphalerite. First 3" is solid galena, and in the remainder of interval galena and black sphalerite appear along the fractures in the silicious dolomite.		
93.5 - 272.0			Medium grey, coarse to medium grained, massive dolomite for about first 5' of interval and then darker rock with indications of very irregular bedding at about 45° to core axis.		

DEPTH	Core Recovered		Hole - M-9 - Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
93.5 - 272.0 (Cont'd)			102.0' - 105.0'	rock is very fractured, slightly silicious with minor fine grained galena disseminated throughout. No bedding apparent. Several grains of galena found in the core box, which could mean that some of higher grade section could have been ground up and washed out during drilling. Pale green chlorite along fractures.		
			From 105.0'	solid dolomite with excellent core recovery. Very irregular, stylolitic bedding appears at 30° - 40° to core.		
			134.0' - 139.0'	massive, somewhat brecciated dolomite with calcite veining, some dark chlorite and tremolite crystals along fractures. Rock is in places silicious.		
			From 144.0'	bands of fine grained silica carry pyrite and some slightly magnetic pyrrhotite. Some of fine grained galena is also noted along both bedding planes and irregular fractures. In the fractures galena appears together with fine grained pyrite and pale green chlorite.		
			200.0'	rock becomes brecciated, with calcite crystals and limonite impregnations in the matrix.		
			201.0' - 204.0'	limonitic gouge, mostly washed out, only about 3" recovered.		
			204.0' - 207.0'	brecciated dolomite, silicious with tremolite crystals, calcite and minor galena in fractures.		
			207.0' - 213.0'	galena content in fractures increases. Limonite and tremolite crystals are also found in fractures. In places manganiferous limestone appears as solid zones with remnants of galena crystals partially oxidized.		
			213.0' - 218.0'	still fairly limonitic dolomite and then changes back to grey dolomite with white calcite and silica bands and veinlets.		

DEPTH	Core Recovered		Hole - M-9 - Continued	DESCRIPTION	SAMPLE	WIDTH OF SAMPLE
	Feet	%				
				Brecciated and silicious zones continue to about 266' with excellent core recovery.		
			266.0' - 271.0'	Silicious dolomite carrying fairly fresh galena.		
272.0 - 275.5				Dyke rock, dark, basic, fairly fine grained, fractured, pyrite and iron oxides along the fractures.		
275.5 - 295.0				Fine grained, grey limestone, well bedded with bedding changing from 45° - 60° to core axis. In places bedding lines are irregular to stylolitic. At 285' about 1' of the same dyke rock as in previous interval.		
295.0				End of Hole		

V. [Signature]

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-10

Hole No. M-10

Lot 0 + 80 N

Total Depth 317'

Section _____

Dep. 2 + 60 E

Logged by V. Cukor

Date Begun June 22, 1976

Bearing 186°

Date _____

Date Finished June 25, 1976

Elev. Collar _____

Claim Magno 1, Jean 1

Date Logged _____

Dip -45°

Core Size B.Q.

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 27.0			No core, casing.		
27.0 - 47.0			Grey dolomite, in places badly fractured, calcitic white splotches through most of zone and intense silicification noted. At 41' - 43' zone of fine grained quartz and calcite.		
47.0 - 63.0			Bluish grey limestone, medium to coarse grained with very irregular bedding. Calcite along fractures and in cavities.		
63.0 - 93.0			Light grey dolomite, coarse grained in places and medium grained in others. Some green chlorite noted occasionally along fractures. From 86' - 89' rock is darker with white calcite splotches and also irregular calcite veining.		
93.0 - 94.0			Dark, basic dyke, badly fractured and ground up (only 3" of core recovered).		
94.0 - 280.0			Fractured and porous, grey, medium grained dolomite with some pyrite and manganese along fractures.		
			110.0' - 116.0' silicious dolomite with pyrite, arsenopyrite and minor hydrozincite with some limonite in fractures.		
			From 116.0' coarser crystalline dolomite, darker grey with limonite and calcite in fractures.		
			121.0' - 137.5' lighter grey medium grained dolomite, massive some limonite along fractures in the first part of the interval and pyrite, calcite, hydrozincite in the second, with a heavy pyritization at 132.5 - 133.5'.		

DEPTH	Core Recovered		Hole - M-10 - Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
			137.5' -	About 1' of lighter dolomite and then darker finer grained with some laminations at 45° to core.		
			155.0' - 157.0'	zone of vuggy, rusty dolomite with heavy pyritization and minor galena. Vugs and limonite continue to 163' but pyritization is much weaker.		
			163.0' -	fairly massive grey dolomite with some white calcite spots and also some brecciation in narrow zones. Rock gradually becomes coarser and dark irregular lines greater in number and spaced closer.		
			193.0' -	rock becomes more intensely fractured with core broken in small fragments.		
			208.0' - 210.0'	more intensely altered rock with tremolite pyrite and minor sphalerite.		
			217.0' -	brecciated and fracturing increases in intensity with calcite and limonite along the fractures.		
			246.0' - 280.0'	bluish or grey dolomite fractured with galena and sphalterite along the fractures. In places rock is badly fractured and recovered only as small fragments. From 262.0' magnetite content increases and in places becomes solid. No limonite present and rock has a steel grey colour. At the end of the interval is a high grade section of sphalerite galena surrounded by altered rock with tremolite and some limonite.		
280.0 - 317.0				Bluish grey limestone, medium to coarse grained, fairly massive at the start of the interval, laminated in places with laminations changing angle from 45° to almost parallel to core. Fracturing and porosity fairly high in some places and calcification in places strong. Some limonite along the fractures at the end of the interval.		
317.0				End of Hole		

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group - Cassiar, B.C. HOLE No. M-11

Hole No. M-11

Lot 0 + 80 N

Total Depth 345'

Section _____

Dep. 2 + 60 E

Logged by: V. Cukor

Date Begun June 26, 1976

Bearing 146°

Date _____

Date Finished June 28, 1976

Elev. Collar _____

Claim Magno 1 Jean 1

Date Logged _____

Dip -45°

Core Size B.Q.

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH OF SAMPLE
	Feet	%			
0 - 22.0			No core, casing		
22.0 - 66.0			Grey dolomitic limestone to dolomite with gradational changes from one to another. Rock is massive, grey in colour and medium grained.		
66.0 - 67.0			Dark basic dyke.		
67.0 - 77.5			Coarse, grey limestone, massive with calcite and tremolite crystals.		
77.5 - 285.0			Badly fractured dolomite, tremolitic, silicious.		
			96.0' - 92.0' fracturing and silicification increases with pyrite content fairly high in places. Limonite appears along some fractures.		
			92.0' - dolomite becomes massive and solid and also darker in colour.		
			119.0' - 123.0' intensely fractured rock with some grey gouge.		
			123.0' rock slightly fizz with white calcite spots and also some tremolite crystals. Some very irregular laminations noted and also some limonite and pyrite along fractures.		
			162.0' - 163.0' fractured with limonite and minor magnetite. Rock is massive, coarser grained and slightly fizz.		
			193.0' - 3" of manganiferous limonite.		
			196.0' - rock is darker grey and coarser crystalline.		

DEPTH	Core Recovered		Hole - M-11 - Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
			202.0' -	limonite impregnated into rock giving the rock rusty colour.		
			220.0' - 247.0'	rock is badly fractured and only 10' of core recovered, mostly as rounded pebbles.		
			247.0' -	Rock is more solid.		
			257.0' -	<u>About 1' of brown dolomite with magnetite and also with some very minor sphalerite in fractures.</u>		
			284.0'	Ground up core with limonite and hematitic gouge in fractures.		
285.0 - 291.0				Dyke		
291.0 - 299.0				Solid dolomite, grey, massive with calcite stringers and limonite along fractures.		
299.0 - 345.0				Bluish grey limestone, crystalline, solid with some fractures filled with calcite, some irregular laminations about 40° - 50° to core axis. Excellent core recovery.		
345.0				End of Hole		

V. [Signature]

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-12

Hole No. M-12

Lot 1 + 10 S

Total Depth 300'

Section _____

Dep. 13 + 85 W

Logged by V. Cukor

Date Begun June 30, 1976

Bearing 263°

Date _____

Date Finished July 2, 1976

Elev. Collar -45°

Claim Magno 4

Date Logged _____

Dip _____

Core Size B.Q.

V. CUKOR, P.ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 10			No core, casing		
10.0 - 46.0			Bluish grey limestone, in places spotted by white calcite specks in general fine grained and mostly massive. Rock is fairly fractured with core recovered mostly in small angular fragments. Calcite and some limonite follow the fractures. Some bedding appears at 80° to core axis at the end of the interval where the rock is intensely fractured.		
46.0 - 48.0			Coarse grained, white marble, with yellow limonite stain along the fractures.		
48.0 - 51.0			Marble with galena, sphalerite and limonite along fractures. Galena is mostly fine grained and in places reaches up to about 50% of core.		
51.0 - 58.0			Steel grey magnetite in places solid with galena (mostly fine grained) and some limonite along the fractures.		
58.0 - 59.0			Bluish limestone for 6" and then 6" of white marble.		
59.0 - 59.5			Yellow gouge and broken up limonite and calcified limestone (fault?).		
59.5 - 60.0			Badly fractured, bluish grey limestone, recemented with calcite and limonite in cement.		
60.0 - 108.0			The same limestone, less broken up, except for the first 3' where core recovery is as small fragments. Some bedding appears at 75° to core.		

DEPTH	Core Recovered		Hole - M-12 - Contined	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
			93.5' - 94.0'	6" of magnetite galena and fine grained pyrite. Laminations appear from 70° - 75° to core		
			From 96.0'	Some of the laminations are brownish argillite Small pyrrhotite lenses follow some of silicious laminations.		
108.0 - 134.0				Brownish argillite, interlaminated with alternate bands of calcareous and silicious material. Some of the laminations carry lightly magnetic pyrrhotite (up to 15%) Rock is fairly solid with excellent core recovery.		
134.0 - 163.5				Bluish grey limestone, changing at 137' gradually into white, coarse grained marble. Limonite and hematite along some of the fractures and in places impregnated into rock giving it a reddish colour.		
163.5 - 300.0				Light grey massive dolomite, in places almost white. Rock is medium to coarse grained. Pink rhodochrosite along the fractures gives the rock a pinkish appearance.		
			198.0' - 203.0'	zone of very coarse grained white marble changing back into dolomite in places re-crystalized and coarse grained.		
			262.0' - 281.0'	zone of white marble. Except for some small fractured sections, rock is fairly solid and recovery is excellent throughout zone		
300.0'				End of Hole		
				Hole was drilled to intersect magnetic anomaly as well as I.P. anomaly (striking N-S). Explanation for the I.P. anomaly is probably the argillite with pyrrhotite.		

V. G.

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-13

Hole No. M-13

Lat. 1 + 10 S

Total Depth 101'

Section _____

Dep. 13 + 85 W

Logged by V. Cukor

Date Begun July 3, 1976

Bearing 240°

Date _____

Date Finished July 3, 1976

Elev. Collar _____

Claim Magno 4

Date Logged _____

Dip -65°

Core Size B.Q.

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 12			No core, casing		
12 - 47.0			Bluish grey limestone, massive, with white calcite specks. In places badly fractured with calcite and limonite along the fractures. At 36.5' - 37.5' white, coarse grained marble. At the end of the interval, fracturing increases in intensity and limonite shows along the fractures.		
47.0 - 58.0			Limestone as above with magnetite and good galena in fractures. Some of magnetite is altered into brownish yellow limonite. Some hydrozincite appears along fractures as well. Last feet of interval, mineralization is poor. Inside interval, the limestone gradually changes into dolomite.		
58.0 - 61.5			Grey dolomite, massive fractured with limonite along the fractures. Some hydrozincite also present.		
61.5 - 101.0			Bluish grey limestone, laminated at 80° - 90° to core axis. White calcite specks and also some calcite and limonite along the fractures. Core is mostly solid with excellent recovery. From 91' to the end of the interval some of the laminations consist of brown, argillite.		
101.0			End of Hole		

V. Cukor

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.) PROPERTY Magno Group, Cassiar, B. CHOLE No. M-14

Hole No. M-14 Lot 0 + 50 S Total Depth 262'
 Section _____ Dep. 16 + 57 W Logged by: V. Cukor
 Date Begun July 4, 1976 Bearing 178° Date _____
 Date Finished July 5, 1976 Elev. Collar _____ Claim Magno 4
 Date Logged _____ Dip -45° Core Size B.Q.

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 9			No Core, casing		
9.0 - 37.5			Badly fractured, grey, massive dolomite, limonite and some calcite along tight fractures, most of the core recovered in small fragments 1/4" - 2" size.		
37.5 - 56.0			Bluish grey limestone, massive, less fractured, speckled with white calcite. From 46' bedding at 20° to core axis. Rock becomes coarser grained.		
56.0 - 82.0			White to yellowish, while coarse grained marble, in some places relics of bedding still visible. Core recovered in pieces of up to 1' in length. At the end of the interval some limonite and hematite appear along the fractures.		
82.0 - 88.0			Light yellowish - grey massive dolomite porous with calcite and limonite in fractures. Some of the core badly fractured.		
88.0 - 92.6			Dark medium grained basic dyke. Calcite, limonite and fine grained pyrite appear along hairline fractures. At the end of the interval rock is badly fractured.		
92.6 - 116.0			Light grey, in places bluish grey medium grained dolomite, massive. Coarse grained calcite appears as fracture filling with some of the fractures up to 2" wide. Green chlorite also appears along some of the hairline fractures. From 107' - 110' only 3" of core recovered in small fragments.		

DEPTH	Core Recovered		Hole - M-14 - Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
116.0 - 135.0				Bluish grey coarse grained marblized limestone. From 119' rock becomes lighter in colour with chlorite, rhodochrosite and limonite along fractures. In places rhodochrosite impregnates the rock giving it a pinkish tinge. Dolomitization noted in several places.		
135.0 - 136.0				Dark basic dyke.		
136.0 - 157.5				Light grey coarse grained marblized limestone and white marble. Except for the start of interval where some bedding appears at 30° to core, rock is mostly massive. Core is recovered in pieces up to 2½' long. Towards the end of the interval white sugary marble.		
157.5 - 159.0				Basic medium grained dyke fractured. Only 8" of core recovered.		
159.0 - 168.0				White, coarse grained, sugary marble, massive. Rock is solid and core recovery excellent.		
168.0 - 170.0				Dark, basic dyke, badly fractured.		
170.0 - 180.0				Marble as above. Towards the end of the interval fracturing is increased with grey gouge filling the fractures.		
180.0 - 181.0				Badly fractured, dyke rock. Poor recovery.		
181.0 - 181.5				Marble, coarse grained, fractured with limonite and grey gouge along fractures.		
181.5 - 182.0				Brownish - grey coarse grained dolomite. The colour is from impregnation of manganiferous limonite.		
182.0 - 192.0				Manganiferous magnetite, limonite and galena. From 187'-189' coarse grained light grey marble. Some hydrozincite staining noted. Last 3' of interval fairly high grade vein material		

DEPTH	Core Recovered		Hole - M-14 - Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
192.0 - 262.0				Coarse grained sugary marble. Dark gouge and some limonite in the fractures at the start of the interval. Colour of the rock is light grey. Some bedding appears at 25°- 30° to core axis. Core is fractured in some places but mostly solid with excellent recovery. More fractured zones are at around 230', 233' - 235'. At 247' - 255' bedding parallel to core.		
262.0				End of Hole		

V. C.

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-15

Hole No. M-15
 Section _____
 Date Begun July 5, 1976
 Date Finished July 6, 1976
 Drill _____

Lot 0 + 50 S Total Depth 247'
 Dep. 16 + 57 W Logged by V. Cukor
 Bearing 221° Date _____
 Elev. Collar _____ Claim Magno 4
 Dip -45° Core Size B.Q.

V. CUKOR, P. ENG.
 VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 10			No core, casing		
10.0 - 30.0			Bluish grey limestone, coarse grained, well bedded to massive. Bedding, where appears, is at 55° to core axis. In places rock is badly fractured, and is recovered in small rounded fragments. From 13' - 15' band of coarse grained, light coloured marble.		
30.0 - 53.0			White to yellowish, coarse grained, sugary marble. Some hair-line fractures are filled with limonite, and rhodochrosite 40.0' - 42.0' zone of badly fractured rock with poor recovery.		
53.0 - 59.0			Coarse grained, bluish grey, well bedded limestone speckled with white calcite patches. Bedding at 60° to core axis. Last foot of interval is coarse grained, white marble.		
59.0 - 88.0			Light grey, medium grained, massive dolomite. Green chlorite limonite and minor rhodochrosite appear along hairline fractures at the start of the interval. Rock is fairly solid with more intensely fractured zones at 71' and 73'-75'.		
88.0 - 103.5			White, coarse grained, sugary marble. 98.0 - 99.0' basic dyke and again at 102' 2" of badly fractured dyke rock. 101.0' to end of interval, white, medium grained fractured dolomite with rhodochrosite along fractures.		

DEPTH	Core Recovered		Hole - M-15 - Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
197.0 - 247.0				considered as representative and should not be used for ore reserves calculations.		
247.0				Light grey to brownish dolomite. At the start of the interval decomposed, fractured, with intense hydrozincite staining along the fractures. From approximately 220' rock becomes more solid. Calcite, green chlorite, manganese oxides and rhodochrosite appear along the fractures throughout.		
				End of Hole		

V. C.

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-16

Hole No. M-16

Lot 0 + 90 S

Total Depth 361'

Section _____

Dip 10 + 35 W

Logged by V. Cukor

Date Begun July 7, 1976

Bearing 305°

Date _____

Date Finished July 8, 1976

Elev. Collar -55°

Claim Magno 2

Date Logged _____

Dip _____

Core Size B.Q.

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 10			No core, casing.		
10.0 - 28.0			Light grey dolomite, fine to medium grained, badly fractured. From 10' - 25' core recovered only 5', mostly as small rounded fragments.		
28.0 - 34.0			White, coarse grained marble with yellowish and reddish tinge. Rock is badly broken and poor recovery.		
34.0 - 111.0			Bluish grey limestone, medium to coarse grained, mostly broken up into small fragments.		
			70.0' bedding at 60° to core axis, core is more solid.		
			75.0' - 90.0' mostly badly broken again, calcite along the fractures.		
			110.0' 3" wide fracture with calcite and pyrite.		
111.0 - 128.0			Laminated brown argillite, laminations at 80° to core axis. Some laminations are silicious, with disseminated green chlorite and fine grained, slightly magnetic pyrrhotite.		
128.0 - 263.0			Grey limestone with white calcite blobs and veinlets and with some fine grained pyrite in irregular fractures. Very irregular bedding appears at 70° to core. Rock is fairly solid except for 2' zone from 158 - 160'.		
			180.0' - 190.0' some silicious and argillaceous laminations with fine grained slightly magnetic pyrrhotite present.		
			From 240.0' pyrite in fractures.		
			From 252.0' argillaceous laminations with alternate grey limestone.		

DEPTH	Core Recovered		Hole - M-16 - Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
263.0 - 285.0				Brown argillite, fine grained, laminated, with calcareous and silicious laminations. Fine grained, slightly magnetic pyrrhotite disseminated into silicious laminations at 80° to core axis. Some of the silicious laminations carry fine grained disseminated chlorite.		
285.0 - 323.0				Light grey, medium to coarse grained dolomite, massive, solid, with excellent core recovery. Chlorite and fine grained pyrite appear along irregular fractures. Toward the end of the interval dolomite is recrystallized and with limonite and rhodochrosite along hairline fractures.		
323.0 - 332.0				White, coarse grained marble, massive, solid with excellent core recovery. Limonite and rhodochrosite and green chlorite along irregular hairline fractures. Rock is solid with largest piece 3' long.		
332.0 - 361.0				Grey dolomite, massive, medium grained to coarse grained, solid good core recovery.		
				334.0' - 336.0' rock is intensely chloritized with pyrite and limonite along the fractures. In the rest of the interval chlorite, rhodochrosite and limonite along the fractures.		
				From 347.0' rock is recrystallized and discoloured. The last 3½' of interval, core is broken with poor recovery, only 50% of core recovered.		
361.0				End of Hole		

V. Carter

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-17

Hole No. M-17

Lot 0 + 90 S

Total Depth 315'

Section July 9, 1976

Dep. 19 + 15 W

Logged by V. Cukor

Date Begun July 10, 1976

Bearing 169°

Date

Date Finished July 10, 1976

Elev. Collar

Claim Magno 4

Date Logged

Dip -45°

Core Size B.Q.

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 25.0			No core, casing.		
25.0 - 30.0			Grey to light grey marble. At the end of the interval core is badly broken, poor recovery, in small pieces up to 1".		
30.0 - 54.0			Light grey dolomite, medium to coarse grained, in places porous and in places badly fractured with core broken into small fragments.		
54.0 - 71.0			Coarse grained white marble, massive, solid, core is broken into small fragments.		
71.0 - 165.0			Light grey, medium grained dolomite, fractured. Some limonite, hematite and rhodochrosite along the fractures. In places rock becomes extremely coarse grained, recrystallized. 112.0' - 115.0' limonite is impregnated in rock. From 100' to end of interval, rock is more solid.		
165.0 - 172.0			White, coarse grained marble, massive.		
172.0 - 186.0			White to light grey dolomite. Contact to marble is fairly sharp at 72° to core axis. Rock is fairly coarse grained, recrystallized. Limonite and rhodochrosite along the fractures.		
186.0 - 195.0			White, coarse grained marble. Rock is impregnated with hematite and limonite from 186' - 189'.		
195.0 - 214.0			White to light grey dolomite, massive, medium to coarse grained. In places the rock is fairly intensely fractured with core broken into small fragments.		
214.0 - 216.0			Dark basic dyke, fractured with iron oxides along the fractures		

DEPTH	Core Recovered		Hole - M-17 - Contined	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
216.0 - 256.0				White to light grey dolomite, massive, medium grained. The first foot of the interval is intensely altered with chlorite and limonite disseminated throughout. Rock is in general solid with good recovery. Limonite and chlorite along the irregular hairline fractures.		
256.0 - 256.5				Dark basic dyke, badly fractured, poor recovery.		
256.5 - 304.0				White to light grey, dolomite, massive,		
			257.0'	rock is altered limonite, broken up with pieces of dyke mixed with dolomite.		
			259.0'	6" of badly broken dyke, and at 261' another 4".		
			261.0' - 262.0'	1" wide fracture, filled with green chlorite at 20° to core.		
			268.0' - 269.0'	core is intensely impregnated with limonite.		
			284.0' - 288.0'	rock is darker grey.		
			296.0'	rock is intensely fractured and chloritized.		
			302.0' - 304.0'	intense fracturing, breccia and gouge (fault).		
304.0 - 315.0				Medium grained grey, massive dolomitic limestone. Rock is solid with good recovery.		
315.0				End of Hole		

V. G.

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-18

Hole No. M-18

Lot 2 + 60 S

Total Depth 197'

Section _____

Dep. 20 + 00 W

Logged by: V. Cukor

Date Begun July 11, 1976

Bearing 172°

Date _____

Date Finished July 12, 1976

Elev. Collar _____

Claim Magno 4

Date Logged _____

Dip -45°

Core Size B.Q.

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 19.0			No core, casing.		
19.0 - 34.0			White, coarse grained marble, in places badly fractured. At the start of interval one piece of magnetite 2" long which might be a boulder.		
34.0 - 71.0			Light grey, coarse grained dolomite, in places recrystallized, intensely fractured with limonite in fractures.		
			48.0' 3' of badly fractured core.		
			51.0' - 57.0' core lost.		
			57.0' - 65.0' rock is intensely limonitized and in places fractured.		
71.0 - 96.5			White, coarse grained marble. Contact to dolomite is sharp at 70° to core axis. Rock is massive, fairly solid with good core recovery.		
96.5 - 123.0			Light grey, medium grained dolomite, sandy in appearance in places. Rock is intensely fractured and limonitized. Most of the core is recovered in small fragments. Around 121' rhodochrosite appears in fractures.		
123.0 - 128.0			Dark, fine grained basic dyke. In places badly fractured and poor recovery.		
128.0 - 132.0			White, coarse grained marble.		
132.0 - 143.0			Fine grained, dark basic dyke. From 136' - 138' marble.		
143.0 - 194.0			Light coloured, dolomite, medium grained, in places intensely limonitized.		

DEPTH	Core Recovered		Hole - M-18 - Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
			147.0'	1' badly broken dyke, in places rock is solid but in places is fairly soft with core broken in small fragments and dolomite sand.		
			155.0'	2' fracture with galena and limonite.		
194.0 - 197.0				Light grey, coarse grained marble.		
197.0				End of Hole		

U. C.

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-19

Hole No. M-19

Lot 4 + 60 S

Total Depth 201'

Section _____

Dep. 24 + 00 W

Logged by V. Cukor

Date Begun Oct. 8, 1976

Bearing 165°

Date October 15, 1976

Date Finished Oct. 14, 1976

Elev. Collor _____

Claim Magno #4

Date Logged _____

Dip -40°

Core Size _____

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0. - 8.			No core, casing		
8.0 - 27.0	15	79	Bluish grey, fine grained, limestone. Rock is generally badly fractured and in some small intervals core is recovered as small angular fragments. Bedding is visible at 35° to core axis		
27.0 - 33.0	5	84	Dark, medium grained, basic dyke badly fractured, stained with yellow limonite along fracture planes. Core is recovered in small fragments up to 1" in size.		
33.0 - 41.0	5	63	Brownish argillite, fine grained with green silicious laminations. Rock is badly fractured with limonite staining along laminations and fracture planes. Laminations at 35° to core axis.		
41.0 - 42.0			Lost core		
42.0 - 48.0	5	84	Medium grained limestone, grey to dark grey. Rock is massive with no traces of bedding observed. Yellow limonite and pale green chlorite is found along the fractures.		
48.0 - 61.0	12	92	Coarse grained, light grey to yellowish dolomite (slightly). Some pink rhodochrosite is found along irregular hairline fractures but also found impregnated into dolomite. Rock is fairly solid and core recovery is excellent.		
61.0 - 131.5	70	99	Light, yellowish grey to white, coarse grained marble. Some fractures are stained with limonite, but in general rock is solid with pieces of core recovered of up to 1.7' in length From 89' - 90' - dark, badly fractured, argillaceous rock At 124' - rock is coloured by iron and manganese oxides From 125' - colour changes very gradually to bluish grey and some irregular stylolitic bedding appears at 40° to core axis.		

DEPTH	Core Recovered		Hole M-19 Continued	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
131.5 - 145.0	4½	33		Light grey, coarse dolomite, massive, intensely fractured. Contact to marble is sharp at 45° to core. Manganese and iron oxides and in some places pink rhodochrosite are impregnated into rock. In places rock is brecciated. 133' - 136' lost core		
145.0 - 172.0	17	63		Light grey, coarse grained, vuggy marble alternated with brown iron stained dolomite. Some of the core is recovered in round pieces. At 169' about 3" of limonite and magnetite.		
172.0 - 188.5	9	55		Manganiferous magnetite, limonite, galena vein. 172' - 176' - probably higher grade zone, but core is mostly ground up and only 1' of core is recovered from the interval. Some small rounded fragments of galena are found in the core. 176' - to the end of the interval is mostly manganiferous magnetite and only sparse galena appears as inclusions. Core is mostly fractured with poor recovery. From 184.6 - 186.0' only 3" recovered and from 186.0' - 188.5 only 1'.		
188.5 - 201.0	12	96		Bluish grey limestone, fractured at the start of the interval more solid toward the end. Rock is fairly coarse grained with bedding marked at about 35° to core axis.		
201.0				End of Hole		

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-20

Hole No. M-20

Lot 4 + 60 S

Total Depth 185'

Section _____

Dep. 24 + 00 W

Logged by V. Cukor

Date Begun October 15, 1976

Bearing 200°

Date October 16, 1976

Date Finished October 16, 1976

Elev. Collar _____

Claim Magno 4

Date Logged _____

Dip -45°

Core Size B.Q.

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0. - 8.			No core, casing		
8.0 - 45.0	26	70	Bluish grey, dolomitic limestone, in places somewhat argillaceous. At the start of the interval rock is massive, but badly fractured and core is recovered as rounded fragments. More fractured core is in the following zones: start of hole - 12', 14' - 16', 21' - 22', 27' - 31'. At 22' - 24' lost core, at 36' bedding appears at 35° to core, and is gradually changing toward the end of interval where it is 20° to core axis.		
45.0 - 73.0	21	75	Yellowish to pinkish dolomite, medium grained and in places coarse, crystalized. Rhodochrosite appears as impregnations throughout interval and also along the hairline fractures. In places, pale green chlorite appears as well. At 61' rock is brecciated.		
73.0 - 87.0	12	86	Coarse marble, yellowish to lightly pinkish. Rock is massive and core recovery is good. At the end of the interval there is a gradual change of marble into porous dolomite.		
87.0 - 104.0	14	82	Pinkish to yellow, medium to coarse grained porous dolomite. Rhodochrosite appears throughout interval. At 97' is broken zone 1' in width.		
104.0 - 111.0	7	100	Bluish grey, crystalline limestone, with stylolitic bedding at 45° to core axis. Excellent core recovery with pieces of up to 16" in length.		

DEPTH	Core Recovered		Hole M-20 Contined	DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%				
111.0 - 135.5	24	88		Coarse, pink dolomite, massive, with rhodochrosite impregnations throughout and in places along fractures. Rock is in places porous, in general solid with a good core recovery. More fractured rock is in the following zones: 114' - 114.5', 124', 131' - 132'. Change from limestone into dolomite is gradational.		
135.5 - 160.0	24	98		Bluish crystalline, limestone, mostly massive with some bedding noted at 35° to core axis. At 137' - 142' limestone is re-crystallized into coarse marble. Toward the end of the interval limonite staining appears along the fracture planes.		
160.0 - 170.0	9	90		Vein material consisting mostly of manganiferous magnetite and limonite. Last foot of interval is black, manganiferous gouge.		
170.0 - 171.5	.7	46		Dark, fractured dyke recovered as small angular fragments.		
171.5 - 172.5	.5	50		Vein material, mostly manganiferous magnetite.		
172.5 - 185.0	7	56		Fractured dolomitic limestone. At 177' is .6' of magnetite and again at 178' - 179' the same. End of interval is badly fractured and from 181' - 185' only .8' of core recovered.		
185.0				End of hole		

V. Ce

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-21

Hole No. M -21

Lot 5 + 35 S

Total Depth 133'

Section _____

Dep. 23 + 50 W

Logged by V. Cukor

Date Begun Oct. 17, 1976

Bearing 150°

Date Oct. 19, 1976

Date Finished Oct. 18, 1976

Elev. Collar _____

Claim Magno #4

Date Logged _____

Dip -60°

Core Size B.Q.

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0. - 15.0			No core, casing		
15.0 - 76.0	56	92	Crystalline dolomite, in places badly fractured. Colour of the rock changes depending upon kind of impurities. It is pink from rhodochrosite, yellow from limonite and brown where limonite and manganese oxide prevail. Wider fractures filled with manganese oxides are noted at 23', 24', 39' and 56'. Toward the end of the interval rock is mostly brown coloured.		
76.0 - 92.0	15	94	Bluish grey limestone, crystalline, massive, some hairline fractures are stained with yellow limonite. In general rock is solid and core recovery is excellent.		
92.0 - 102.0	7	70	Brown, medium grained dolomite. Colour of the rock is from limonite-manganese impregnations. Rock is in places porous to vuggy and in places badly fractured. From 95.5' - 96.5' is magnetite.		
102.0 - 109.0	2	29	Vein material, badly ground up and most of core is lost. From 102' - 103.6' core lost completely, and in the rest of the interval for every 1' or 1.5' run, only several small round fragments were recovered.		
109.0 - 133.0	22	92	Badly fractured dolomite, light grey, medium grained. At the start of the interval dolomite is alternated with crystalline bluish limestone. From 116' - 121' rock is extremely fractured.		
133.0			End of Hole		

V. Cukor

DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. HOLE No. M-22

Hole No. M - 22

Lot 5 + 35S

Total Depth 105'

Section Oct. 18, 1976

Dep. 23 + 50W

Logged by V. Cukor

Date Begun Oct. 18, 1976

Bearing 185°

Date Oct. 19, 1976

Date Finished Oct. 18, 1976

Elev. Collar

Claim Magno #4

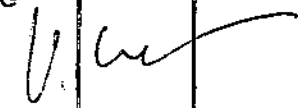
Date Logged

Dip -45°

Core Size B.Q.

V. CUKOR, P. ENG.
VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0. - 11.			No core, casing		
11.0 - 73.0	54	87	Yellowish to pinkish dolomite, medium to coarse grained. In places rock changes colour to brownish from manganese limonite impregnations. Pink rhodochrosite is impregnated into rock throughout core and occasionally also appears as fillings in hairline fractures. Rock is in places brecciated and sometimes is badly fractured. More intensely fractured zones are at 56' - 62' and 67' - 69'. Occasionally rock is porous to vuggy.		
73.0 - 74.0	1	100	Magnetite, limonite with yellow gouge at the end of the zone.		
74.0 - 75.5	1 1/2	100	Yellowish medium grained dolomite, fairly solid.		
75.5 - 77.5	.8'	40	Dark basic dyke, coarse grained, badly fractured. Yellow limonitic staining appears along fractures.		
77.5 - 79.5	2	100	Dolomite as above, but much coarser grained. Rock is fractured with manganese limonite filling along fractures.		
79.5 - 87.0	4	40	Vein material, mostly manganiferous magnetite and limonite, porous and vuggy. From 80' - 83' only 5" of core recovered.		
87.0 - 90.0	2.5	83	Coarse grained dolomite, fairly solid, colour of rock is changing from dark brown to light brown. At 88' - 3" of manganese oxides and limonite appears.		
90.0 - 105.0	15	100	Coarse, light grey marble, gradually changing to bluish coarse limestone. Bedding appears at 45° to core axis. End of hole		



DIAMOND DRILL RECORD

COMPANY BALFOUR MINING LTD. (N.P.L.)

PROPERTY Magno Group, Cassiar, B.C. CHOLE No. M-23

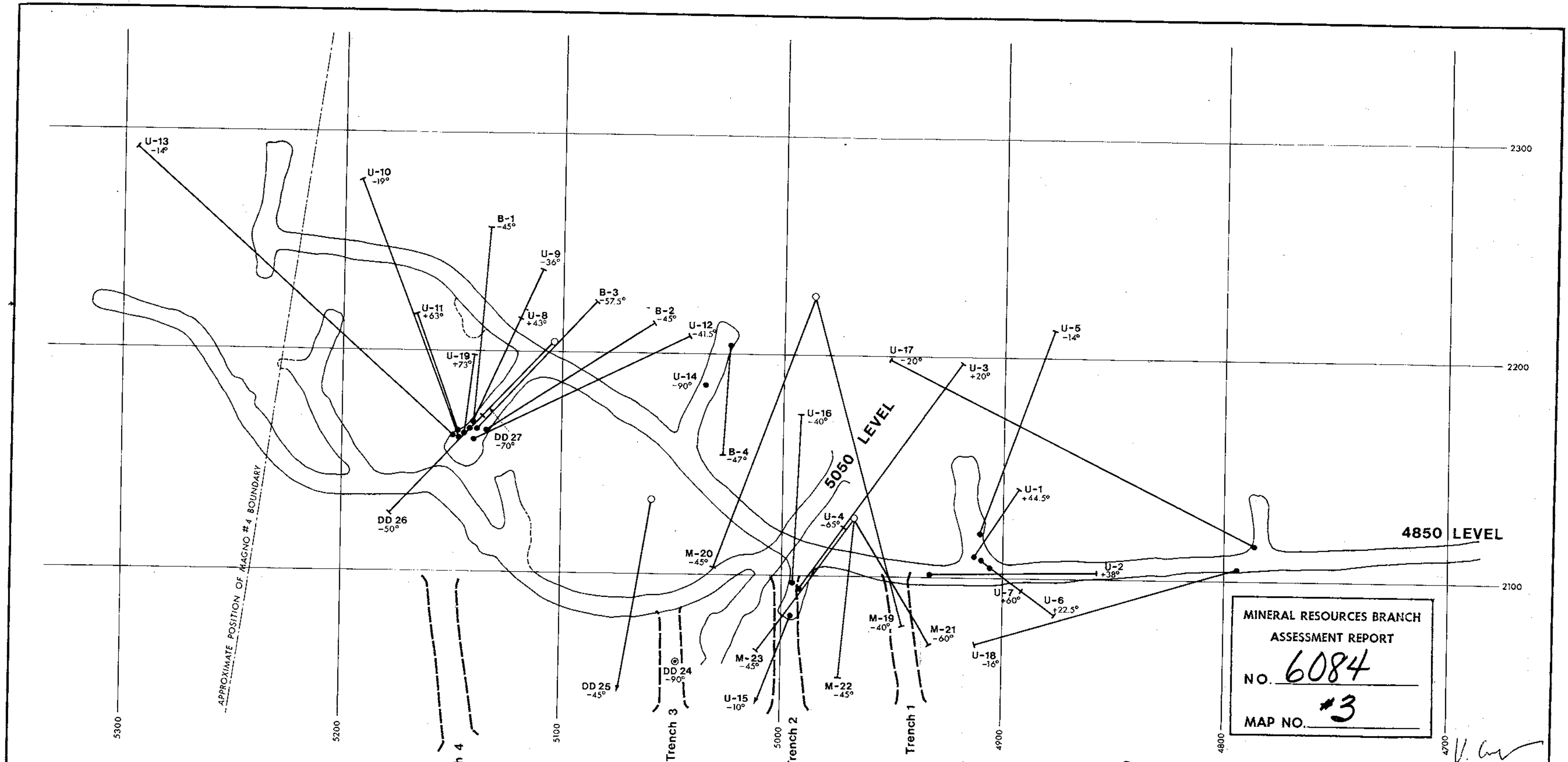
Hole No. M-23
 Section _____
 Date Begun Oct. 19, 1976
 Date Finished Oct. 19, 1976
 Date Logged _____

Lot 5 + 35 S
 Total Depth 116'
 Dep. 23 + 50 W
 Logged by V. Cukor
 Bearing 215°
 Date Oct. 19, 1976
 Elev. Collar _____
 Claim Magno 4
 Dip -45°
 Core Size B.Q.

V. CUKOR, P. ENG.
 VANCOUVER, B.C.

DEPTH	Core Recovered		DESCRIPTION	SAMPLE	WIDTH of SAMPLE
	Feet	%			
0 - 8			No core, casing		
8.0 - 77.0		99	<p>Yellowish and occasionally pinkish, crystalline dolomite. Pinkish colour is from impregnated rhodochrosite. In places colour also changes into brown from limonite and manganese oxides. At the start of the interval the rock is intensely fractured.</p> <p>From 34' - 38' rock is brecciated and rock fragments are re-cemented with dolomite matrix.</p> <p>From 50' - 65' is zone of badly fractured rock with limonite manganese and rhodochrosite staining. The last 5' of the interval colouring is more intense with brown and pink colours prevailing. Rock becomes very vuggy.</p>		
77.0 - 89.0	12	100	<p>Vein material consisting mostly of manganiferous magnetite:</p> <p>From 77' - 78' Magnetite From 78' - 82' Brown vuggy dolomite From 82' - 85' Magnetite From 85' - 86½' Basic dyke From 86½' - 89' Magnetite</p>		
89.0 - 116.0	27	100	<p>Bluish grey, crystalline limestone. Bedding appears at 40° to core axis. Rock is solid with excellent core recovery.</p> <p>End of Hole</p>		

V. Cukor



LEGEND

- } SURFACE HOLES
- ⊙ } SURFACE HOLES
- } UNDERGROUND HOLES

MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
 NO. **6084**
 MAP NO. **#3**

6084

BALFOUR MINING LTD. (N.P.L.)	
MAGNO GROUP WEST ZONE	
UNDERGROUND DEVELOPMENT PLAN	
LIARD M.D., B.C.	104-P-4,5
VLADIMIR CUKOR, P. Eng.	VANCOUVER, B.C.
DATE: Nov. 1976	SCALE: 0 40'
	FIG. 4



LEGEND

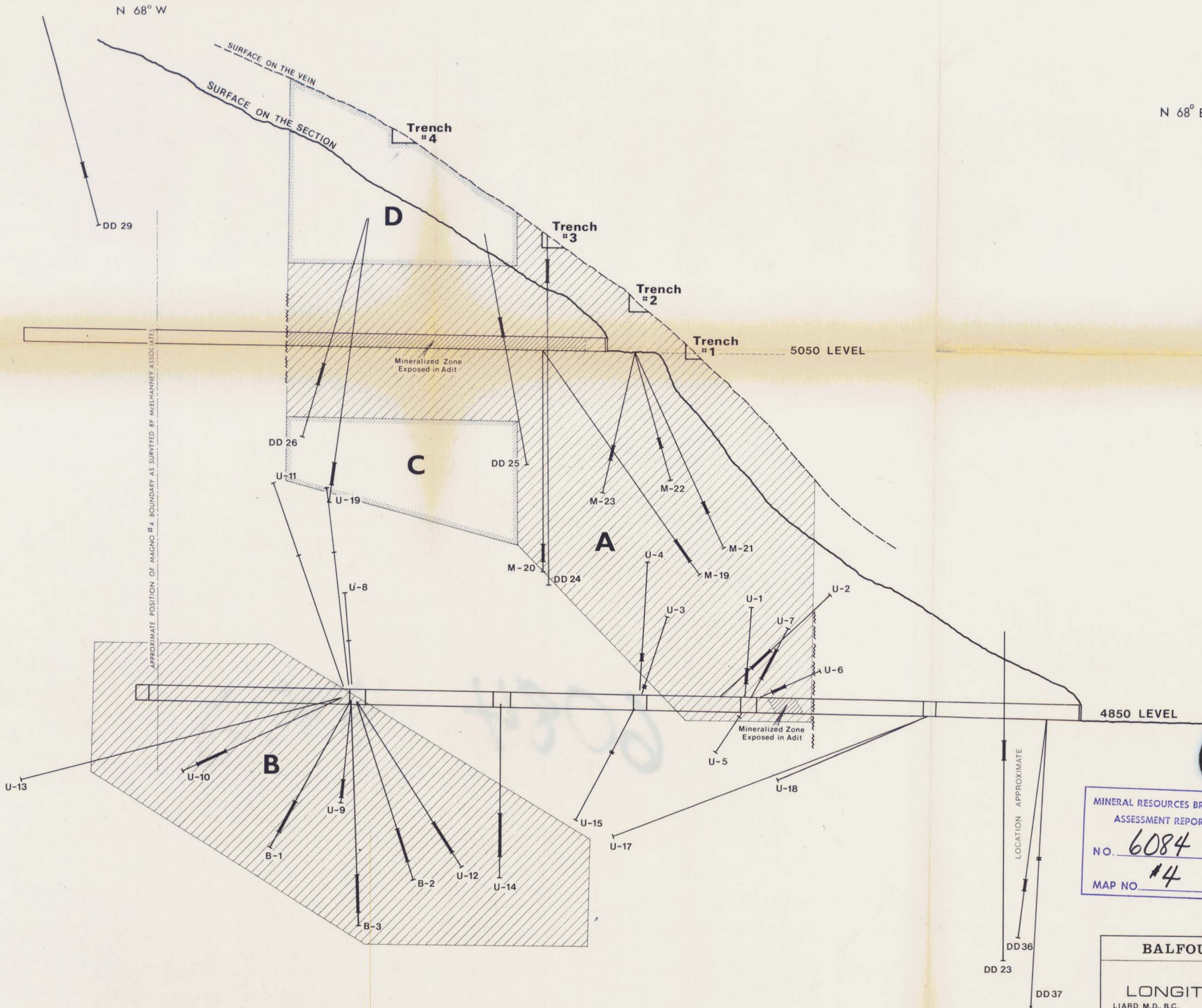
- LOWER ATAN**
- Quartzite
- UPPER ATAN**
- Limestone, Dolomite, Marble
- Argillite
- KECHIKA**
- Black Shale
- Fault
- Basic Dyke
- Magnetite - Galena Vein
- Exposed
- Indicated
- Inferred
- Bedding
- Joints
- Outcrop Boundary
- Geological Contact
- Mapped
- Inferred

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. **6084**
MAP NO. **#1**

6084 V.C.

BALFOUR MINING LTD. (NPL)
MAGNO GROUP
OUTCROP GEOLOGY MAP
LIARD M.D., B.C. 104-P-4.5
VLADIMIR CUKOR, P. Eng. VANCOUVER, B.C.
DATE: Nov. 1976 SCALE: 0 100 200' FIG. 4/2

To accompany Report on Exploration Program by V. Cukor, P. Eng. November, 1976.



N 68° W

N 68° E

DD 29

APPROXIMATE POSITION OF MAGNO #4 BOUNDARY AS SURVEYED BY McELHANNAY ASSOCIATES

5050 LEVEL

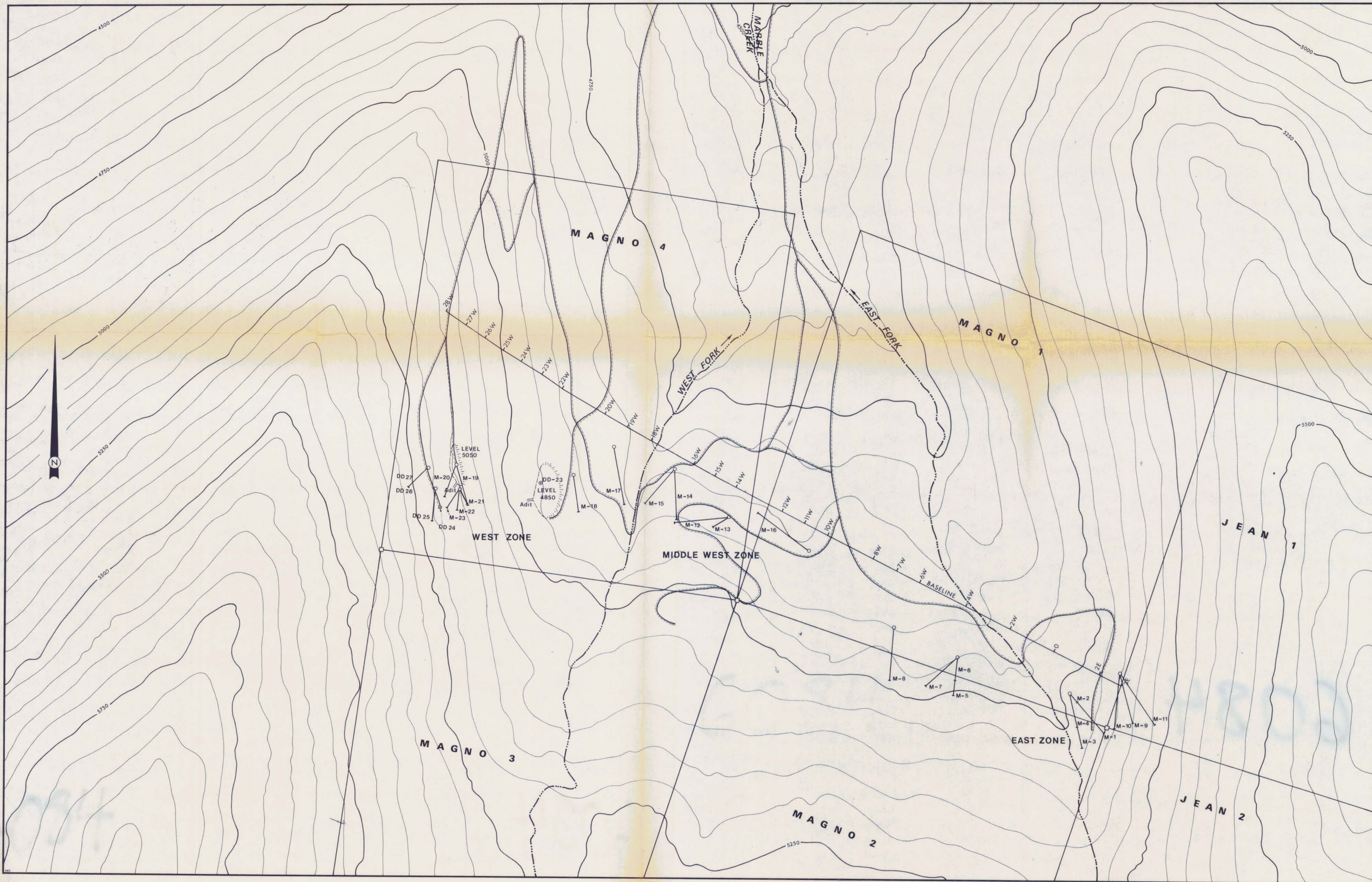
4850 LEVEL

6084

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6084
MAP NO. #4

V. Cukor

BALFOUR MINING LTD. (N.P.L.)	
MAGNO GROUP WEST ZONE	
LONGITUDINAL SECTION	
LIARD M.D., B.C.	104 - P-4,5
VLADIMIR CUKOR, P. Eng.	VANCOUVER, B.C.
DATE: Nov. 1976.	SCALE: 0' = 40'
	FIG. 5



- LEGEND**
- Road
 - Drill Hole
 - /○ Inclined
 - /○ Vertical
 - Claim Post

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6084
MAP NO. #2

6084 *V.C.*

BALFOUR MINING LTD. (N.P.L.)		
MAGNO GROUP		
DRILL PLAN		
LIARD M.D., B.C.		104 - P - 4,5
VLADIMIR CUKOR, P. Eng.		VANCOUVER, B.C.
DATE: Nov. 1976	SCALE: 0 100 200'	FIG. 3

To accompany Report on Exploration Program by V.Cukor, P.Eng. November, 1976.