

4456

92I/9W

PROGRESS REPORT
BARREL RESOURCES LIMITED
MINERAL PROSPECT
BD-DB CLAIMS, KAMLOOPS M.D.,
BRITISH COLUMBIA

Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. 4456 MAP.....	
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Vancouver, B.C.
June 15, 1973

W.G. Timmins, P.Eng.,

W. G. TIMMINS P. ENG. - MINING AND GEOLOGICAL CONSULTANT

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MAPS

#1 Geochemical Survey Plan	1" = 500 feet
#2 Magnetometer Survey Plan	1" = 500 feet
#3 Claim Map	1" = 1000 feet

SUMMARY

A programme of exploration mining, comprised of soil sampling and magnetometer surveying on a group of mining claims held by Barrel Resources Limited of Vancouver, British Columbia, has revealed anomalous copper values and partially coincident magnetometer highs.

An evaluation and expansion of the previous work on this claim group located in the Afton area near Kamloops is recommended; the recent work has uncovered the presence of gold/silver veins on the claims.

INTRODUCTION

Barrel Resources Limited own 33 contiguous mineral prospect claims in the Afton area, located less than a mile north of the Kamloops airport and further to my report dated March 7, 1973, geochemistry and magnetometer surveys have been carried out over this property.

Results have been plotted on the accompanying maps on a scale of 1" = 500', and contours were drawn.

LOCATION AND ACCESS

As mentioned previously, the property is less than a mile north of the Kamloops Airport and is easily accessible by municipal roads.

PROPERTY

The claims form a contiguous east-west elongate block of claims; a list of the claims follow:

<u>Claim Name</u>	<u>Tag Number</u>
BD 1-12 inclusive	346901M-346912M
BD 13-14 inclusive	346929M-346930M
BD 15-19 inclusive	346973M-346977M
DB 1-14 inclusive	349613M-346926M

TOPOGRAPHY AND CLIMATE

Topographic relief varies less than 600 feet and is one of gentle rolling to occasional steep hills.

Climate is typical Okanagan, interior British Columbia, with hot summers and relatively moderate winters.

HISTORY

During the recent field work, old workings were noted on the property, and after some library research, the Hilltop claim (Memoir 249, p.69) is reported to have produced 13 tons of ore from a quartz vein system yielding 5 ounces of gold and 55 ounces of silver. A 25-foot shaft was dug along with several pits and trenches, and an adit and open-cut. The area of activity appears to cover several hundreds of feet where quartz veins and shear zones were not fully traced along strike.

GENERAL GEOLOGY

In Memoir 249, Geological Survey of Canada, by W.E. Cockfield, the area is reported to be underlain by Cache Creek metasediments, greenstone and serpentine; Cache Creek is overlain by Nicola volcanic which in turn is overlain disconformably by younger Kamloops volcanic flows, tuffs and agglomerates.

Similarly similar rock types are reported underlying the claim group.

MINERALIZATION IN THE AREA

Cominco have reported 10,000,000 tons of 0.6% copper in the Jacko Lake area.

The Afton orebody is reported to be associated with a volcanic breccia of the Nicola Group and to contain a variety of sulphide minerals as well as native silver.

Copper occurrences are noted on W.E. Cockfield's G.S.C. Map 886A.

Gold and silver have been reported from the Hilltop claim which is now covered by the Barrel Resources claim group.

FIELD PROCEEDURE

An east-west base line was established on the property and cross lines run at 500-foot spacing with 500-foot stations for soil sampling and at 200 feet for the magnetometer survey; the base line was offset to the north on the west end of the claim block.

Claim posts were located and a map of the claims also included in this report, 1" = 1,000'.

The field work was under the general direction of Mr. Robb Pearson of Kamloops, B.C.

Geochemistry:

Samples were collected in kraft paper bags from the B soil horizon avoiding contamination and humus material where possible. A record was kept of pertinent data relating to the sample field location.

After drying and sorting to -80 mesh, Bondar-Clegg & Company Ltd., of North Vancouver, B.C. determined copper in ppm using hot aqua regia for extraction and atomic absorption to determine the quantity of copper present.

Results are appended to this report and have been plotted and contoured on the accompanying map, 1" = 500'.

Geophysics:

On 200 foot spaced stations, using the looping method of control and correcting for diurnal drift, a gamma datum level was established and the results plotted on the accompanying map, 1" = 500'.

DISCUSSION OF SURVEYS

Geochemistry:

Without benefit of a histogram, the background over the claims would appear to be about 40 ppm copper which is slightly above normal for this region but not significantly above normal.

The largest anomalous zone occurs between L50E and 75E, and, between 5N and 20N. Values have been recorded two and a half times background in an area 2000 feet by average 500 feet, elongate in a northwest-southeast direction.

A smaller anomaly occurs along L75E from 20N to 30N. There are two other isolated anomalous readings on L25E north of the base line.

Geophysics:

The magnetometer survey has probably indicated an approximate north-south geologic contact around L15W with the rock of higher magnetic susceptibility occurring to the west on the claims. A less easily explained higher magnetic intensity has been shown on the east part of the property. Readings of 200 to 400 gammas above background are found over a fairly wide area which is in part coincident with the copper anomaly.

CONCLUSIONS AND RECOMMENDATIONS

By establishing grid lines and conducting geochemical and geophysical surveys, copper anomalies and coincident magnetometer anomalies have been uncovered where a field crew have discovered old gold/silver workings.

The soil sampling should be closed to 200-foot spacing north of the base line from L100E to L20E and the results similarly plotted and contoured. Previous pulps or rejects in this area should be assayed for gold/silver.

The marked changes in magnetic intensity along and west of L15W should be investigated in the field.

The property should be mapped geologically and any old workings examined using a bulldozer.

More accurately defined anomalies should be opened up using a bulldozer.

Expenditures required to continue this programme are as follows:

Additional lines, 30 miles @ \$100/mile	\$ 3,000.00
Geochemistry - soil sampling collection and assaying 730 samples	3,650.00
Geologic mapping and inspection of anomalies, prospecting in detail	2,000.00
Bulldozer trenching of anomalies	<u>2,000.00</u>
TOTAL	<u>\$10,650.00</u>

Further funds would be required for drilling if the results of the above programme were indicative of economic quantities of copper, gold or silver being present.

Respectfully submitted,


W.G. Timmins, P.Eng.,

June 15, 1973

CERTIFICATE

I, WILLIAM G. TIMMINS, of the Province of
British Columbia, do hereby certify that:

1. I am a geologist having been practising my profession continuously for eleven years and maintain an office at 307-475 Howe Street, Vancouver, British Columbia.
2. I am a graduate of the Provincial Institute of Mining, Haileybury, Ontario and have attended Michigan Technological University, Houghton, Michigan.
3. I am a member of the Association of Professional Engineers of British Columbia.
4. I have no interest, direct or indirect in the property or securities of Barrel Resources Limited, nor do I expect to receive any such interest.
5. This report is based on government reports, personal knowledge of the area gained from numerous visits, a visit to the property on May 25, 1973 and supervision of the work programme performed by Mr. R. Pearson employed by myself.

Dated at Vancouver, British Columbia, this
15th day of June, 1973.



W.G. Timmins, P.Eng.,

APPENDIX I

GEOCHEMICAL LAB REPORT

150

BONDAR-CLEGG & COMPANY LTD.

geologists & geologists

1500 PEMBERTON AVENUE, NORTH VANCOUVER, B.C.
PHONE 988-5315

GEOCHEMICAL LAB REPORT

No. 23 - 109

Extraction Hot Aqua Regia

From Barrell Resources

Method Atomic Absorption

Date May 15, 19 73

Fraction Used -80 mesh

Analyst K. B.

SAMPLE NO.	Cu ppm						REMARKS
Line '0' - 5N	46						
10N	45						
15N	46						
20N	49						
25N	32						
Line '0' - 28N	75						
5E - 5N	56						
10N	46						
15N	56						
20N	47						
25N	49						
5E - 28N	39						
5W - 5N	38						
10N	32						
15N	40						
20N	51						
25N	64						
5W - 28N	39						
BL - 10W	42						
10W - 5N	42						
10N	40						
15N	42						
20N	41						
25N	42						
10W - 28N	41						
10E - 5N	45						
10N	39						
15N	40						
20N	69						
10E - 25N	74						

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SAMPLE NO.	Cu ppm			SAMPLE NO.	Cu ppm		
10E - 28N	63			25E - 28N	41		
BL - 15E	58			BL - 25W	39		
15E - 5N	33			25W - 5N	36		
10N	30			10N	38		
15N	34			15N	39		
20N	46			20N	37		
25N	49			25N	35		
15E - 28N	48			25W - 28N	34		
BL - 15W	40			BL - 30E	52		
15W - 5N	39			30E - 5N	53		
10N	38			10N	54		
15N	37			15N	30		
20N	36			20N	59		
25N	38			25N	37		
15W - 28N	39			30E - 28N	55		
BL - 20E	66			BL - 30W	40		
20E - 5N	38			30W - 5N	40		
10N	48			10N	37		
15N	58			15N	38		
20N	41			20N	36		
25N	54			25N	38		
20E - 28N	45			30W - 28N	38		
BL - 20W	39			BL - 35E	38		
20W - 5N	38			35E - 5N	38		
10N	40			10N	39		
15N	39			15N	37		
20N	36			20N	36		
25N	36			25N	36		
20W - 28N	36			35E - 30N	38		
BL - 25E	46			BL - 35W	47		
25E - 5N	36			35W - 5N	41		
10N	88			10N	39		
15N	46			15N	36		
20N	92			20N	38		
25E - 25N	40			35W - 25N	25		

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SAMPLE NO.	Cu ppm			SAMPLE NO.	Cu ppm		
60W - 20N	22			75E - 5S	87		
60W - 24N	46			10S	115		
BL - 65E	60			75E - 14S	126		
65E - 5N	59			75W - 20N	32		
10N	100			24N	41		
15N	60			75W - 30N	39		
20N	74			BL - 80E	66		
25N	72			80E - 5N	162		
65E - 30N	70			10N	52		
65E - 5S	38			15N	57		
10S	42			20N	64		
65E - 12S	42			25N	64		
65W - 10N	34			80E - 30N	64		
15N	32			80E - 5S	88		
20N	33			10S	85		
65W - 24N	36			80E - 15S	78		
BL - 70E	58			80W - 24N	22		
70E - 5N	52			30N	36		
10N	99			80W - 36N	42		
15N	59			BL - 85E	38		
20N	67			85E - 5N	39		
25N	70			10N	42		
70E - 30N	69			15N	42		
70E - 5S	62			20N	40		
70E - 9S	66			25N	40		
70W - 15N	36			85E - 30N	38		
20N	32			85E - 5S	45		
70W - 24N	46			10S	88		
BL - 75E	132			85E - 15S	62		
75E - 5N	38			85W - 24N	45		
10N	48			30N	55		
15N	38			35N	44		
20N	85			85W - 40N	40		
25N	103			BL - 90E	39		
75E - 30N	87			90E - 5N	44		

McPHAR M700 Flux Gate Magnetometer

SECTION 2

SPECIFICATIONS

2-1 MAXIMUM SENSITIVITY

20 gammas per scale division on 1,000 gamma range.

Readability is 1/4 scale division or 5 gammas.

2-2 MAXIMUM MEASUREMENT

Zero to $\pm 100,000$ gammas in five ranges.

Range Switch Position	Full Scale In Gammas	Gammas Per Scale Division
1K	1,000	20 black scale
3K	3,000	50 red scale
10K	10,000	200 black scale
30K	30,000	500 red scale
100K	100,000	2,000 black scale

2-3 MEASUREMENT POLARITY

The above ranges can be reversed in polarity as a simple function of the Polarity switch.

2-4 LATITUDE ADJUSTMENT

The latitude adjustment permits cancelling the earth's field up to a magnitude of $\pm 100,000$ gammas. The adjustment control is a ten revolution precision potentiometer located under the sliding side panel. A positive type locking lever on the control removes the hazard of accidentally dislodging the setting.

2-5 SELF-LEVELLING SENSING HEAD

The unique self-levelling sensing head of this magnetometer is inserted as a plug-in unit. It is easily detached so that the same magnetometer can be used with other types of sensing heads such as the airborne gyro stabilized head etc.

It is recommended that the instrument be re-calibrated at our servicing depot, each time the sensing head is changed.

2-6 ORIENTATION ERROR

The orientation error is set at the factory to 25 gammas or less in the presence of a 15,000 gamma horizontal field. It is poss-

ible to adjust the orientation error and the procedure is explained in the section 9-2 under Maintenance.

2-7 TEMPERATURE STABILITY

Over the temperature range of -35 to $+55$ degrees centigrade the temperature drift is limited to less than 50 gammas. See section 4-6 on Minimizing Temperature Drift.

2-8 BATTERY SUPPLY

The M700 Magnetometer is powered by two internally mounted 9 volt batteries. Any pair of the following batteries may be used.

Eveready No. 276
Mallory No. M1603
Burgess No. D6
R. C. A. No. VS306

For sub-zero operation the batteries may be transferred to an external battery case and carried under clothing to keep them from freezing. See section 6, Operation with External Batteries.

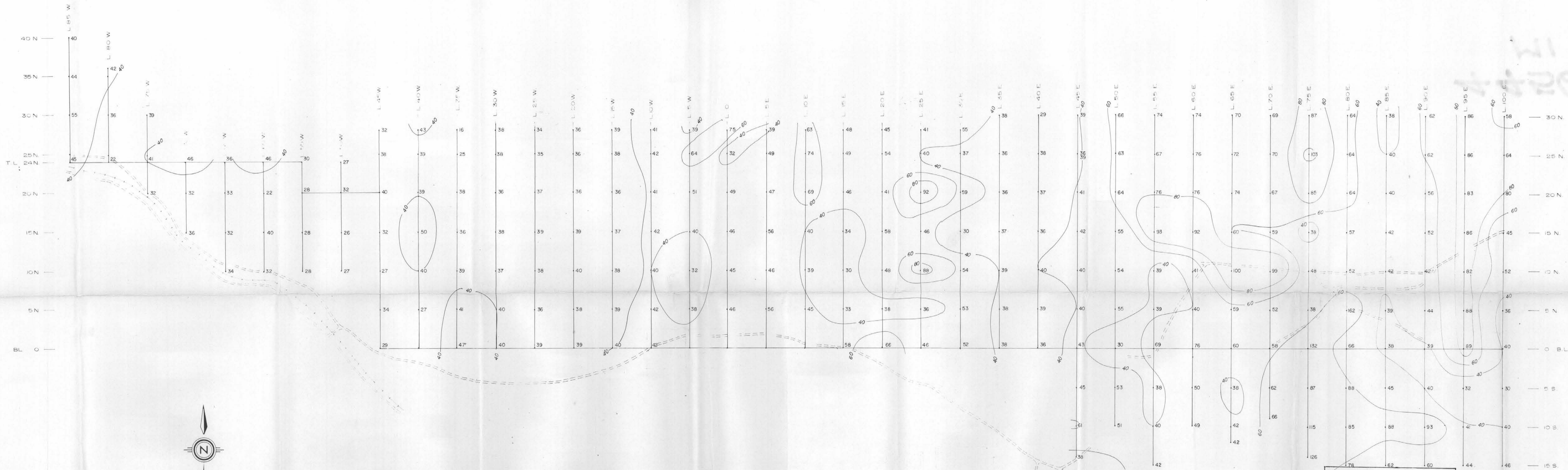
Two types of external battery cases are available see accessory list, section 11. One type is for the above batteries. Another type of case will accommodate the equivalent in flashlight cells for use in countries where the normal batteries are difficult to obtain.

2-9 ACCESSORY RECEPTACLE

A Cannon receptacle is located on the side of the instrument under the sliding panel. This increases the versatility of the instrument so it can be used in a number of ways in addition to its normal vertical field ground magnetometer function. See section 8, under Extended Applications and section 11, under Accessories.

2-10 ACCESSORY & LATITUDE SWITCH

This is a double function switch. The first function is to permit operation north or south of the equator by simply changing one step



2000
13

4456
MI



LEGEND

40 COPPER IN PPM.
COPPER CONTOUR (Interval 20 ppm)

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4456
MI

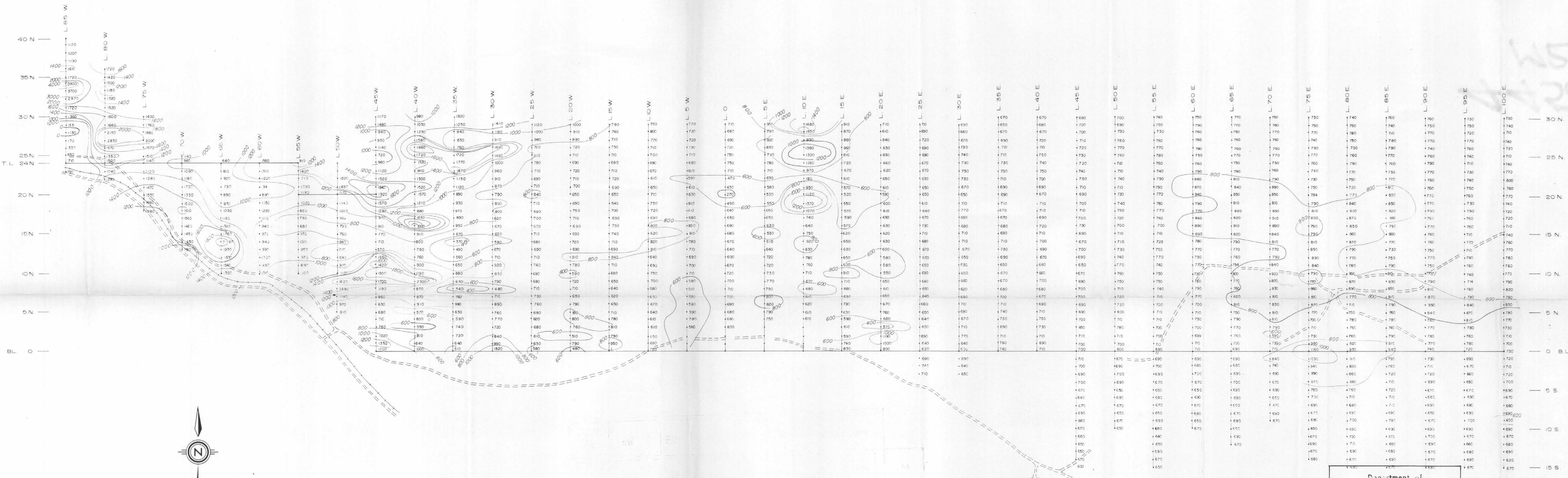
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BD & DB GROUP

GEOCHEMICAL SURVEY

KAMLOOPS MINING DIVISION, B.C.

SCALE
0 500 1000 1500 FEET

W.G. TIMMINS P. Eng.



LEGEND
 • 1120 Magnetometer Reading in Gammas
 1000 Magnetometer Contour in Interval of 200 gammas

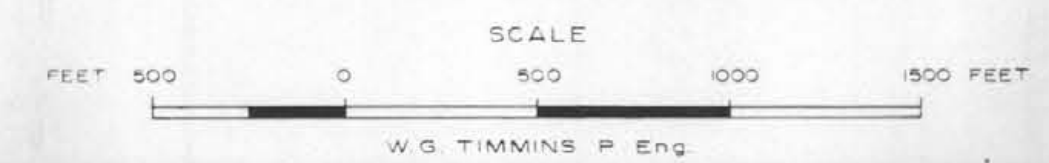
Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 4456 MAP #2

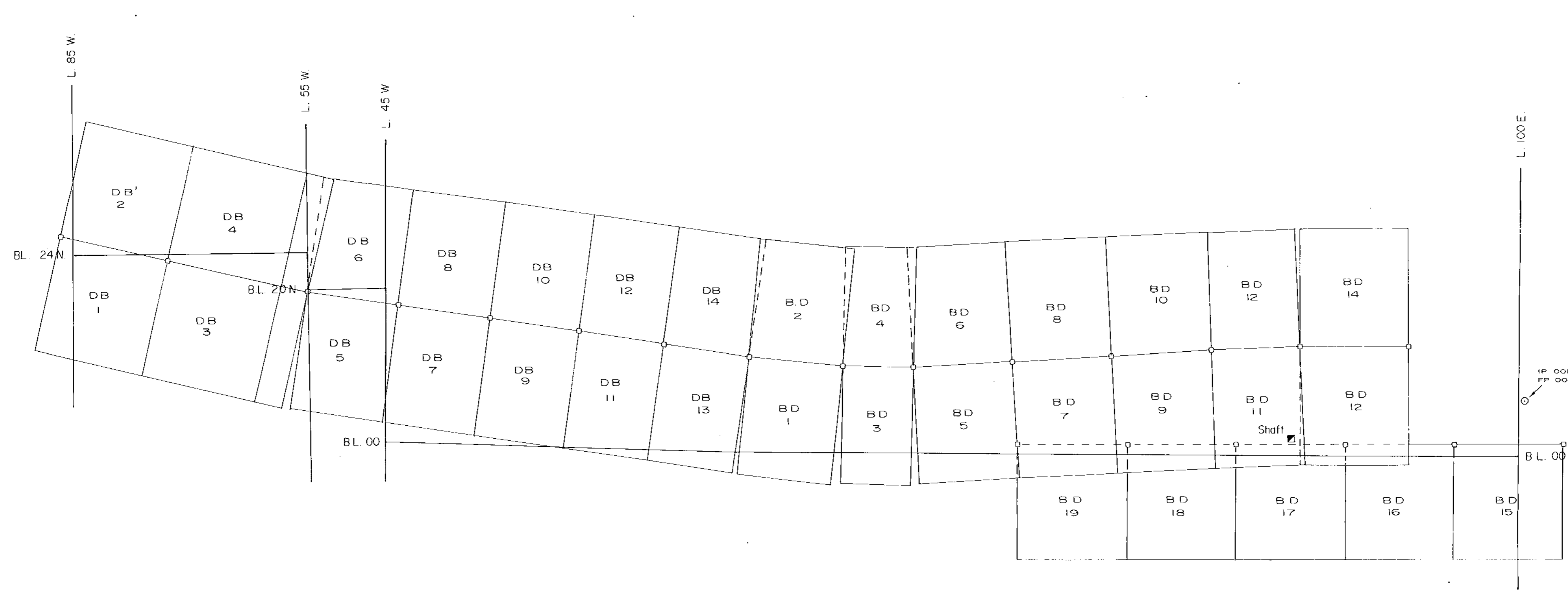
4456
MR

BARREL RESOURCES LTD.
 BD & DB GROUP

MAGNETOMETER SURVEY

KAMLOOPS MINING DIVISION, B.C.





Department of
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BARREL RESOURCES LTD.
 BD & DB GROUP
CLAIM MAP
 KAMLOOPS MINING DIVISION, B.C.
 SCALE
 FEET 1000 0 1000 2000 FEET
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