

1678

REPORT ON A

MAGNETOMETER SURVEY

ON THE

LUCKY, BUCK, AND AB GROUPS,

OMINECA MINING DIVISION, B. C.

AGILIS EXPLORATION SERVICES LTD.

AUGUST 27, 1968

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Maps

Scale

Base Map	1 inch = 400 feet <sup>#2</sup>
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Magnetometer Survey Contour Map	1 inch = 400 feet <sup>#3</sup>

REPORT ON A  
MAGNETOMETER SURVEY  
ON THE  
LUCKY, BUCK, AND AB GROUPS,  
OMINECA MINING DIVISION, B. C.

INTRODUCTION:

The Lucky, Buck, and AB Groups consist of 28 contiguous mineral claims situated 100 miles north-east of Smithers, British Columbia.

A magnetometer survey was carried out over 20 claims during August, 1968 by personnel of Agilis Exploration Services Ltd. under the supervision of the writer. Results indicate a northerly trend to the underlying rock structures, although no outcrop was noted within the surveyed area.

Due to the remoteness and cost of transportation into the area, the survey was carried out between the time of staking and recording the AB claims.

LOCATION AND ACCESS:

The claims lie immediately southwest of a sharp bend in Duckling Creek 100 miles northeast of Smithers, British Columbia. Co-ordinates are  $125^{\circ} 22'$  west longitude,  $55^{\circ} 52'$  north latitude.

Access is by helicopter from Smithers. A road passes .6 miles to the east of the property, thus

road access could be established relatively inexpensively.

PHYSIOGRAPHY:

Lying within the Omineca Mountains, elevations on the claim group vary between approximately 4000 and 4500 feet above sea-level. The claims occupy a broad, fairly flat area sloping gently to the northeast towards Duckling Creek.

Timber is present throughout. While underbrush is not thick, swampy areas are frequent. Overburden is extensive over the entire property.

CLAIMS:

The property consists of the following 28 contiguous mineral claims.

<u>Claims</u>	<u>Record Numbers</u>
Lucky 1 - 12	53300 - 311
Buck 1 - 8	60385 - 392
AB 1 - 8	not available

GEOLOGY:

The area in which the claims lie has been mapped by the Geological Survey of Canada and published at a scale of 1 inch = 4 miles as map 844A, Takla Map Sheet. This shows the claims to lie within a large intrusive mass belonging to the Omineca Intrusions of Upper Jurassic or Cretaceous Age. In general the composition of these intrusions consist of granodiorite to quartz-diorite with minor basic phases along the margins.

Copper deposits occurring within the intrusives have been investigated a short distance to the east and northwest of the property.

During the magnetometer survey no outcrop was noted on the property.

MAGNETOMETER SURVEY:

Control Grid:

Use was made of claim lines as base-lines, with cross-lines spaced at 400 foot intervals. These were tied into base stations, and to adjoining lines at their outer ends.

All lines were established by chain and compass and indicated by blazing or flagging, with stations marked at 100 foot intervals.

Instrument Used:

A Sharpe, MF-1 fluxgate magnetometer was employed for the survey. This is a hand held, self orienting instrument requiring only coarse levelling.

The instrument measures the earths vertical magnetic field to within 5 gammas on the most sensitive scale. Five scales provide a range varying from plus or minus 1,000 gammas to plus or minus 100,000 gammas. Values are read directly from an ammeter type scale.

Field Procedure:

Base stations were established at 400 foot intervals along all base lines. In establishing these, two readings were taken at each station and the average used in subsequent calculations. Each loop ended at the station at which it began with the maximum duration of each loop approximately 45 minutes.

Readings were taken at 100 foot intervals on all cross-lines with each loop begining and ending at a base station. Loops averaged approximately 60 - 90 minutes with an allowable diurnal variation of 1 gamma per minute. Loops were rerun when the diurnal variation was found to be excessive.

Corrections:

With this instrument, temperature corrections have been eliminated, and field corrections were only applied to diurnal variations. This variation is assumed to be linear and the correction for any station is taken as the ratio of the elapsed time for that station to the total elapsed time during the loop, multiplied by the total diurnal variation for the loop. This correction is then added or subtracted to the station reading taken in the field.

RESULTS OF THE SURVEY:

Field results have been plotted at a scale of 1 inch = 400 feet and contoured at 500 gamma intervals. This shows a distinct north to slightly east of north, trend, with values ranging between approximately 1500 and 6300 gammas.

The central portion of the surveyed area consists of a general magnetic high bounded by regions of lower magnetic susceptibility to the east and west, the lowest values occurring to the southwest.

The strongest magnetic high occurring in the southeast portion of the general high measures 3000 feet in a north-south direction by up to 800 feet wide. Values here are generally above 4000 gammas with a peak value of 6335 gammas.

In the northwest corner a series of small lineal magnetic highs and lows trend north-northeast.

CONCLUSIONS AND RECOMMENDATIONS:

The magnetometer survey shows a northerly trend in the area, which could be a reflection of faulting or a linear trend in the intrusive mass. The magnetic high might represent a more basic phase of the intrusive. As no bedrock was seen the cause of this trend and the magnetic highs cannot be definitely determined.

The significance of these features can only be determined through further work in the area. This should take the form of geological mapping in the surrounding area where outcrops might be found, plus a geochemical survey of the gridded area.

Respectfully Submitted,

A handwritten signature in cursive script, appearing to read 'R. H. D. Philp', written in dark ink.

R. H. D. Philp, P. Eng.

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.  
To Wit:

In the Matter of the magnetometer survey  
conducted over the Lucky, Buck and AB claims  
in the Omineca Mining Division.

I, Ronald H. D. Philp

of 812 Blundell Road, Richmond, B. C.

in the Province of British Columbia, do solemnly declare that the following personnel were employed and costs incurred in conducting the survey.

Time and Cost Distribution

Personnel:

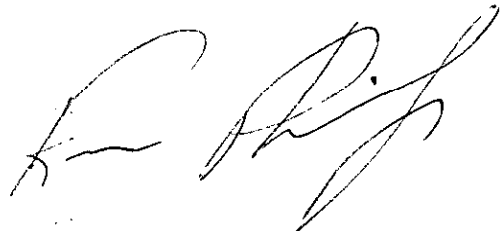
R. MacBean - magnetometer operator.	500.00
	350.00
	200.00
Miyagawa - draughting	<u>144.75</u>
	\$1,239.75

Disbursements:

Airfares: Vancouver - Smithers return -2 men	\$200.00
Miscellaneous travel expenses	82.00
Helicopter and fuel	1001.80
Fixed wing	91.76
Magnetometer rental	165.00
Camp costs, miscellaneous 28 man-days @ \$7.50/man-day =	<u>210.00</u>
Total costs	<u>\$2,990.31</u>

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the *City*  
of *Vancouver*, in the  
Province of British Columbia, this *9th*  
day of *September, 1968*, A.D.



*J. Paul*  
A Commissioner for taking Affidavits for British Columbia or  
A Notary Public in and for the Province of British Columbia.

SUB - MINING RECORDER



AGILIS EXPLORATIONS LTD.

BELCARRA MINES LTD.

Invoice No. 68-208

Re: Magnetometer Survey - Duckling Creek Property

Personnel:

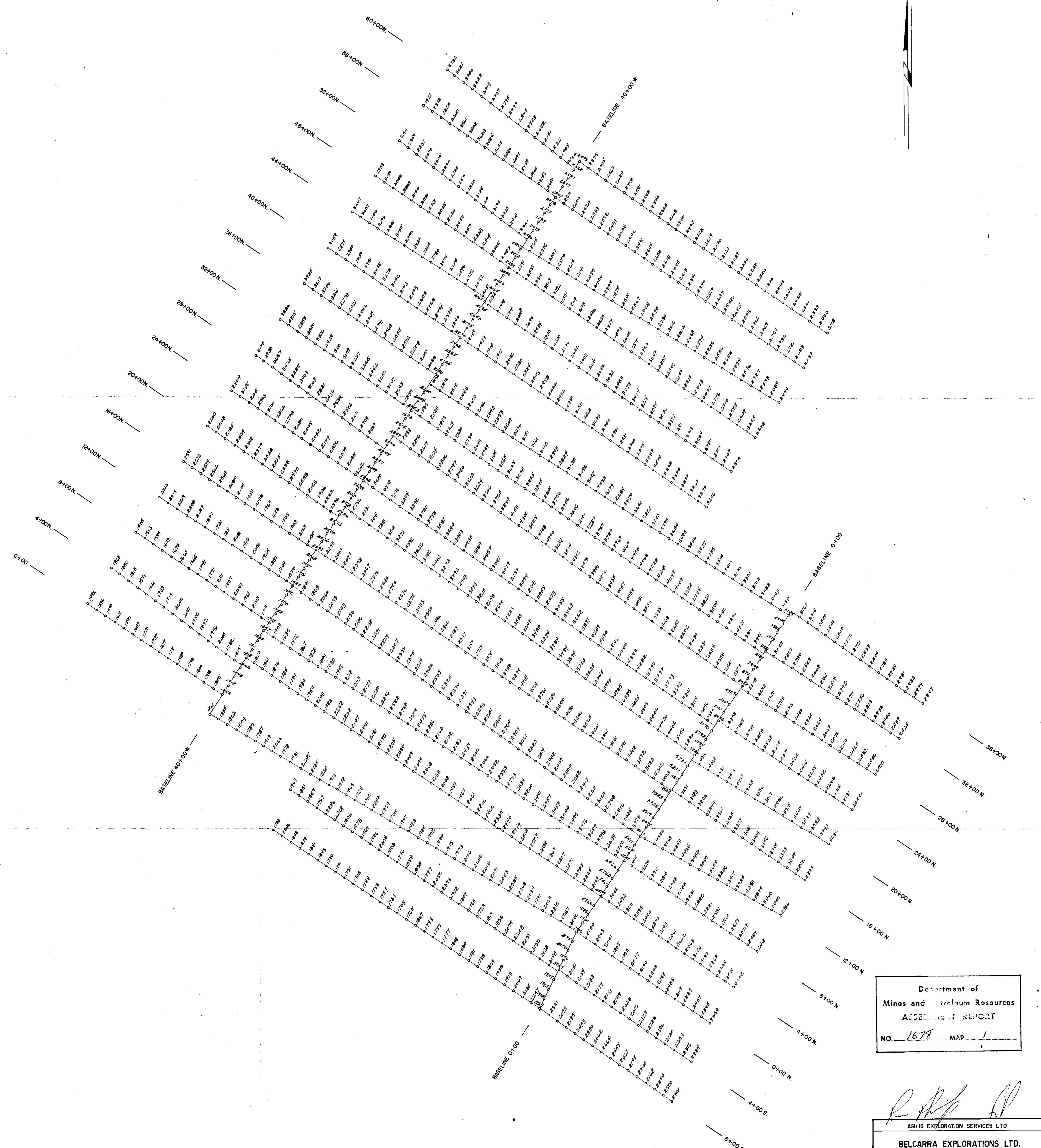
R. Philp - office - report, filing assessment work	\$250.00
R. MacBean - field and office	560.00
J. Rey - field	350.00

Disbursements:

Filing assessment work and grouping	\$141.00	
Record 8 claims	40.00	
Telephone	12.70	
Airfare - Vancouver-Smithers return, 2 men	200.00	
Helicopter	913.00	
Fuel for helicopter	88.80	
Fixed wing aircraft	91.76	
Draughting	114.75	
Printing maps	4.01	
Typing	10.50	
Meals and accomodation	28.00	
Groceries	128.01	
Taxis and limousines	27.00	
Supplies	30.57	
Excess baggage and freight	27.00	
Magnetometer rental	<u>165.00</u>	
		\$2022.10
+ 10% overhead on disbursements		<u>202.21</u>
Total		\$3384.31
Less: amount advanced		<u>1500.00</u>
Balance outstanding		<u>\$1884.31</u>

September 9, 1968

acp

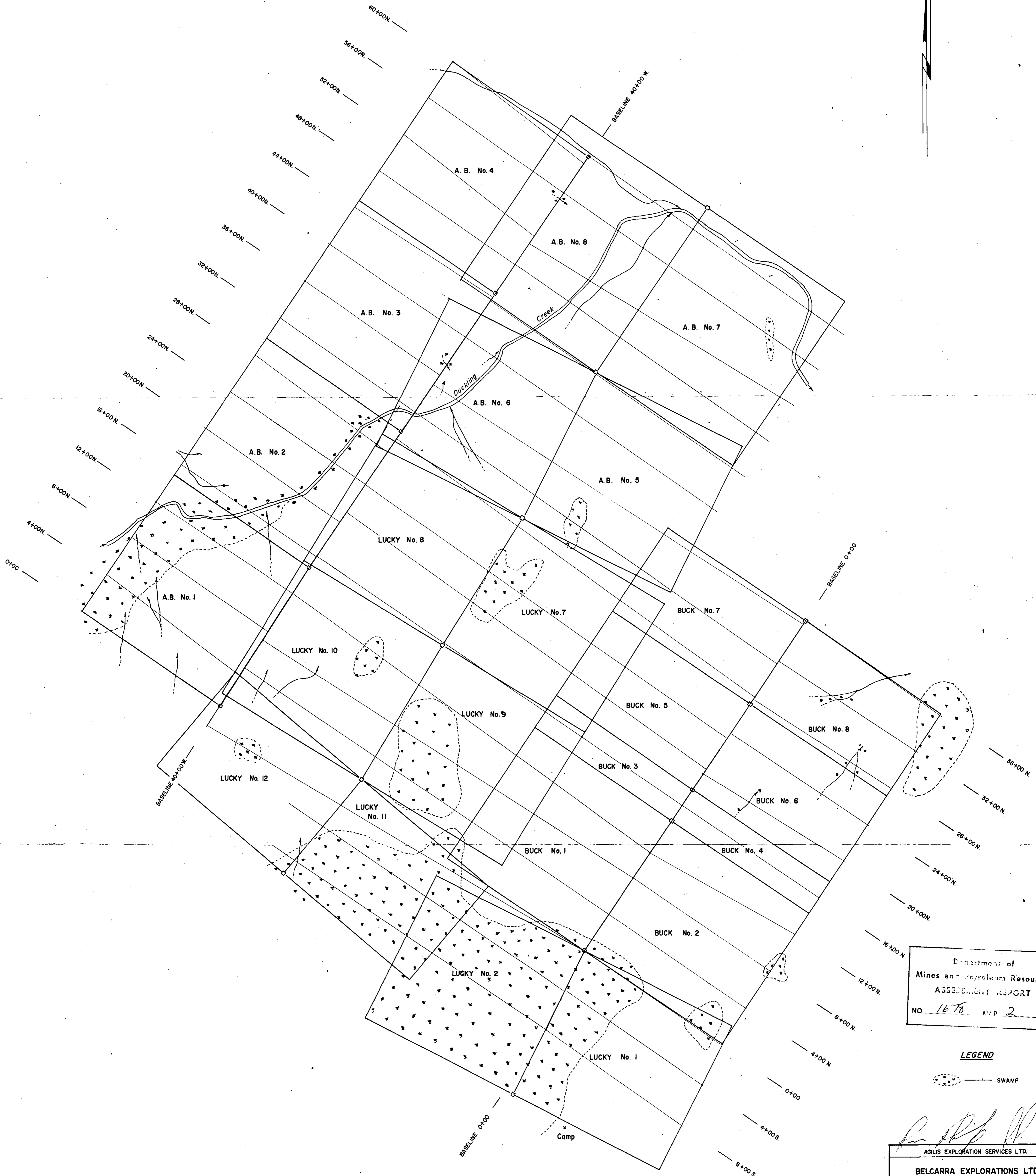


Department of  
Mines and Petroleum Resources  
ANNUAL REPORT  
NO. 1678 MAP 1

*[Signature]*  
AGLIS EXPLORATION SERVICES LTD.  
BELCARRA EXPLORATIONS LTD.  
LUCKY, BUCK & A.B. GROUPS  
Magnetometer Survey ①  
DRAWN BY: K. K. SCALE: 1" = 400 Feet  
CHECKED BY: R. P. DATE: August, 1968

INSTRUMENT: Sharpe MF-1 No. 30544  
Values in gammas

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Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 1678 MAP 2

**LEGEND**

SWAMP

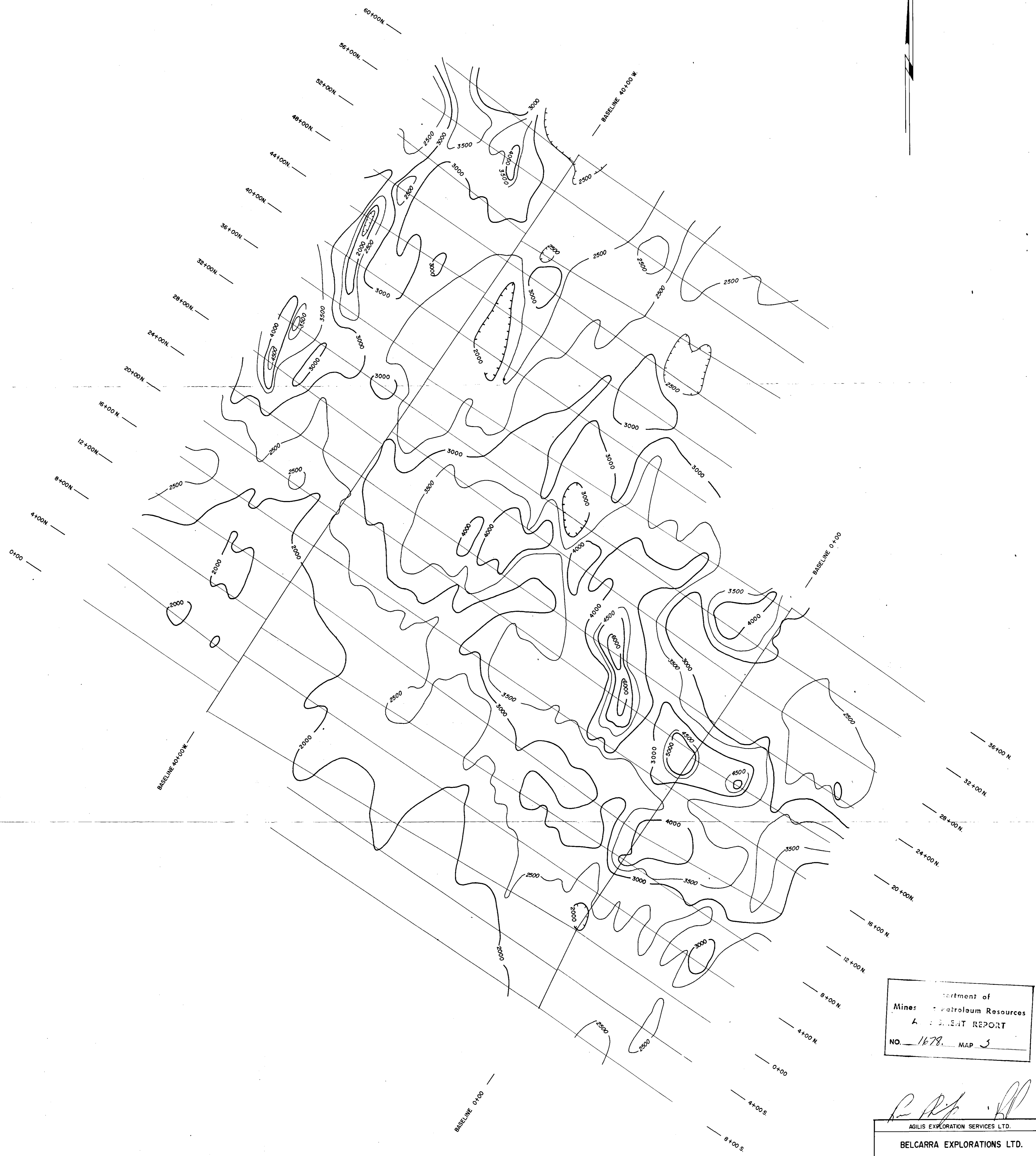
*[Signature]*  
AGLIS EXPLORATION SERVICES LTD.

**BELCARRA EXPLORATIONS LTD.**

LUCKY, BUCK & A.B. GROUPS  
**Base Map** ②

DRAWN BY: K. K.	SCALE: 1" = 400 Feet
CHECKED BY: R. P.	DATE: August, 1968

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Department of  
Mines & Petroleum Resources  
ANNUAL REPORT  
NO. 1678 MAP 5

*R.P.P.*  
AGILIS EXPLORATION SERVICES LTD.

BELCARRA EXPLORATIONS LTD.  
LUCKY, BUCK & A.B. GROUPS  
**Magnetometer Survey** ③  
**Contours**  
DRAWN BY: K. K. SCALE: 1" = 400 Feet  
CHECKED BY: R. P. DATE: August, 1968

INSTRUMENT: Sharpe M.F.-1 No. 30544  
CONTOUR INTERVAL: 500 gammas

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