

1786

REPORT ON  
AIRBORNE GEOPHYSICAL SURVEY  
TELEGRAPH CREEK AREA, B.C.  
ON BEHALF OF  
CORONET MINES LTD.

by

Richard O. Crosby, B.Sc., P.Eng.

November 20, 1968

Claims:

<u>Name</u>	<u>Record Numbers</u>
ANG 1 to 48 (inclusive)	30783 to 30830 (inclusive)

Location:

35 miles west southwest of Telegraph Creek,  
British Columbia  
57° 48' North Latitude 131° 55' West Longitude

Date:

September 25, 1968

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- Plate 2 - Flight Lines and Claim Locations  
1" = 1000' #2

SUMMARY

A helicopter-borne magnetometer survey was executed over approximately 6 square miles in the Telegraph Creek area, British Columbia. The survey revealed an anomaly measuring approximately 2500 feet by 1200 feet which is interpreted as the magnetic expression of an igneous rock.

Recommendations have been made for a ground follow-up program.

REPORT ON  
AIRBORNE GEOPHYSICAL SURVEY  
TELEGRAPH CREEK AREA, B.C.  
ON BEHALF OF  
CORONET MINES LTD.

INTRODUCTION

On September 25, 1968, an airborne magnetometer survey was executed on behalf of Coronet Mines Limited, in the Telegraph Creek area, British Columbia covering approximately six square miles.

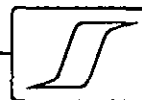
Appendix A, gives full technical details of the airborne geophysical equipment and the ancillary equipment employed, as well as the compilation of the data resulting from this survey.

The aeromagnetic survey lines were flown at 400' intervals oriented east-west at a mean terrain clearance of 300'. Flight navigation and flight path recovery have been based upon photomosaics on the scale of approximately 1" = 1000'.

The purpose of the survey was to attempt to locate a suspected intrusive underlying a gossan zone in argillaceous and volcanic rocks, which geochemically revealed anomalous molybdenum values.

REGIONAL GEOLOGY

According to information provided by the Coronet Mines Ltd., "The dominant geological feature of the Telegraph Creek area is its position within a large embayment in the Coast Range batholithic complex. Five small acid to intermediate plutons, all with some degree of MoS<sub>2</sub>



mineralization associated with them, occur in a belt along the northern edge of the embayment, but within the sedimentary and volcanic strata which occupy it. The survey area lies within this belt."

#### DISCUSSION OF RESULTS

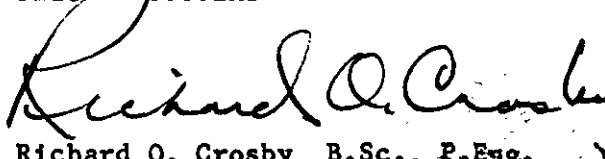
The magnetic field in the survey area is dominated by an elongated anomaly extending eastward from the west central part of the survey grid for a distance of about 2500 feet, and measuring about 1200' in a north-south direction, lying between flight lines 10 and 12. The remainder of the area is relatively featured.

The above anomaly is interpreted as the magnetic expression of an intrusive rock located about 100' below the surface of the ground.

The recommended procedure for ground follow-up should commence with a detailed magnetometer survey over the anomalous area to accurately locate the peak of the anomaly which would then be tested with a vertical diamond drill hole.

Respectfully submitted,

SEIGEL ASSOCIATES LIMITED



Richard O. Crosby, B.Sc., P.Eng.  
Geophysicist

Vancouver, B.C.  
December 2, 1968



'Appendix A'SCINTREX NPM-1 MAGNETOMETER

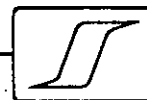
The Scintrex NPM-1 nuclear resonance airborne magnetometer is based on a Newmont modification of a Varian Associates magnetometer and is produced under license to both companies. It is a very light weight, solid state unit, especially designed for use in a helicopter or light fixed-wing aircraft where weight is an important consideration.

Its cycle period is 1.1 seconds. Each cycle it measures the total intensity of the earth's magnetic field and this quantity, in gammas, is recorded, in analogue form, on a suitable graphic recorder. The full scale sensitivity is usually 1000 gammas and the recorder automatically steps each 500 gammas. In very active areas a full scale sensitivity of 5000 gammas with steps of 2,500 gammas may be employed. Only the magnetic variations are actually recorded although the absolute base level may be established from the NPM-1 as well.

The magnetic sensing head may be on a cable as much as 100 ft. below the aircraft or, in some installations, may be rigidly attached to the aircraft on a suitable boom.

The intrinsic noise level of each reading is about 5 gammas.

Where it is intended to contour the NPM-1 information it is customary to fly tie lines across the survey grid. A fixed magnetic field monitor is often used as well, on the ground, primarily to indicate periods of magnetic storms during which the aeromagnetic data should be considered as unreliable.



## ANGILLARY EQUIPMENT

### 1. Altimeter

A Bonzer, high frequency solid state radioaltimeter is employed to continuously indicate the mean terrain clearance of the helicopter or other transporting aircraft. The altimeter is installed in the aircraft (unless otherwise indicated) so that the elevation of the sensing birds (electromagnetic or magnetic) will be less by the usual vertical displacement of these birds below the aircraft.

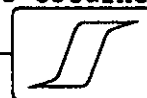
The output of the Bonzer may be expressed in analogue form on a suitable graphic recorder, or may be, for convenience, converted to a semi-digital form on a recorder side pen. In the latter event the altimeter record is a series of spaced pulses whose separation is proportional to the mean terrain clearance.

### 2. Positioning Camera

A Vinten Mark 3 16 mm positioning camera is employed with a wide angle lens. Photographs of the ground are taken with sufficient frequency to give a complete record of the flight path of the aircraft or helicopter. The frequency of exposure is controlled by the intervalometer referred to below.

### 3. Intervalometer

A Scintrex IA-2 intervalometer provides regularly spaced timing pulses which drive the positioning camera exposure mechanism and produces synchronous "fiducial marks" on the side pen of the geophysical graphic recorder or recorders. Because of the synchronization of the geophysical traces and the positioning camera it is then possible to relate the geophysical events of interest to their proper ground location. The timing pulse frequency may be adjusted in accordance with the ground speed of the aircraft so that an adequate flight path record is obtained.







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

**In the Matter of**

a geophysical survey on behalf of  
Coronet Mines Ltd.

I, **E. M. Flett for Seigel Associates Limited**

of **750 - 890 West Pender St., Vancouver**

in the Province of British Columbia, do solemnly declare that a helicopter-borne magnetometer survey has been executed on ANG Claims 1 to 48 inclusive, 35 miles west southwest of Telegraph Creek, B.C. on September 25, 1968. The following expenses were incurred:

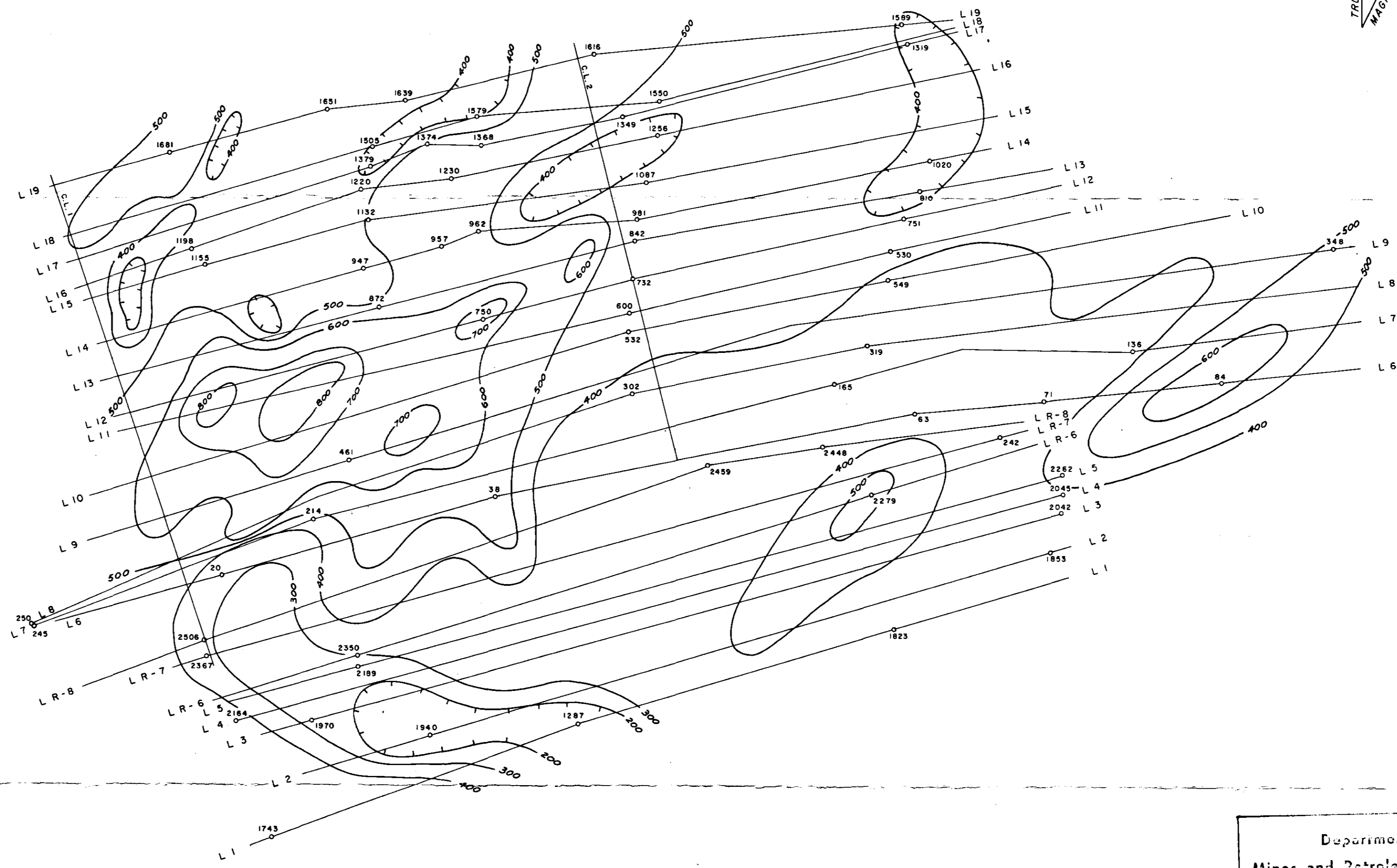
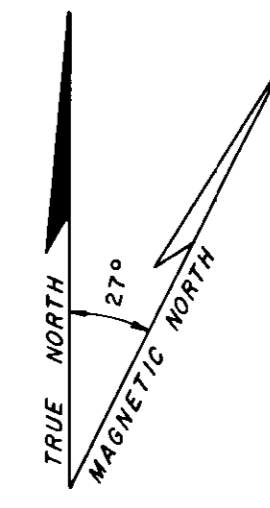
(1) Wages:			
R. Pollard	7 days @ \$40/day	\$280.00	
M. Herz & staff	6 days @ \$50/day	<u>300.00</u>	\$580.00
(2) Transportation & Shipping			253.55
(3) Food & Living Expenses			127.01
(4) Consulting Fees			<u>3,720.00</u>
			\$4,680.56

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 **7th**  
day of **February**, 1969, A.D.

*E M Flett*

*[Signature]*  
A Commissioner for taking Affidavits for British Columbia or  
A Notary Public in and for the Province of British Columbia.



**LEGEND:**

- FLIGHT LINES AND PHOTO IDENTITY POINTS
  - ISOMAGNETIC CONTOURS
  - MAGNETIC DEPRESSION
- FLIGHT ALTITUDE: 300' MEAN TERRAIN CLEARANCE

Department of  
Mines and Petroleum Resources  
NO. 1786

**PLATE I**

**CORONET MINES LIMITED (N.P.L.)**  
TELEGRAPH CREEK AREA, BRITISH COLUMBIA  
**AIRBORNE MAGNETOMETER SURVEY**

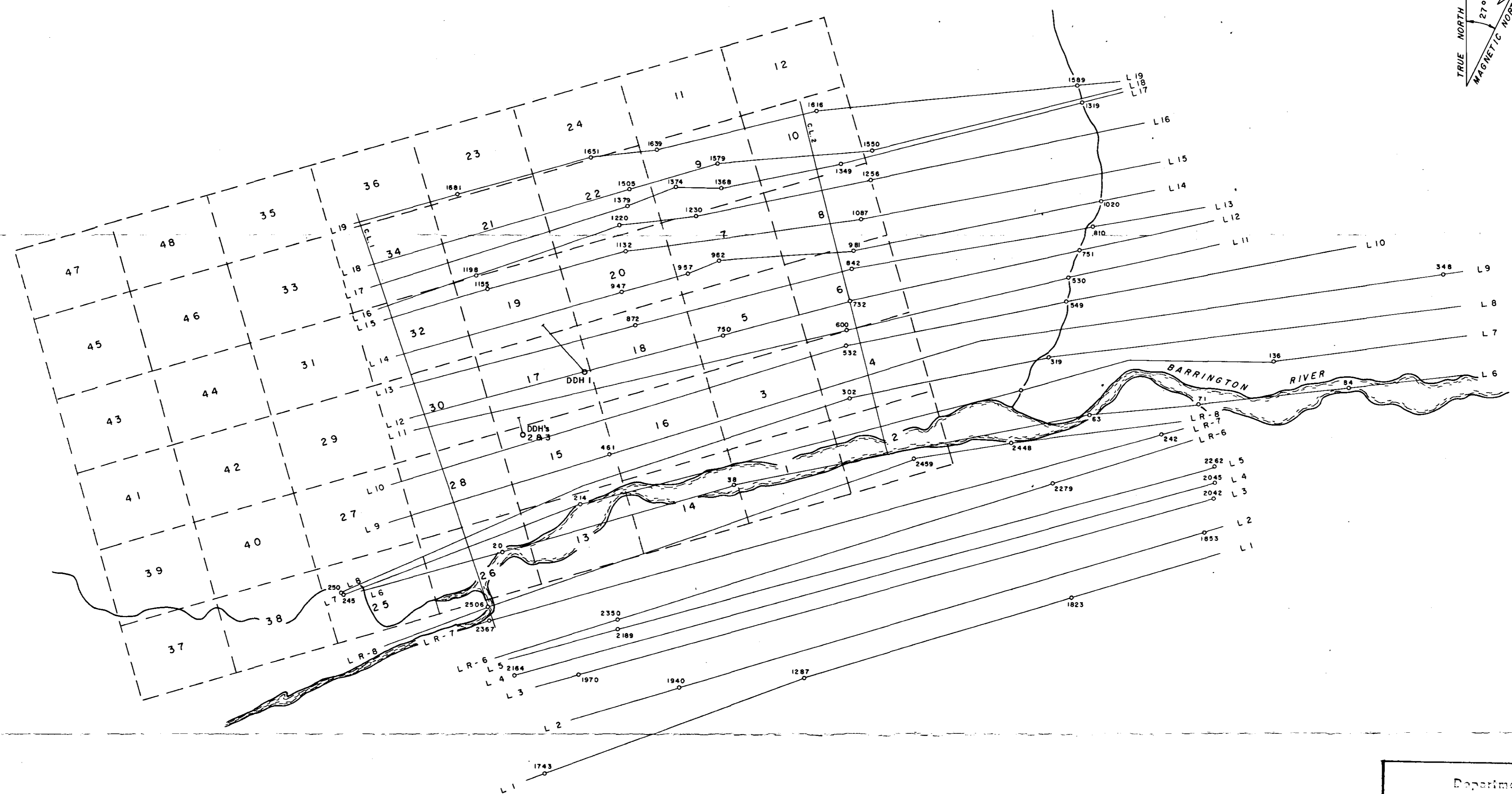
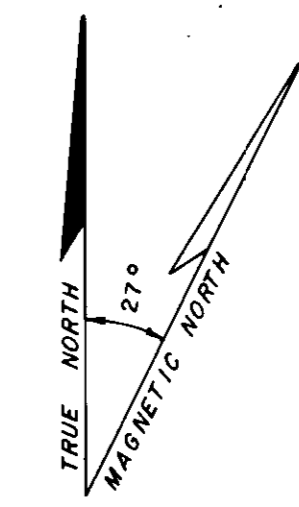
SCALE: 1" = 1000' (APPROX.)

SURVEY BY SEIGEL ASSOCIATES LIMITED  
SEPTEMBER, 1968

TO ACCOMPANY A GEOPHYSICAL REPORT BY  
RICHARD O. CROSBY DATED DECEMBER 2, 1968

1786

*R. O. Crosby*  
*for MBR*  
①



**LEGEND:**  
 ○ 245 214 FLIGHT LINES AND PHOTO IDENTITY POINTS  
 FLIGHT ALTITUDE : 300' MEAN TERRAIN CLEARANCE

Department of  
 Mines and Petroleum Resources  
 ASSIGNMENT REPORT  
 NO. 1786 MAP 2  
**PLATE 2**

**CORONET MINES LIMITED (N.P.L.)**  
 TELEGRAPH CREEK AREA, BRITISH COLUMBIA  
**FLIGHT LINES AND CLAIM LOCATIONS**  
 ANG CLAIM GROUP  
 SCALE : 1" = 1000' (APPROX.)

TO ACCOMPANY A GEOPHYSICAL REPORT BY  
 RICHARD O. CROSBY DATED DECEMBER 2, 1968

SURVEY BY SEIGEL ASSOCIATES LIMITED  
 SEPTEMBER, 1968

1786

RO. Crosby  
 per [Signature]  
 (2)