

3383

REPORT ON MAGNETOMETER SURVEY

ON

LAKE GROUP MINERAL CLAIMS

CHUCHI LAKE, B. C.

OMINECA MINING DIVISION

55° 13' 124° 43'

93 N / 2E

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3383 MAP.....

Mining Recorder's Office
RECORDED
NOV 18 1971
AT.....
SMITHERS, B.C.

November 1971
Vancouver, B.C.

G. Harper, Ph.D.

D. H. Brown, P.Eng. (B.C.)

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REPORT ON MAGNETOMETER SURVEY

ON

LAKE GROUP MINERAL CLAIMS

INTRODUCTION

An MF-1 one-man magnetometer survey was carried out over eight Chuchi mineral claims in the northern portion of the Lake Group on July 25 to 28, 1971, by M. Prevost under the supervision of Dr. G. Harper.

LOCATION AND ACCESS

The Lake Group mineral claims extend for three miles north of the west end of Chuchi Lake at latitude $55^{\circ} 13'$ and longitude $124^{\circ} 43'$. The southern part of the property is accessible by boat from the east end of Chuchi Lake. The northern part of the property where the above work was done was serviced by helicopter.

SCOPE OF SURVEY

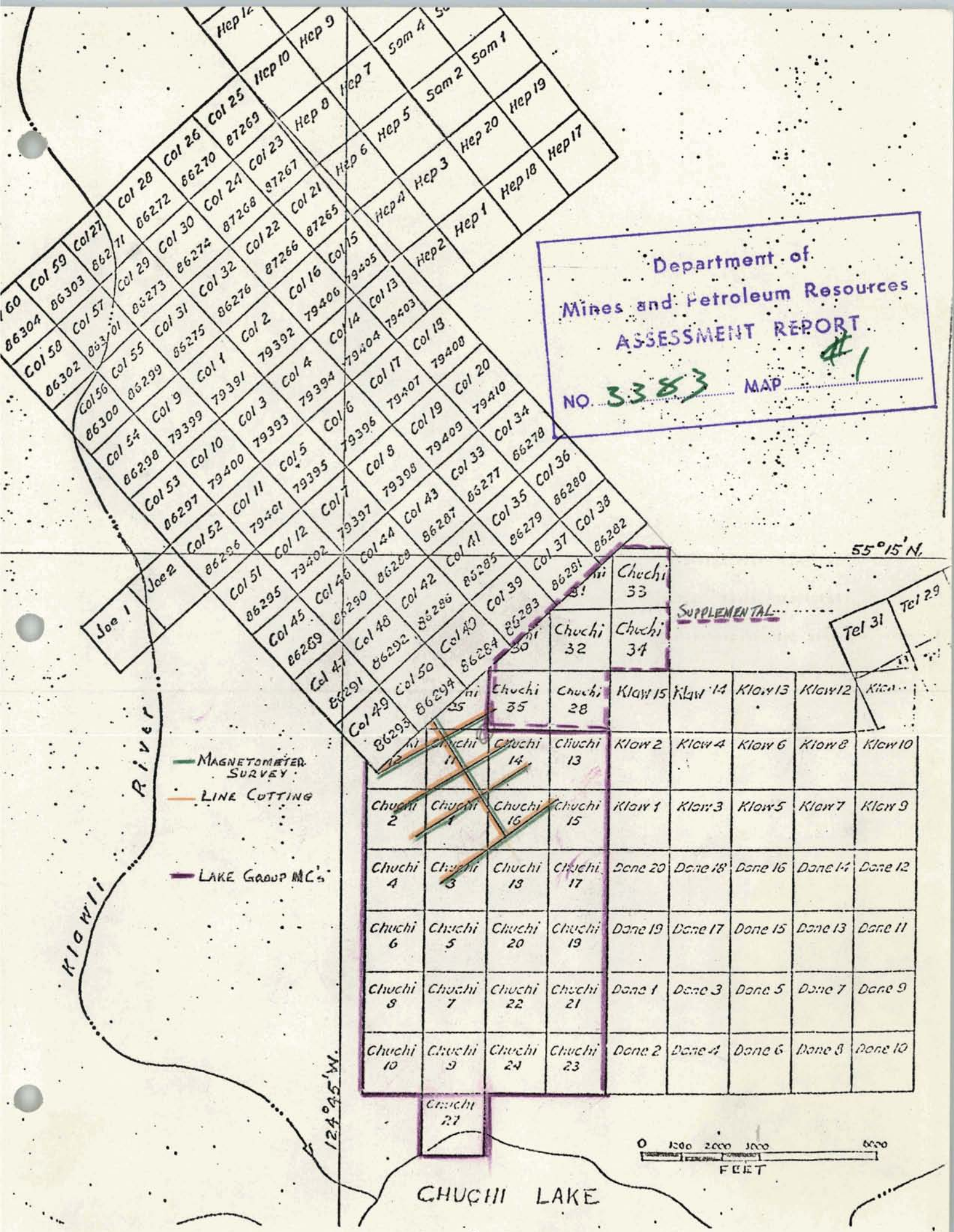
The magnetic survey was carried out on lines cut from a northwest base line in northeast-southwest directions. The lines surveyed within the claim group total 19,840 feet. The magnetometer survey was carried out on 3200 feet of base line and four crosslines measuring 4160 feet each at 50 feet intervals.

METHOD OF SURVEY

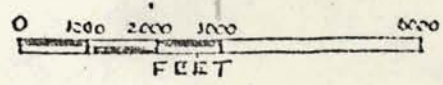
Magnetic readings were taken with a Sharpe MF-1 Fluxgate Magnetometer with a sensitivity of 10 gammas per scale division. A system of base stations was established and a close check was kept on

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NO. 3383 MAP #1



- MAGNETOMETER SURVEY
- LINE CUTTING
- LAKE GROUP MC's



CHUCHI LAKE

Chuchi 33	Chuchi 32	Chuchi 34	SUPPLEMENTAL					
Chuchi 35	Chuchi 28	Klow 15	Klow 14	Klow 13	Klow 12	Klow 11		
Chuchi 11	Chuchi 14	Chuchi 13	Klow 2	Klow 4	Klow 6	Klow 8	Klow 10	
Chuchi 2	Chuchi 1	Chuchi 16	Chuchi 15	Klow 1	Klow 3	Klow 5	Klow 7	Klow 9
Chuchi 4	Chuchi 3	Chuchi 18	Chuchi 17	Done 20	Done 18	Done 16	Done 14	Done 12
Chuchi 6	Chuchi 5	Chuchi 20	Chuchi 19	Done 19	Done 17	Done 15	Done 13	Done 11
Chuchi 8	Chuchi 7	Chuchi 22	Chuchi 21	Done 1	Done 3	Done 5	Done 7	Done 9
Chuchi 10	Chuchi 9	Chuchi 24	Chuchi 23	Done 2	Done 4	Done 6	Done 8	Done 10
Chuchi 27								

the diurnal variations. A factor of 1250 was added to all corrected readings in order to avoid negative numbers.

GEOLOGY

The Lake Group mineral claims are located at the southern end of the Hagem Batholith which is an elongate intrusive mass trending north-northwest for at least 60 miles within the Omineca or Eastern Crystalline Belt of British Columbia. It is mapped by the Geological Survey of Canada (Armstrong, J.E., 1949, Memoir 252) as mainly granodiorite within which are small areas of syenite. This batholith is intrusive into the Triassic-Jurassic Takla Group.

The purpose of the magnetometer survey was to provide magnetic data which might be related to the I.P. survey data.

PRESENTATION OF RESULTS

A total of 397 readings were taken, adjusted for diurnal correction and calibration factor and plotted on a claim map showing the grid lines as they are located on the ground. These readings were then contoured using significant ranges of gamma readings and are shown on Map 161-71-10.

DISCUSSION OF RESULTS

The area covered by the survey is flat-lying and, in part, swampy country. Geological mapping and diamond drilling in the vicinity show that the area is entirely covered by a thick layer of glacial till. If, as is likely, this overburden is fairly uniformly thick and homogeneous over the whole area, then it is not going to cause significant extraneous magnetic anomalies.

The magnetometer survey defines quite clearly a broad (1000 feet) high zone striking approximately 120° through the centre of the area. A distinct kink in this high zone and in the adjacent lows suggests that the magnetic conductor is displaced by a fault striking approximately 045° immediately southeast of line 76 E. Horizontal displacement on this fault could be as much as 1000 feet.

The flanks of the high zone are characterized by extremely variable magnetic intensity; e.g., the southern part of line 84 E.

CONCLUSIONS

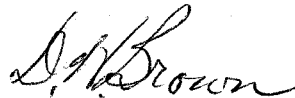
The survey clearly delimits a highly magnetic conductor trending approximately 120° through the centre of the area. This conductor is considered to be caused by a bedrock anomaly that other surveys have shown to extend nearly two miles to the northwest into an area of known copper mineralization. It appears to have been displaced sinistrally by a northwesterly trending tear fault.

The above magnetometer survey data will be used in the comprehensive geophysical assessment including the I.P. survey data.

Respectfully submitted,



G. Harper, Ph.D.



D. H. Brown, P.Eng. (B.C.)

November 1971
Vancouver, B.C.

DOMINION OF CANADA:
 PROVINCE OF BRITISH COLUMBIA:

In the Matter of Geophysical Survey on Chuchi #1, 2, 3, 11, 12, 14, 15, 16, 25 mineral claims (record numbers 91882-91884, 91892, 91893, 91895-91897, 91906) of the Lake Group.

To Wit:

I, D. H. Brown

of #504 - 1112 West Pender Street, Vancouver 1, B.C.

in the Province of British Columbia, do solemnly declare that the following work was done on the Lake Group mineral claims:

I.P. Survey

Miles surveyed - 2
 No. of readings - 100

Personnel	Position	Dates	Days	Rate/Day	Charges	Total
P. Smith	Sr. Operator	Sept. 24-27	4	\$90.00	\$360.00	
J. Leclerc	Operator	" " "	4	70.00	280.00	
R. Smith	Operator-Asst.	" " "	4	35.00	140.00	
R. McGuire	Assistant	" " "	4	45.00	180.00	
G. Thomassen	"	" " "	4	45.00	180.00	
L. McLeod	"	" " "	4	35.00	140.00	\$1,280.00

Note: Thomassen and McLeod required for preparation of contact holes.

Equipment Rental	5	70.00	350.00
Transportation - Charter Helicopter - 3 hrs. @ \$250.00/hour			750.00
			<u>2,380.00</u>

Line Cutting (Terrex Mining Services)

18,700 ft. (3.54 mi.) - July 6-11 - @ \$150.00/mile	531.00	
Messing Costs - 10 man days - @ \$7.00/day	70.00	
Mobilization - Helicopter - 1 hour @ \$250.00/hr.	250.00	851.00

Physical Work (Line Cutting) in the amount of \$800.00 to be applied to Chuchi 1, 2, 3, 11, 12, 14, 16, and 25.

Magnetometer Survey

18,700 ft. (3.54 miles)		
Operator - M. Prevost - July 25-28 - 3½ days @ \$45.00/day	157.50	
Drafting - M. Prevost - Aug. 27-28 - 1½ days @ \$45.00/day	67.50	225.00
		<u>\$3,456.00</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 VANCOUVER, B. C., in the

Province of British Columbia NOV 5 1971

day of

[Signature], A.D.
 Sub-Mining Recorder

[Signature]
 D. H. Brown

Sub-Mining Recorder

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

FALCONBRIDGE NICKEL MINES LIMITED

1112 WEST PENDER STREET

VANCOUVER 1, B. C., CANADA

TELEPHONE: 682-6242

TELEX: 04-5938

October 18, 1971

The Chief Mining Recorder
Omineca Mining Division
Smithers, B.C.

Dear Sirs:

Re: Statement of Qualifications

This is to certify that the magnetometer geophysical work done on the Chuchi Mineral Claims and presented in this report was done under the direction of Dr. Gerald Harper, B.Sc. (University College of Rhodesia), Ph.D. (University of London), and under my supervision.

The magnetometer survey field work was performed by M. Provost who has been trained as a magnetometer operator in the field by Falconbridge staff.

I am a graduate in engineering geology from the University of British Columbia and a member of the Association of Professional Engineers of Ontario and British Columbia.

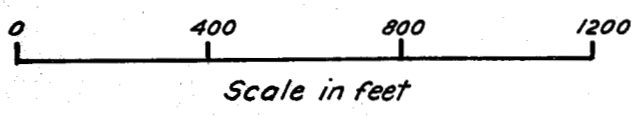
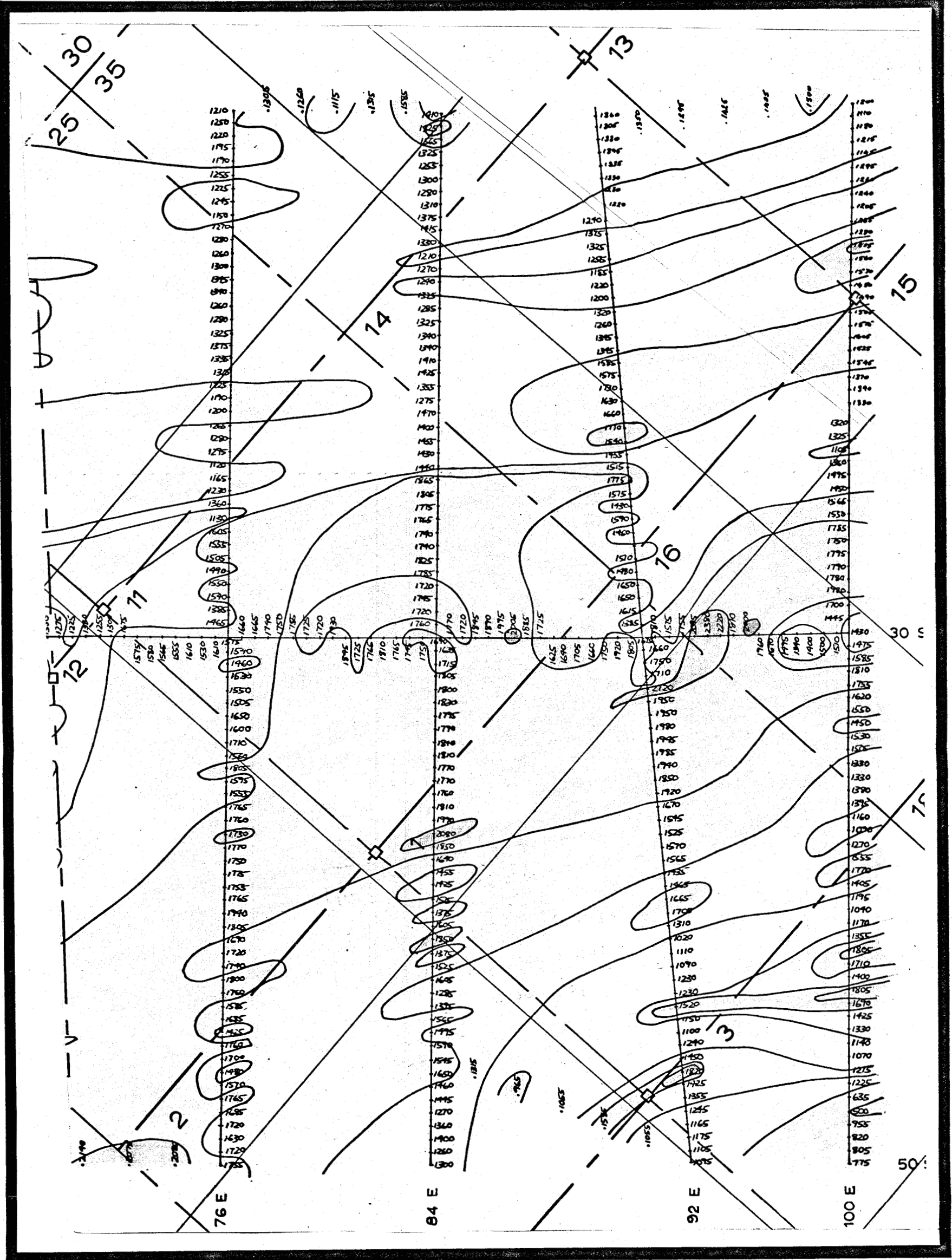
Yours very truly,

FALCONBRIDGE NICKEL MINES LIMITED



D. H. Brown, P.Eng.

DHB:jr



LEGEND

- Above 2500 gammas
- 2000 - 2500 gammas
- 1750 - 2000 gammas
- 1500 - 1750 gammas
- 1250 - 1500 gammas
- 1000 - 1250 gammas
- 500 - 1000 gammas

FALCONBRIDGE NICKEL MINES LIMITED		
PROPERTY:		
NATION LAKES CLAIMS, P.N. 162		
LOCATION:		
OMINECA MINING DIVISION		
TYPE OF MAP:		
GEOPHYSICAL		
WORKING PLACE: Chuchi Claims		
BASED ON: MF1 MAGNETOMETER SURVEY		
DATE OF WORK: 1971	MAP REF. NO.: 161-71-10	FIG. NO.:
DRAWN BY: M PREVOST		2
DATE: 10 SEPT. 1971	N.T.S. NO.: 93-N-2	

N
D.B. Brown