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REPORT OF

GEOLOGICAL, MAGNETOMETER AND GEOCHEMICAL SOIL SURVEYS

ON

MOSS CLAIMS 53 TO 71, GNAT LAKE, B.C.

- - -

by D. W. Asbury

Lytton Minerals Limited

- - -

Property situated 16 miles south-southeast
of Dease Lake, Liard Mining Division
British Columbia

(58°14' North Lat., 129°51' West Long.)

Work period: August 10 to October 6, 1967

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REPORT OF

GEOLOGICAL, MAGNETOMETER AND GEOCHEMICAL SOIL SURVEYS

PERFORMED ON MOSS CLAIMS 53 TO 71

GNAT LAKE, LIARD MINING DIVISION, BRITISH COLUMBIA

1) Introduction

During the 1967 field season geological, magnetometer and geochemical soil surveys were carried out on Moss Claims 53 to 71. This report describes the procedures used and the results obtained.

2) Property and Location

The portion of the Moss property covered by the surveys consists of 19 contiguous unpatented mineral claims, Moss claims 53 to 71, record numbers 25185 to 25203, recorded October 8th, 1966.

The group, located in the Liard Mining Division at 58°14' North latitude and 129°51' West longitude, lies immediately west of the Cassiar-Stewart highway, 16 miles south-southwest of Dease Lake and is at an elevation of 4,000 feet. Road distance northward to Cassiar is about 90 miles. When a 60-mile section of the highway south of the Stikine river is completed, the property will be approximately 190 miles by road from tide water at Stewart.

3) History

Moss claims 53 to 71 were staked by Lytton Minerals Limited in September, 1966. No previous exploration work has been done on the group, although copper mineralization a few thousand feet to the east

on the Gnat Lake property of Deas Lake Mines Ltd. was investigated by Cassiar Asbestos Corporation in 1960 and by Newconex Canadian Exploration Ltd. in 1964 and is currently being drilled by Deas Lake Mines.

4) Field Work

Between August 10 and October 6 line cutting, geological mapping and magnetometer and geochemical soil surveys were carried out on the claims.

a) Line Cutting

For survey control the Deas Lake Mines property grid system was extended from the adjoining Moss claims onto the Moss 53 to 71 group. In all, four east-west base lines, totalling 2.5 miles, and 13.9 miles of north-south picket lines at 400-foot intervals, were cut, picketed and chained.

b) Geological Mapping

Geological mapping of the claim group was carried out with reference to stations established at 100-foot intervals along the base and picket lines. This work is plotted on the accompanying map (Figure 1) at a scale of 1" = 400 feet. Overburden covers more than 95% of the area but outcrops are sufficiently scattered to give a fairly good indication of the underlying bedrock, especially when they are considered in conjunction with geology and magnetic trends adjoining claims to the east.

Two main rock types were observed, a volcanic sequence and in-

truding granodiorite. The volcanics were divided into acid, intermediate and basic phases in mapping, but at least some of the differences in appearance are due to alteration. As on the adjoining property to the east, they appear generally massive and featureless, but show a pronounced northeast magnetic trend which is known to roughly correspond to direction of bedding. IN this connection, the main magnetic feature, which is entirely covered by overburden, is the extension of what drilling to the southeast shows to be a coarse-grained, magnetite-rich basic flow or sill.

The granodiorite, which occurs only in the northwest corner of the group, is a medium-grained, granular rock containing grey to pink plagioclase, an estimated 15% free quartz and 1% to 2% mafic minerals. The latter is lower than usual for granitic rocks of the area. As is the case further east, the contact with the volcanics is intermittently marked by high magnetics due to contact metamorphic magnetite.

Traces of chalcopyrite were found in basalt on line 100 W at 23+30N and on line 108 W at 28+10N, but no other mineralization except local finely-disseminated pyrite was noted.

c) Magnetometer Survey

A total of 15.9 miles of picket line were surveyed on the group, using a Sharpe MF-1 magnetometer with a sensitivity of 20 gammas.

Readings along the lines were taken at 100-foot intervals and were corrected with reference to base stations established at regular intervals. The corrected readings were plotted on the accompanying map

(Figure 2) at a scale of 1" = 400 feet.

Chief magnetic feature is a strong anomaly, with relief of up to 2,000 gammas over widths of up to 1,000 feet, which extends into the group for 2,500 feet in a northwest direction. As discussed in the geological section of the report, this feature is believed to be the irregular extension from the adjoining property to the east of a basic magnetite-rich coarse-grained flow or sill.

Only other feature of interest on the property is the narrow, sharp, northwest-striking anomaly which lies north of the 34 N base line at the west boundary of the claim group. It is coincident with the granodiorite-volcanic contact and is undoubtedly caused by contact-metamorphic magnetite concentrations which are known to occur intermittently along other granodiorite contacts in the region.

d) Geochemical Soil Survey

Samples were collected at 100-foot intervals along the 16.4 miles of picket line by means of 1-3/4" augers. An effort was made to collect material from the "B" soil horizon, but well established soil horizons are often lacking in the area and most of the samples consisted of poorly sorted materials with a high humus content.

The samples were dried in their paper geochemical sample bags, after which a portion of the fines was tested for readily-soluble heavy metals by the standard Bloom method. This procedure has been found most effective as an indication of copper in the Gnat Lake area where there is little or no zinc or lead mineralization. Anomalous samples and adjoining background samples are presently being run for total soluble

copper and total soluble zinc by hot acid extraction methods.

Only areas of geochemical interest are on the northwest, northeast and southeast corners of the group where small, relatively weak anomalies occur in completely overburden-covered areas. The strongest geochemical activity, in the northwest, occurs in swampy ground overlying volcanics some 500 feet off the flank of and parallel to the granodiorite intrusive. The anomaly in the northeast corner may extend onto an adjacent claim which has not yet been surveyed. The heavy metal indications in the extreme southeast part of the group are part of a larger area of geochemical activity, without magnetic relief, which is under investigation on claims to the south.

As minor traces of chalcopyrite, which are known to be scattered throughout rocks of the area, could account for these small, weak anomalies, they are not considered to be worth further investigation.

Conclusions

Geological, magnetometer and geochemical heavy metal soil survey results on the Moss 53 to 71 group offer little hope that economic mineralization occurs near surface.

D. W. ASBURY, P.ENG.

November 3, 1967

MAJOR EXPENSES

APPLICABLE TO

GEOLOGICAL, MAGNETOMETER AND GEOCHEMICAL SURVEYS

			$
1)	Wages	-	2,333.85
2)	Camp costs - including meals	-	838.00
3)	Transportation allowance	-	260.00
4)	One month's magnetometer rental at $200 and geochemical supplies	-	446.35
			$3,878.20

CERTIFIED CORRECT

Accountant

--- CERTIFICATE ---

I, DAVID W. ASBURY, do hereby certify:

1) that I am a Geologist, residing at 20 Rothmere Drive, Toronto 12, Ontario;

2) that I am a graduate of the University of Western Ontario, with a B.Sc. degree in Honours Geology (1948);

3) that I am a registered member of the Association of Professional Engineers of Saskatchewan;

4) that as Chief Geologist of the Exploration Department of The Patiño Mining Corporation I survyed the execution of the work herein described by personnel of Lytton Minerals Limited, a subsidiary company of Patiño.

D. W. ASBURY
P. Eng.

Dated at Toronto
November 3, 1967

--- PROJECT PERSONNEL ---

Name	Address	Period	Type of Work	Rate*	Gross
F. Abou	Eddontenajon P.O., B.C.	Aug. 10-12, 14-19, 21-26, 28-31, Sept. 1	Line cutting and geochemical survey	$15.98	$319.60
P. Dennis	Iskut Village, via Atlin, B.C.	Aug. 11-12, 14-18, 21-26, 28-30, Sept. 1	Line cutting and geochemical survey	15.98	271.66
W. Nehass	Gen.Del., Watson Lake, Y.T.	Aug. 10-12, 14-18, 21-26, 28-30, Sept. 1	Line cutting and geological mapping	15.98	287.64
J. Croxall	77 Third St., Kirkland Lake, Ontario	Aug. 14-19 and 21	Line cutting	18.29	128.03
W. Cliffe	29 Hillcrest Ave., Box 51, Wawa, Ont.	Aug. 14-19, 21-26	Line cutting	18.29	219.48
G. Cargill	31 - 7th St., Toronto 14, Ont.	Aug. 26, 28-31, Sept. 1-2, 4-9	Geological mapping and magnetometer survey	22.42	291.46
D. Asbury	20 Rothmere Dr., Toronto 10, Ont.	Aug. 10, 17, Sept. 5, 15, 18, 28	Supervision	50.00	300.00
W. Morrison	55 Devondale Ave., Willowdale, Ont.	Sept. 9, 11-16	Supervision and geochemical survey	35.00	245.00
T. Williams	Box 100, Cassiar, B.C.	Sept. 9	Geochemical survey	15.98	15.98
J. Marion	Box 322, Watson Lake, Y.T.	Sept. 30, Oct. 2-3	Geochemical survey	15.98	47.94
M. Bradford	200 Higgins St., Kimberley, B.C.	Oct. 2-5	Mag and geochemical survey	27.34	109.36
B. Howie	Box 322, Watson Lake, Y.T.	Oct. 2-6	Mag and geochemical survey	19.54	97.70
					$2,333.85

* Includes holiday pay, Unemployment Insurance and Canada Pension

CERTIFIED CORRECT

Accountant

L 128+00 W
L 124+00 W
L 120+00 W
L 116+00 W
L 112+00 W
L 108+00 W
L 104+00 W
L 100+00 W
L 96+00 W
L 92+00 W
L 88+00 W
L 84+00 W
L 80+00 W
L 76+00 W

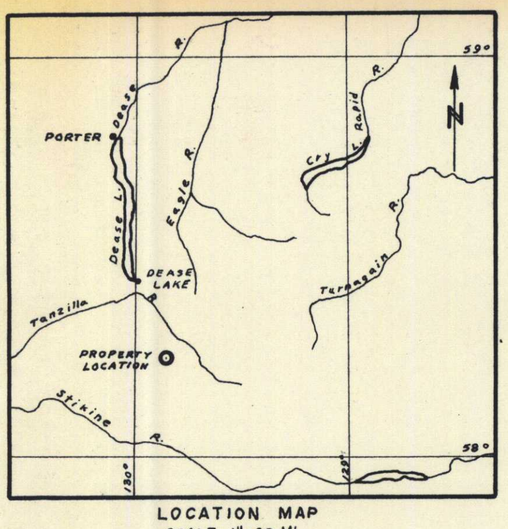
B.L. 64+00 N
Base Line 34+00 N
Base Line 14+00 N
Base Line 0+00
Base Line 14+00 S
Base Line 34+00 S

MOSS 64
MOSS 63
MOSS 65
MOSS 66
MOSS 61
MOSS 62
MOSS 60
MOSS 59
MOSS 58
MOSS 57
MOSS 55
MOSS 56
MOSS 53
MOSS 54
MOSS 68
MOSS 67
MOSS 70
MOSS 69
MOSS 71

AST.

Flooded Area

L 88+00 W
L 84+00 W
L 80+00 W
L 76+00 W
L 72+00 W
L 68+00 W



LOCATION MAP
SCALE 1"=20 MI.

LEGEND

1. GRANODIORITE INTRUSIVE
2. INTERMEDIATE VOLCANIC
3. BASIC VOLCANIC
   (a) PYROXENE BASALT
4. ACID VOLCANIC

NOTE:

To accompany report by D.W. Asbury, P.Eng.
Of Geology, Magnetometer and Geochemical work on
The Moss Group, Dease Lake area, Liard M.D.
Dated October 7, 1967

FIG. 1

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LYTTON MINERALS LTD.

MOSS PROPERTY, CLAIMS 53-71

GEOLOGY SURVEY

SCALE 1"= 400'

OCTOBER 1967

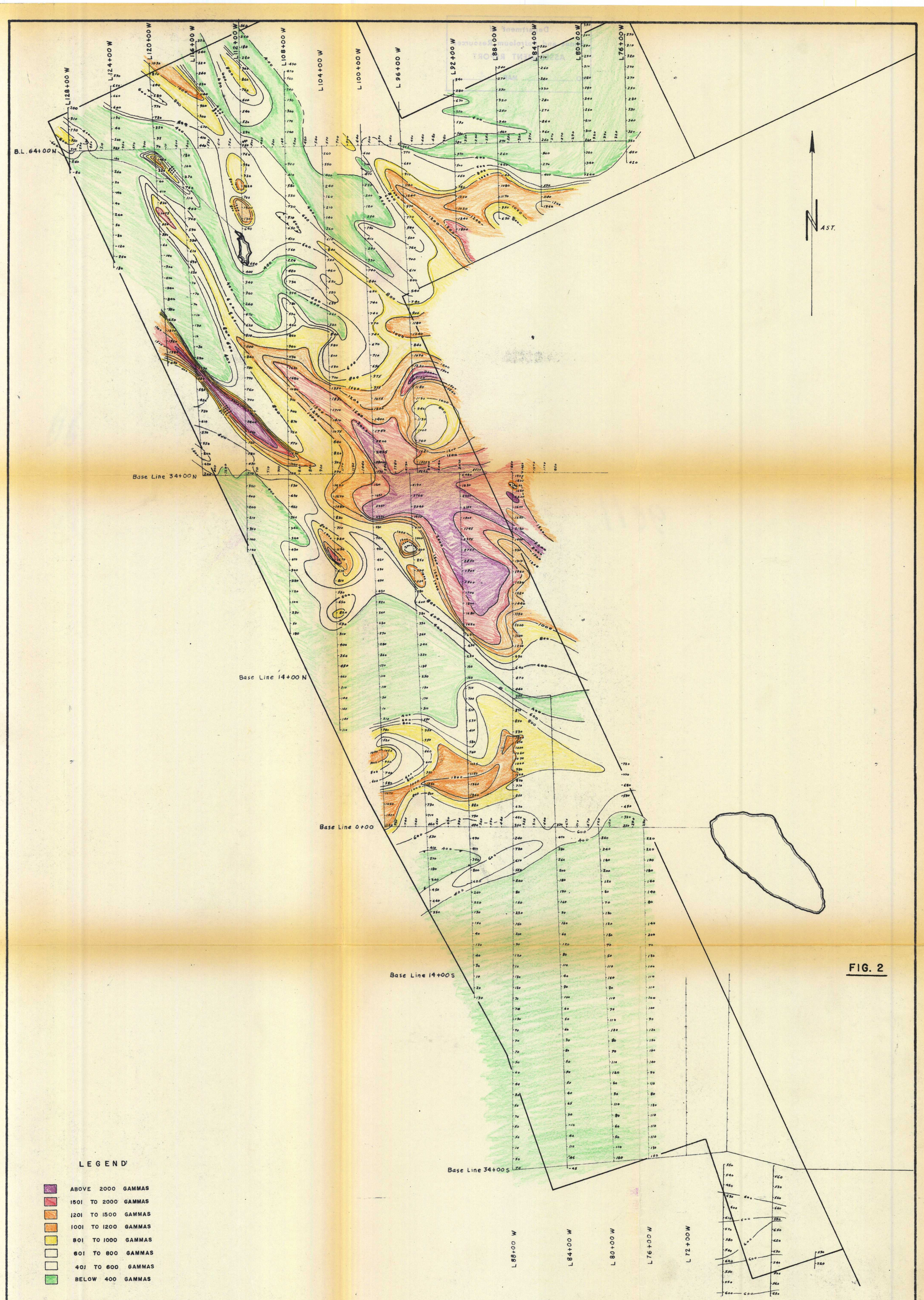

FIG. 2

LEGEND

	ABOVE 2000 GAMMAS
	1501 TO 2000 GAMMAS
	1201 TO 1500 GAMMAS
	1001 TO 1200 GAMMAS
	801 TO 1000 GAMMAS
	601 TO 800 GAMMAS
	401 TO 600 GAMMAS
	BELOW 400 GAMMAS

NOTE:

To accompany report by D.W. Asbury, P.Eng.
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The Moss Group, Dease Lake area, Liard M.D.
Dated October 7, 1967.
Magnetometer Used: Sharpe MF-1

D.W. Asbury

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LYTTON MINERALS LTD.

MOSS PROPERTY, CLAIMS 53-71

MAGNETOMETER SURVEY

SCALE 1" = 400'

OCTOBER 1967

L128+00 W
L124+00 W
L120+00 W
L116+00 W
L112+00 W
L108+00 W
L104+00 W
L100+00 W
L 96+00 W
L92+00 W
L88+00 W
L84+00 W
L80+00 W
L76+00 W

B.L. 64+00N

Base Line 34+00N

Base Line 14+00 N

Base Line 0+00

Base Line 14+00S

Base Line 34+00S

L88+00 W
L84+00 W
L80+00 W
L76+00 W
L72+00 W

Flooded Area

AST.

FIG. 3

LEGEND

3/5 T.H.M. IN MLs. 0.001% DITHIZONE SOLUTION (BLOOM TEST) CONTOURED FOR TOTAL HEAVY METALS

UNDER 3 MLs.

3 AND 4 MLs.

5 MLs. AND OVER

NOTE:

To accompany report by D.W. Asbury, P.Eng. Of Geology, Magnetometer and Geochemical work on The Moss Group, Dease Lake area, Liard M.D. Dated October 7, 1967.

LYTTON MINERALS LTD.

MOSS PROPERTY, CLAIMS 53-71

GEOCHEMICAL SOIL SURVEY

SCALE 1" = 400'

OCTOBER 1967

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