

GEOLOGICAL REPORT

LAD MINERAL CLAIM GROUP
(Lad 3-12, 19-34, 45-62)

Mayo Mining District
Yukon Territory

N.T.S. 105-K-16
Longitude : 132°15'W.
Latitude : 62°51'N.

Work done during period
July 23 - Sept. 13, 1968

By:

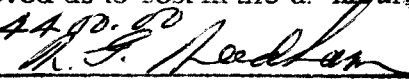
THOMAS J. ADAMSON
ATLAS EXPLORATIONS LIMITED

October 15, 1968


This report has been examined by
the Geological Evaluation Unit.
Approved as to technical worth by:


RESIDENT GEOLOGIST

Approved as to cost in the amount
of: \$ 4400.00


RESIDENT MINING ENGINEER

Accepted as representation work
under Section 53(4) Yukon Quartz
Mining Act.


COMMISSIONER OF YUKON

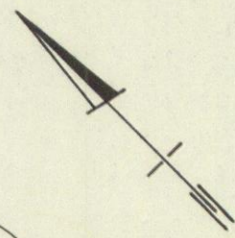
LIST OF CLAIMS

<u>Claim Numbers</u>	<u>Grant Numbers</u>	<u>Date Recorded</u>
Lad 3-8	Y14068-Y14073	Oct. 11, 1967
Lad 9-12	Y14074-Y14077	Oct. 11, 1967
Lad 19-24	Y14136-Y14141	Nov. 3, 1967
Lad 25-32	Y14078-Y14085	Oct. 11, 1967
Lad 33-34	Y14086-Y14087	Oct. 11, 1967
Lad 45-48	Y14218-Y14221	Nov. 6, 1967
Lad 49-54	Y14142-Y14147	Nov. 3, 1967
Lad 55-62	Y14148-Y14155	Nov. 3, 1967

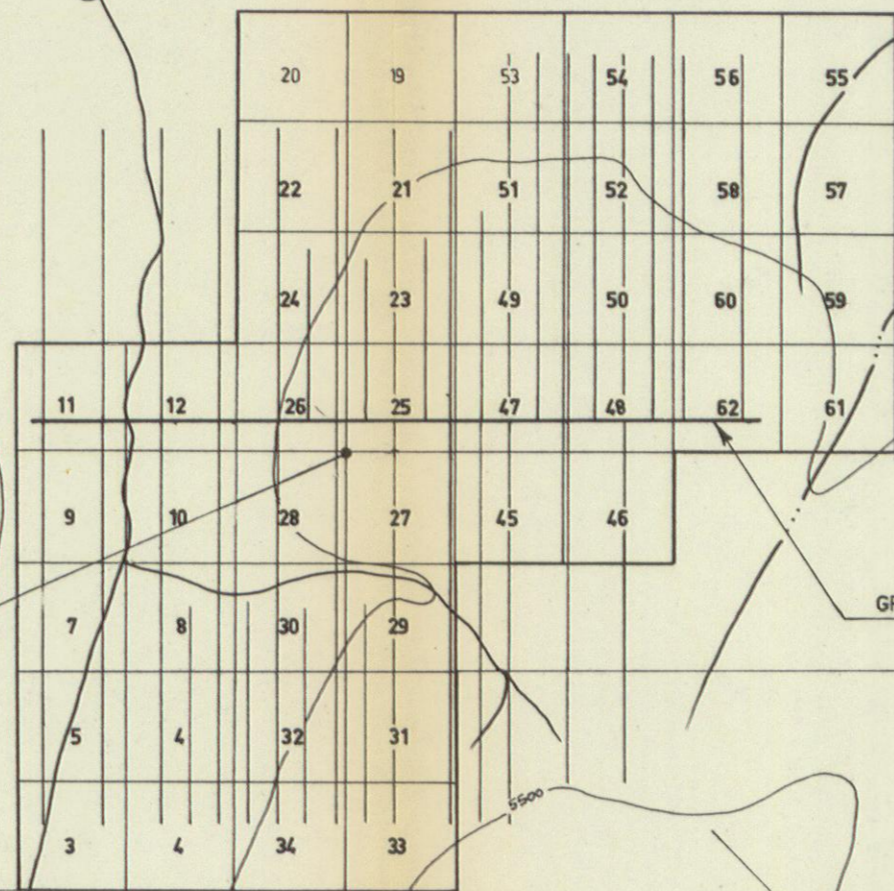
105-K-16

132° 14'

62° 56'



LAD MINERAL CLAIMS



MOUNT SELOUS 7136' ELEVATION 9 MILE

1967 STAKED CLAIMS

GRID

ATLAS EXPLORATIONS LIMITED

ROSS RIVER (Y.T.)

KEY MAP OF LAD MINERAL CLAIMS AND GRID

scale 1" = 1/2 mi

62° 56'

132° 14'

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LIST OF CLAIMS

KEY MAP

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Appendix V	Geology Map - Grid (1":400')

ATLAS EXPLORATIONS LIMITED

(N. P. L.)

330 MARINE BUILDING
355 BURRARD STREET
VANCOUVER 1, B. C.

GEOLOGICAL REPORT LAD MINERAL CLAIM GROUP (Lad 3-12, 19-34, 45-62)

INTRODUCTION

The Lad Group was staked in September and October, 1967 to cover the area of three Ag, Pb, Zn, Cu showings, a number of sulfide float occurrences, and high lead results from reconnaissance soil and gossan sampling.

To September 13th, 1968, the work done on the Group consisted of cutting a grid in the area of interest over which geological mapping and prospecting, soil and silt sampling, magnetic and electromagnetic surveying were carried out.

An additional 164 claims were staked in the immediate vicinity during the 1968 field season.

LOCATION AND ACCESS

The Lad Group is located on the SE slope of Mt. Selous, in the north-central portion of claim sheet 105-K-16. Ross River, Y.T., the nearest settlement, is about 65 miles south of the claim group.

Access to the property can be made by float-equipped aircraft to "Van Lake", 8 miles east of the claims. Helicopter support is required from this lake to the property. Several helipads have been cut out on the property.

A camp was established on Clearwater Creek in the north-western portion of the claim group.

REGIONAL GEOLOGIC SETTING

The Lad Group lies northeast of a major northwest-southeast trending lineament along the South Macmillan River. This lineament resembles the Tintina Fault to the southwest. The area is underlain by northwesterly trending open to moderately tightly folded rocks.

A northwest-southeast trending intrusive belt consisting of two large granodiorite to quartz dioritic plutons (Mt. Armstrong and Mt. Selous) and numerous smaller marginal plutons is located just northeast and parallel to the South Macmillan lineament. The contact of the Mt. Selous pluton is about 2 miles west of the Lad Group.

Two major stratigraphic levels occur in the area: Proterozoic and Ordovician-Devonian. The Proterozoic rocks, mainly quartzite, phyllites and limestones occur in a Proterozoic arch trending along the Mt. Armstrong - Mt. Selous axis. The Ordovician-Devonian section is composed mainly of low grade, usually graphitic, metasediments. The most abundant rock types are graphitic cherts, shales and slates, and chert pebble conglomerate.

TABLE OF GEOLOGIC FORMATIONS

Cretaceous	1 l	Granitic Intrusives
Ordovician-Devonian	3 f	Grey bedded chert.
	3 d	Chert, black slate pebble conglomerate, poorly cemented, rusty weathering.
	3 a	Graphitic shales, cherts, greywackes.
Proterozoic	1 c	Phyllite, grey to buff, very fissile, not rusty.
	1 b	Limestone, grey, massive bedding, fine to medium grained, occurs in units of few feet to a few hundred feet in thickness.
	1 a	Quartzite, micaceous quartzite, quartz-sericite schist.

GEOLOGY OF CLAIM GROUP AREA

The geology of the claim group area was mapped by T. Adamson on a scale of 1":400 ft.

Mapping was done in reference to a grid that was cut over the area of interest. The central base line of this grid runs 135° and is 11,200 ft. long. Original line spacing on this grid was 800 ft. but this was reduced to 400 ft. or 200 ft. in areas where more detailed work was necessary. Stations at 100 ft. intervals were marked on all lines. A total of 208,000 ft. of line was cut.

Outcrop is very limited in the grid area, except in the creek beds. This area is underlain mainly by Proterozoic rocks. A number of wedges of Ordovician-Devonian rocks occur in the eastern and southeastern grid area. The sediments strike about 120° to 150°, and dip from 40° to 90°, generally to the northeast, but locally also to the southwest.

A small pluton (dyke?) of granitic orthoclase porphyry outcrops on the grid at about L80E, 28N. A narrow dyke (10') of quartz-orthoclase porphyry outcrops in Hugo Creek at 33E, 22S.

A number of sulfide mineral showings have been found in the grid area. The mineralization occurs in vein fracture zones and shear zone impregnations.

<u>Showing</u>	<u>Grid Location</u>	<u>Description</u>
A	38E, 23S	In Hugo Creek. Galena, sphalerite, pyrite, and quartz as fracture fillings in a shear breccia. The shear (155/20S) cuts across quartz-sericite schist (130/20S). The width of the mineralized zone is less than 1 ft. and is exposed for a strike length of 4 ft. in the creek bed.

<u>Showing</u>	<u>Grid Location</u>	<u>Description</u>
B	51E, 24S	In Hugo Creek. Disseminated chalcop- pyrite, pyrrhotite, galena, sphalerite and pyrite in a shear zone. The shear zone (015/20E) is about 4-6 ft. wide but is only mineralized for about 2 ft. along the footwall. The zone is exposed for a length of about 30 ft. on both creek beds. A grab sample of this showing ran 49.68 oz/t. Ag, 15.3% Pb, 3.1% Zn, 4.40% Cu.
C	56+50E 25+50S	In Hugo Creek. A small quartz-galena- chalcopyrite vein (width 4-8", mineral- ization not continuous). The vein (150/70S) cuts across quartzite (135/30S).
D	57E, 26S	In Hugo Creek. A shear zone (030/90, width about 3 ft.) cutting quartzite and quartz-sericite schist, containing a number of small irregular lenses and pods of pyrite and very minor pyrrhotite and arsenopyrite.
E	11E, 4+50N	In Clearwater Creek. Two narrow (3" and 5") quartz-pyrite-very minor chalcopyrite veins in conformable shears in quartz-sericite schist.

Of the above showings, only showing B would seem to hold any economic potential.

GEOCHEMISTRY

Soil samples were taken at 100 ft. intervals on the cut grid. The geochemical results from these soils have outlined and detailed several very interesting zones of anomalous lead and copper-zinc values. The geochemistry was successful in detecting the known showings, making the geochemical anomalies in the overburden covered areas attractive targets for further work.


CONCLUSIONS AND RECOMMENDATIONS

Although no mineral deposits of economic size have been found to date, we are dealing with a structurally and lithologically favourable, well mineralized district.

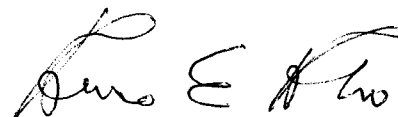
Numerous economically significant geological and geochemical targets have been defined in claims surrounding those dealt with in this report.

A program of bulldozer trenching of geochemical anomalies and follow-up diamond drilling is planned for next season.

Respectfully submitted,


T. J. Adamson,
Geologist

OCT. 16, 1968



SUMMARY OF COSTS
GEOLOGICAL SURVEY - LAD MINERAL CLAIM GROUP
(Lad 3-12, 19-34, 45-62)

GEOLOGY AND PROSPECTING

1.	(a)	Geologists	:	T. Adamson, T. Coates		
	(b)	Prospector	:	H. Brodell		
	(c)	Student Assistants	:	M. Simpson, T. Brock		
	(d)	Cook	:	C. Marcoux		
2.	(a)	Wages:				
		39 man days @\$23.00, daily wage of T. Adamson			897.00	
		12 man days @\$17.00, daily wage of T. Brock			204.00	
		6 man days @\$20.00, daily wage of H. Brodell			120.00	
		4 man days @\$18.00, daily wage of M. Simpson			72.00	
		2 man days @\$30.00, daily wage of T. Coates			60.00	
		12 man days @\$20.00, daily wage of C. Marcoux			<u>240.00</u>	\$1,593.00
	(b)	Helicopter Support:				
		11.4 hrs. @\$127.00/hr.			1,448.00	
		Aviation gasoline, 17 gal/hr. @\$2.00/gal.			<u>388.00</u>	\$1,836.00
	(c)	Fixed-Wing Support				\$ 181.00
	(d)	Subsistence Cost:				\$ 600.00
		75 man days @\$8.00/man day				
	(e)	Supplies and Misc. Equipment				\$ 50.00
	(f)	Travel from Vancouver (Travel from Ross River included in fixed-wing support)				\$ 100.00
		\$20.00/man x 5 men				
	(g)	Supervision Cost:				\$ 90.00
		75 man days @\$1.20/man day				

(Continued)

(h) Interpretation & Report Presentation:
Drafting:

2 man days @\$19.00, daily
wage of P. Vlasveld,
draftsman 38.00

Interpreation & Report writing:

1 man day @\$23.00, daily
wage of T. Adamson 23.00

Subsistence:

3 man days @\$8.00/man day 24.00

Supervision:

3 man days @\$1.20/man day 3.60

\$ 89.00

(i) Overhead - 15% of total

15% of \$4,539.60

681.00

TOTAL COST OF LAD GROUP (Lad 3-12, 19-34, 45-62)
GEOLOGICAL SURVEY

\$5,220.00


ATLAS EXPLORATIONS LIMITED

(N. P. L.)

330 MARINE BUILDING
355 BARRARD STREET
VANCOUVER 1, B.C.


AFFIDAVIT SUPPORTING SUMMARY OF COSTS

I, Thomas J. Adamson, Geologist, Atlas Explorations Limited, of Vancouver, British Columbia, do hereby state that, to the best of my knowledge and belief, the statement of costs presented in this report, "Geological Report - Lad Mineral Claim Group" (Appendix I) is both correct and true.



Thomas J. Adamson
Oct. 18, 1968

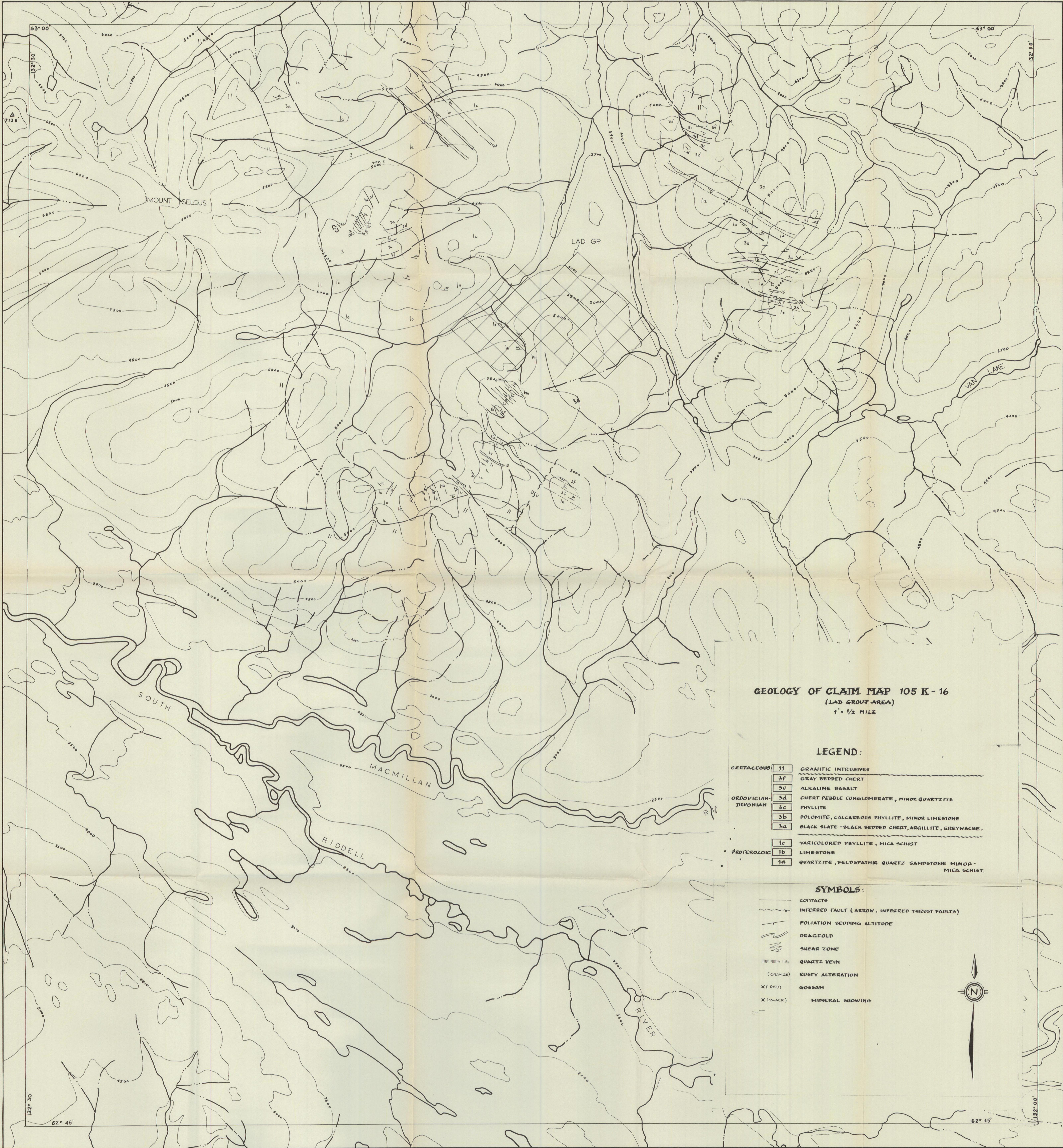
Date



Commissioner for Oaths in
and for the Yukon Territory

LIST OF PERSONNEL
LAD GROUP GEOLOGICAL SURVEY

T. Adamson	Geologist-Party Chief	Vancouver, B.C.
T. Coates	Geologist-Project Chief	Vancouver, B.C.
C. Marcoux	Cook	Quebec, P.Q.
T. Brock	Student Assistant	Vancouver, B.C.
M. Simpson	Student Assistant	Vancouver, B.C.
H. Brodell	Prospector	Watson Lake, Y.T.



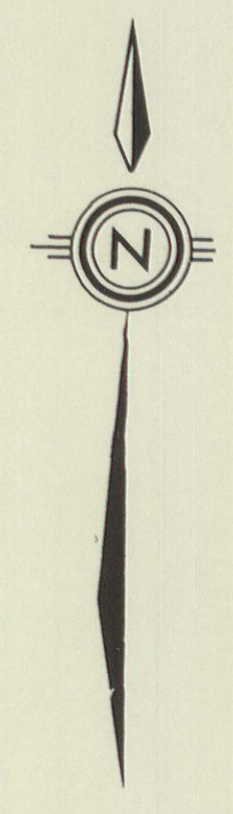
GEOLOGY OF CLAIM MAP 105 K-16
 (LAD GROUP AREA)
 1 1/2 MILE

LEGEND:

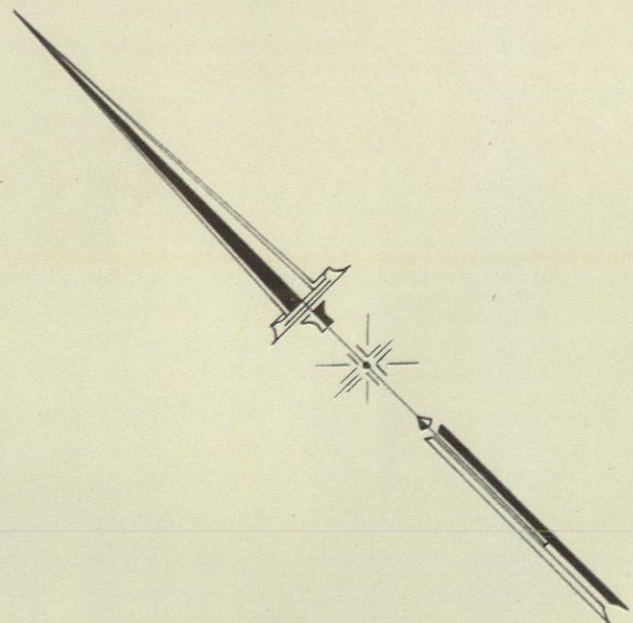
CRETACEOUS	1f	GRANITIC INTRUSIVES
	3f	GRAY BEDDED CHERT
	3e	ALKALINE BASALT
ORDOVICIAN-DEVONIAN	3d	CHERT PEBBLE CONGLOMERATE, MINOR QUARTZITE
	3c	PHYLLITE
	3b	DOLOMITE, CALCAREOUS PHYLLITE, MINOR LIMESTONE
	3a	BLACK SLATE - BLACK BEDDED CHERT, ARGILLITE, GREYWACHE.
PROTEROZOIC	1c	VARICOLORED PHYLLITE, MICA SCHIST
	1b	LIMESTONE
	1a	QUARTZITE, FELDSPATHIC QUARTZ SANDSTONE MINOR - MICA SCHIST.

SYMBOLS:

---	CONTACTS
--->---	INFERRED FAULT (ARROW, INFERRED THRUST FAULTS)
~	FOLIATION BEDDING ALTITUDE
~	DRAGFOLD
~	SHEAR ZONE
	QUARTZ VEIN
(ORANGE)	RUSTY ALTERATION
X (RED)	GOSSAN
X (BLACK)	MINERAL SHOWING



16W 8W 0 8E 16E 20E 24E 28E 32E 36E 40E 44E 48E 52E 56E 60E 64E 68E 72E 76E 80E 84E 88E 96E



50 N
40 N
30 N
20 N
10 N
BASE LINE

LEGEND

- | | | |
|-------------|----|---|
| CRETACEOUS | 1f | GRANITIC INTRUSIVES |
| | 3f | GREY BEDDED CHERT |
| ORDOVICIAN | 3d | CHERT-BLACK SLATE PEBBLE CONGLOMERATE |
| DEVONIAN | 3a | GRAPHITIC SHALES, CHERT, GREY WACHE |
| | 1c | PHYLLITE, GREY TO BUFF |
| PROTEROZOIC | 1b | LIMESTONE |
| | 1a | QUARTZITE, MICACEOUS QUARTZITE, QUARTZ-SERICITE SCHIST. |

SYMBOLS

- CONTACTS
- - - - - OUTCROP LIMIT
- ↗ BEDDING ATTITUDE
- ← LINEATION
- ⊕ ANTICLINAL FOLD
- ~~~~~ FAULT OR SHEAR

ATLAS EXPLORATIONS LIMITED
ROSS RIVER (Y.T.)
HESS REGION
LAD MINERAL CLAIM GROUP
GRID GEOLOGY
(OUTCROP MAP)

GEOLOGY BY: T. ADAMSON
DRAWN BY: P.J.F. VLAASVELD
DATE: OCTOBER 1978