



Preliminary Geological and Geochemical  
Assessment of the Top Claim  
Group

Smart River Area  
Watson Lake Recording District  
Yukon Territory  
60 02'N 131 40'W

13103

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Climax Molybdenum Corporation of B.C. Ltd.  
October 1, 1977



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Top Claim Group  
Watson Lake Recording District  
Yukon Territory

INTRODUCTION

The Top claim group was staked in October of 1976 to cover possible northern extensions of the molybdenum-scheelite skarn zone discovered on the Log claims.

This program was undertaken to evaluate the potential of the claim group and to use as a guide for the next stage of exploration.

SUMMARY AND CONCLUSION

The property is composed of 54 adjoining claims covering approximately 2300 acres. It is located approximately 2½ miles east of the Smart River and 2½ miles north of the B.C. - Yukon border.

Present access to the property is via helicopter from Teslin on the Alaska highway; a distance of some 35 miles. During extremely dry weather, access is possible via a summer tote road which takes off from M.P. 759 of the Alaska highway.

The claim group covers a granitic body which has intruded sediments composed primarily of black shales. Narrow, poorly developed skarn fingers occur intermittently over a 1200 foot wide area on the east side of the intrusive. Although no mineralization of economic interest was located, soil samples and pan concentrate samples indicate that anomolous values in Pb, Zn, and W occur in this area. This may be indicative of a more massive mineralized skarn zone at depth along this contact.

RECOMMENDATIONS

It is recommended that a more detailed geological mapping and geochemical sampling program be conducted on the TOP 21 - 40 mining claims. The results of this program and information gained from continuing work on the LOG claims to the south will indicate if further work, including drilling, is warranted.

ESTIMATED COSTSPhase 1

a. Geologist, overall supervision sampling and mapping 3 weeks @ \$150/day		\$3,000.00
b. Line cutting 24 line miles @ \$150/mile		3,600.00
c. Assaying		3,000.00
d. Transportation		
scheduled aircraft	\$1000	
helicopter	6000	
truck	600	
	<u>\$7,600</u>	7,600.00
e. Field equipment		1,000.00
f. Accommodation and food 75 man days @ \$15/man day		1,125.00
		<hr/>
		\$19,325.00
Overhead and contingencies @20%		3,865.00
		<hr/>
	TOTAL	\$23,190.00

Phase 11 ( Contingent on results of phase 1 )

a. 2000 feet of BQW drilling @ \$30/ foot TOTAL		\$60,000.00
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GEOGRAPHYLocation

The property is located in a low range of mountains approximately 2½ miles east of the Smart River and 2½ miles north of the B.C. - Yukon border.

Co-ordinates of the property are 60 02'N and 131 40' W

Access

Most reliable access to the property is via helicopter from Teslin on the Alaska highway; a distance of some 35 miles. During periods of extended dry weather it is possible to drive to the property via a 10 mile summer tote road from M.P. 759 of the Alaska highway.

Terrain and Vegetation

The elevation of the TOP claim group varies from 3000 feet to 5000 feet. Timber line is at approximately the 4000 foot elevation. Vegetation varies from heavy boreal cover ( spruce and balsam ) to open alpine.

Water

Several small streams cross the property. There is sufficient water for drilling purposes.

CLAIMS

The property is composed of a block of 54 adjoining claims which cover an area of approximately 2300 acres. The claims were examined and found to be staked according to Yukon regulations. The property is wholly owned by Climax Molybdenum Corporation of B. C. Ltd.

<u>Claim Name</u>	<u>Tag Number</u>	<u>Expiry Date</u>
TOP 1 - 54	YA11472-YA11525 inci.	Oct 19, 1977

GEOLOGY

The TOP claims cover a granitic stock which has intruded black shales and limey skarns. They were mapped using pace and compass techniques. Aerial photos and claim location lines were used for control. See geology map enclosed in pocket.

Sampling

Soil samples were taken from the 'B' horizon using a mattock to remove the humus layer. Samples were collected along two traverses at 300 foot intervals. Seven (7) pan concentrate samples were taken and analyzed for W. For these samples a medium sized gold pan was filled with stream sediments and panned down to yield a concentrate. The concentrate was then dried and bagged for assaying.

All Pb - Zn assays were run by Atomic absorption using the -80 mesh portion. All W assays were colorimetric using the -80 mesh fraction of the soils and the -100 mesh fraction of the pan concentrates.

Samples of each rock type were collected during the mapping prospecting program and examined each night with an ultra violet lamp. Twenty three (23) samples were collected from the skarn zones for closer examination. Results were as follows:

Sample No.	Description	Remarks
1	skarn	barren
2	skarn	2 specks scheelite
3	skarn	1 speck scheelite
4	skarn	barren, pyrite
5	skarn	3 specks scheelite
6	skarn	1 speck scheelite
7	skarn	barren
8	skarn	barren
9	skarn	4 specks scheelite minor pyrite
10	black shale	1 speck scheelite
11	black shale	barren
12	skarn	barren, pyrite
13	skarn	2 specks scheelite
14	skarn	5 specks scheelite
15	skarn	barren, pyrite
16	skarn	barren, pyrite
17	black shale	barren
18	skarn	2 specks scheelite
19	skarn	barren
20	black shale	barren
21	granite	pyrite
22	granite	barren
23	black shale	barren

STATEMENT

A preliminary geological and geochemical assessment of the TOP 1 -54 M.C.'s was carried out between August 15th and September 20th, 1977. Work was supervised by the writer. Specific details of the individuals that worked on the property are as follows:

J.E. Wallis P. Eng.  
Box 59 Atlin, B.C.      Aug 15 - sept 20

T. Voorhies  
Atlin, B. C.      Aug 21 - 28

R. Coutes  
Atlin, B. C.      Aug 21 - 28

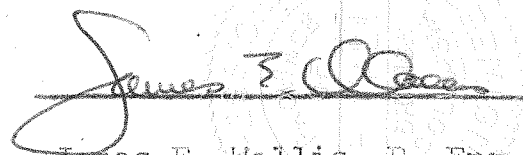
Wm. Wallis  
Atlin, B. C.      Aug 21 - 28

Phil Timpaney  
Atlin, B. C.      Aug. 21 - 28

ENGINEER'S CERTIFICATE

I, James E. Wallis, of Atlin, in the province of British Columbia, DO HEREBY CERTIFY:-

1. That I am a mining engineer employed by Climax Molybdenum Corporation of B.C. Ltd.
2. That I am a graduate of the Haileybury School of Mines 1958, the University of Alaska B. Sc. 1965 and Queen's University M. Sc. (Eng.) 1967.
3. That I have practised my profession as a mining engineer for the past 12 years.
4. That I have no interest in the property with which this report is concerned, nor do I expect to receive any such interest.

  
James E. Wallis, P. Eng.

Dated at the Village of Atlin, Province of British Columbia, this 1st day of October, 1977.



BONDAR-CLEGG &amp; COMPANY LTD.

Branch: 136B Industrial Rd.,  
Whitehorse, Yukon764 BELFAST ROAD, (MRI) OTTAWA ON  
PHONE: 237-3110

TELEX: C

**GEOCHEMICAL LAB REPORT**Extraction..... Pb, Zn - HCl-HNO<sub>3</sub>

From..... AMAX Minerals

Method..... A.A.

Date..... September 9

1 Fraction Used - 80 soils

Analyst.....

SAMPLE NO.	Pb* ppm	Zn ppm	SAMPLE NO.	Pb* ppm	Zn ppm
A 1	165	440	B 9	44	55
2	140	245	10	50	60
3	100	255	11	28	28
4	34	135	12	40	100
5	60	250	13	38	95
6	23	260	14	14	95
7	24	65	15	22	72
8	34	145	16	100	125
9	42	1650	17	110	120
10	18	82	18	12	60
11	30	270	19	16	65
12	30	240	20	12	40
13	30	185	21	14	50
14	18	70	22	5	42
15	22	200	23	12	68
16	28	175	24	6	58
A 17	18	180	25	8	35
18	36	290	26	14	25
19	115	390	27	14	7
20	28	230	28	10	8
21	16	165	A -	12	100
22	32	145	unmarked	16	38
A 23	20	125			
B 1	78	155			
2	40	80			W to follow
3	52	195			
4	50	82			
5	38	78			
6	30	82			
7	17	48			
B 8	34	55			



BONDAR-CLEGG &amp; COMPANY LTD.

764 BELFAST ROAD, (MRI) OTTAWA O  
PHONE: 237-3110

TELEX

**GEOCHEMICAL LAB REPORT**

Extraction.....W.....

From.....AMAX Mineral

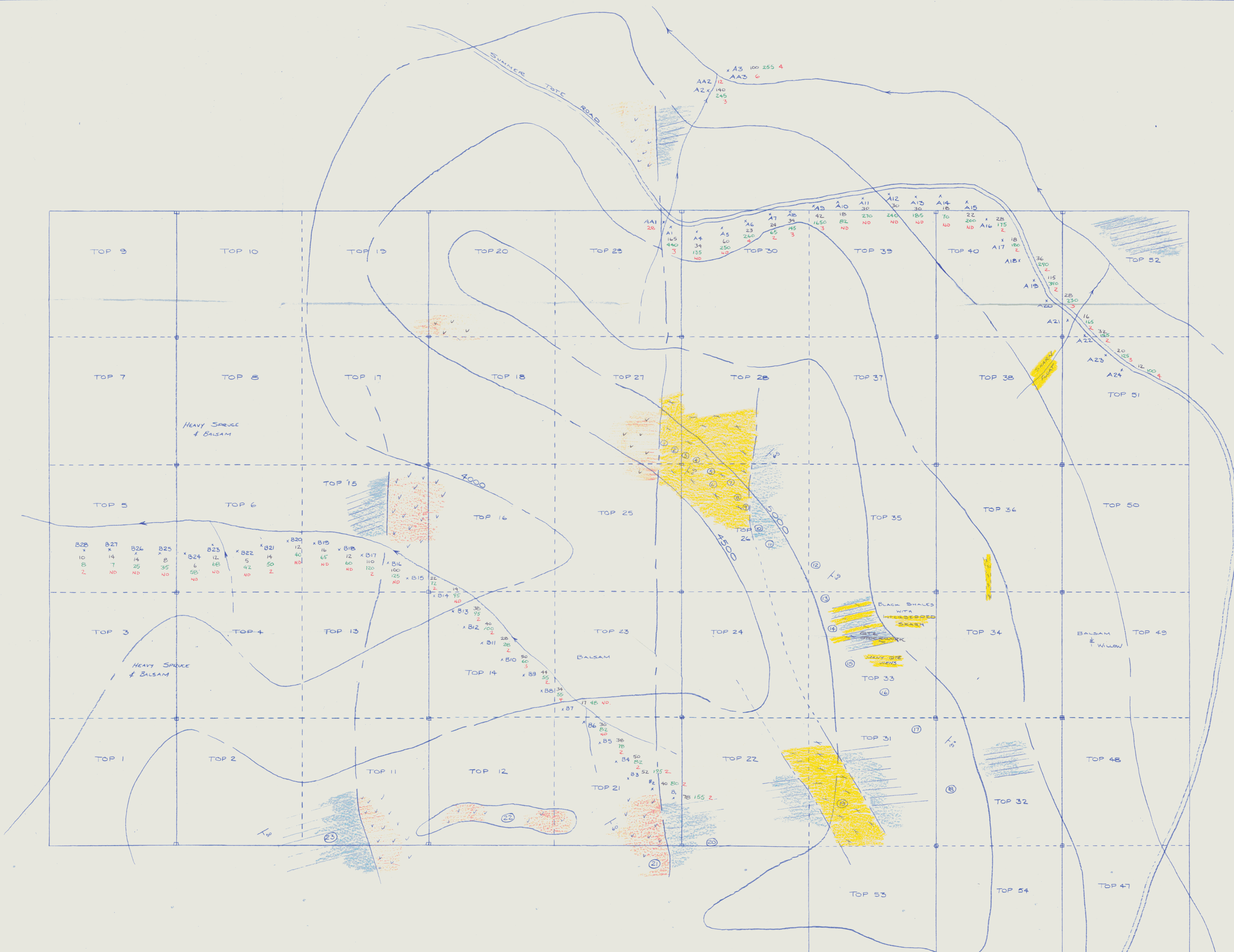
Method.....Colorimetric.....

Date.....September 19

Fraction Used.....80 soils, - 100 HMC.....

Analyst.....

SAMPLE NO.	W ppm	SAMPLE NO.	W ppm
A - 1	3	B - 8	4
2	3	9	2
3	4	10	3
4	ND	11	2
5	ND	12	2
6	4	13	2
7	2	14	ND
8	3	15	2
9	3	16	ND
10	ND	17	2
11	ND	18	ND
12	ND	19	ND
13	ND	20	ND
14	ND	21	2
15	ND	22	ND
16	2	23	ND
17	2	24	ND
18	2	25	ND
18	2	26	ND
20	3	27	ND
21	2	28	2
22	2	PCB 6	28
23	3	6.5	4
A - 24	4	22M	12
B - 1	2	22S	4
2	2	unmarked	4
3	2	AMAX AA1	28
4	2	AA2	12
5	2	AA3	6
6	ND		
7	ND		ND: No



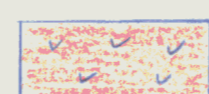
COMPOSITE PLAN  
of  
TOP 1-54 MC'S

60° 02' N 131° 40' W  
DORSEY LAKE SHEET  
105 B-4

SCALE: 1 IN = 500 FT

③ SPECIMEN

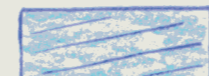
	PPM
Pb	140
Zn	220
W	3
Pb	140
Zn	185
W	2



GRANITE



SKARN



BLACK SHALE



MUSKEG

