702

ZUS MTN. CHRYSOTILE OCCURRENCE

LIARD M.D., B.C.

by

R.H. JANES

November 1965

702

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Scale: 1" - 100'

SUMMARY:

An ultrabasic body forms the north ridge of Zus Mtn., which forms part of the Stikine Mountain Ranges. Within this body occur several small isolated fibre occurrences. A standard exploration programme with attendent stripping indicates that they offer no possibility of providing an economic fibre deposit at present.

1. GENERAL STATEMENT

Field work was carried out in the Cassiar area from July 21st., to September 12th. It's purpose was the examination of two chrysotile properties held by William Longhurst of Cassiar. The property of chief interest was the Ben Claim Group on Zus Mtn., the other property, the Moon Group was of minor interest. A visit was also made to the operation of Cassiar Asbestos.

The Ben and Moon Groups were optioned and a standard exploration programme conducted on the Zus Mtn property. A company report * received subsequent to completing the option agreement showed that the Company had previously optioned this ground in 1953. It is probable that the property would not have been optioned if this report had been available earlier.

Effective assistance in the field was provided by M. McGinnis and J. Binnie. R. Pete and J. Dennis of Cassiar also assisted.

This report serves as a continuation to Koski's.

2. HISTORY, CLAIMS and WORK DONE

The resurgence of interest in the Zus Mtn. chrysotile occurrences is due to Morgan and Toms, prospectors employed by Rio Tinto Canadian Exploration Limited during 1963. At this time, Rio optioned the Moon Group from W. Longhurst and placed a party in the area. Rio terminated the option and the claims staked by Morgan and Toms on Zus Mtn. passed to Longhurst. Nicolet Asbestos optioned the Zus Mtn. (Ben Group) and Moon properties in 1964. An access road, at a cost of $9,000.00 was put in prior to carrying out a magnetometer survey and limited stripping. Nicolet terminated the option in July, 1965. C.J.M. optioned the Ben Group (1-16) and Moon Group (2,3,5-12 and 15) on July 26th., 1965. Additional ground to the north and south was secured for protection, claims are Lori 1 - 5, Anna 1 - 10 and Jerry 1 - 10.

Geological and magnetometer surveys, with attendent trenching to bed rock, were conducted on six showings. Two of these showings had been stripped previously by Nicolet, the remaining showings were located during initial prospecting. Koski's report showed that most of these showings and several others had been previously located.

C.J.M. terminated the option in November, 1965. In keeping with the terms of this agreement, affidavits of work in respect of the current field work will be filed on selected claims (See Appendic I).

* Geological Report, White Mineral Claims, Blue River Mineral Claims and Serpentine Mineral Claims by J.S. Koski, 1953.

3. ZUS MTN. SHOWINGS

1. (noted by Koski)

Well exposed in bulldozer cut. A fibre zone approximately eight feet wide occurs in serpentinised dunite along the hanging wall of a shear. Fibre content is estimated to be between 5-10%, with fibre to 1-1/4 inches long. No count was made as the exposure is not solid bedrock. A further small fibre occurrence is present approximately 250 feet to the north. An anomaly is not clearly evident. 9/

2. (Koski's #12)

Forms part of a narrow (25 ft wide) fibre zone which traverses the summit ridge. The zone is well exposed by a series of cuts to the immediate east of the ridge. A series of parallel vertical lenticular veins comprise the zone. Judging by the float fibre in fine talus this zone extends west almost to the contact. Fibre content is probably not more than 2% across 20 feet, fibre to 1 inch long is present. The vein system is considered to be a tension structure. An anomaly is not clearly evident particularly as a "ridge effect" is developed in the vicinity of the showing.

3. (Koski's #10)

A small outcrop, hand stripped, shows two chrysotile veins. One vein is 1 inch wide and carries 1/2 inch fibre. A weak anomaly is present.

4. (not noted by Koski)

Situated on an E.NE facing hillside with a 30 deg slope. Free fibre is present, intermittently, in fine talus and soil for some 500 feet along contour. For approximately 200 feet of this distance free Fibre is continuous. Fibre to 3/4 inches long is present.

A bulldozer cut along contour exposed only minor amounts of fibre; confined essentially to shear zones.

The showing is situated approximately 300 feet east of the I.P.'s of claims Anna 1 to 4. Detailed field work did not extend to this showing.

5. (Koski's #8 and 9)

Free fibre in talus extends over a lateral distance of approximately 250 feet. A few wide (1-1/4 ins) but isolated veins are present. A bulldozer cut 450 feet long exposed very little fibre. An anomaly is not clearly evident.

6. (not noted by Koski)

Free fibre occurs in fine talus for approximately 200 feet across the summit ridge. A bulldozer cut exposed two fibre bearing shear zones. The larger one was 20 feet long and contained 5 to 10% fibre, much of this being between 1/4 and 1/2 inch in length. This zone may be part of a slide. Scattered outcrops above the showing carry no fibre veins. The "ridge effect" is strong here and no anomaly is evident.

7. (Koski's #13)

This is the best showing but also it is one of the most inaccessible. It is situated on the west side of the summit ridge. The slope is between 30 and 35 deg and proved too steep for stripping. Free fibre in talus is present intermittently for 700 feet along contour. A large rock fragment resting on outcrop shows fibre veins to 7/8 inch wide. Scattered outcrops within the "fluff" area" show no obvious veins though cleaning would probably disclose a few. Overall the zone is considered to be narrow (25 feet). The host serpentinised peridotite shows a greater degree of serpentinization than is present at the other showings. No well defined joint system is present. An anomaly is present.

8. (Koski's #6)

Showing briefly examined. Free fibre occurs for 200 feet across the summit ridge. Fibre to 1/2 inch long is present.

4. MAGNETOMETER SURVEY

This was carried out with an Askania Torsion Magnetometer. Readings on line were taken at 50 feet intervals. Several lines in the south section of grid were not completed due to instrument breakdown.

Correlation between anomalies and fibre occurrences is poor due to the paucity of veins and consequent lack of secondary magnetite. Showing # 7 is correlatable in part with a strong northerly trending anomaly. Several pronounced but local anomalies are correlatable with magnetite bands in the ultrabasic.

5. INTRUSIVE DYKES

Tabular lenticular and irregular bodies of "white rock" occur in the mapped area. They show considerable variation in form and composition. Generally the bodies are tabular, very narrow and dislocated. Serpentinite has developed in the host ultrabasic at the contact and occasionally follows joint planes into the "white rock". The following variations in composition of the "white rock" bodies occur.

5. Intrusive Dykes - Continued.

a. Fine grained white to light grey massive form. Bodies of this type are tabular and narrow. Thin sections from two areas indicated the following variations in mineral assemblage which occur in the passage from ultrabasic to "white rock":-

serpentinite - chlorite - contract - vesuvianite - clinopyroxene (diopside ?) and clinozoisite - clinopyroxene and completely altered laths of plagioclase.

This transition suggest calcium meta somatism of the "white rock parent" due to calcium release from the pyroxenes during serpentinisation.

b. As noted by Koski severalof the "White rock" bodies are diabasic in appearance and serpentinisation of the contacts is slight. Gabrielse notes instances where diabasic texture is retained due to grossularite replacement of plagioclase laths.

c. Dioritic form.

In the north wall of a dry ravine which leads into the Little Blue River a large block (18x18x10) of white rock is present. It is an altered diorite (75% felspar and 25% mafics), originally fine to medium grained, with diffuse grain boundaries. Serpentinite (and chlorite ?) has developed at the contacts and along joints and fractures. A two inch wide transition zone (area of calcium metasomatism?) borders the serpentinite.

d. Along the west contact "white rock" bodies appear to be gradational with the adjoining massive volcanics.

As Gabrielse suggests, these bodies are probably formed by calcium metasomatism of gabbroic and/or dioritic dykes and are rodingites. Their confinement to the ultrabasic suggests a contemporaneous origin.

6. COPPER OCCURRENCE

McGinnis found malachite stained talus near the top of the north east slope of a low hill immediately south east of L 61S, 36E. The area of malachite staining was very small and no copper mineralisation in place occurs. A body of "white rock" intrudes serpentinised peridotite at this location.

7. GENERAL COMMENTS

a. Serpentinite occurs along the west contact and along shears and joints within the serpentinised peridotite and dunite.

b. Fibre has developed locally along serpentinised shears and joints and less commonly in sporadic replacement veins. The occurrences are frequent, small in extent and on occassion show a probable overall structural control i.e. tension zones.

c. Fibre quality is semi-harsh to silky. In serpentinised areas it separates easily from the vein walls and with frost action becomes widely distributed about its source.

d. Showing # 7 provides the best possibility for "proving up" a fibre zone of interest. Its limited surface extent and inaccessible location deter further work at present.

e. Most of the showings are in areas of scattered barren outcrops. Talus is extensive and seldom shows fibre veins.

f. The plateau areas to the east of the summit ridge show little outcrop. Here, due to the process of solifluction, "frost circles" are prevalent. It is considered that underlying fibre zones if present, would provide appreciable amounts of free fibre to these "circles". No such fibre concentrations were observed.

g. Bodies of "white rock" occur near several of the showings. No clear relationship between these and fibre development is apparent. However, a pronounced difference in competency exists where the host is serpentinite.

8. CONCLUSIONS and RECOMMENDATIONS

Chrysotile veins have a wide but sporadic development in the serpentinised peridotite and dunite. The individual occurrences are small and isolated though veins up to 1 inch wide are present.

The deposit offers no reasonable possibility of providing an economic fibre body at present.

No further work on the property is recommended.

9. MOON SHOWING

This is situated 2-1/2 miles east of the BL across the Little Blue River in what may be the east limb of the Zus Mtn. ultrabasic body.

The showing was discovered and staked by Longhurst in July, 1961. Cassiar Asbestos optioned the property in February, 1962 and returned it in November, 1962. Rio Tinto Exploration Limited optioned the property in 1963. Janes visited the area for several hours on July 25th.

Four parallel bulldozer cuts, along contour, had been put in on Moon claims 9 to 12 by the previous optionors. These are described from top to bottom.

Cut # 1. - 200 to 300 feet below summit ridge, trends south - southeast, approximately 1/4 mile long, generally not to bedrock, up to 8 feet deep.

Shows blackish green to green serpentinite. Above the south end float serpentinite with fibre to 1/16 is present. Remaining cuts are situated below south end of cut.

Cut # 2. - Approximately 150 feet down hill and 60 feet below cut #1. 150 feet long, up to 8 feet deep and to bedrock locally.

Float serpentinite in cut carries 5/8 inch fibre. Float serpentinite above cut carries 1/4 inch fibre.

Cut # 3. - Approximately 75 feet down hill and 15 feet below cut # 2. 100 feet long, taken to bedrock locally.

Serpentinised peridotite exposed, float serpentinite and float fibre to 3/4 inch long is present.

Cut # 4 - Immediately below cut # 3.

Serpentinite and "white rock" exposed. Adjacent to contact serpentinite carries a 4 to 5 inch wide ribbon vein which contains silky fibre to 2-1/2 inches long. Vein follows slip plane, strike 50 degrees true and dips 40 degrees north.

Barren serpentinite outcrops for 200 feet down to valley floor which is approximately 150 feet below.

COMMENTS

Essentially, the single ribbon vein comprises the showing. Ben Able of Cassiar, who did the stripping, advised that a continuation of this vein was located in cuts 3 and 2.

The showing is of no economic interest.

10. RET CLAIM GROUP

Situated some 3 miles north east of the B_L . Comprised of 24 claims located by G. Fielding on 29th., May, 1963 and now owned by W.D. Grayson.

Fielding and, later, Grayson presented property to C.J.M. for examination. However as Fielding has a poor reputation, no examination was made.

Gavin Dirom of A.S. and R. examined property during August and advised that:-

a. serpentinised peridotite outcrops in a high north trending cirque.

b. a few fibre veins are present but have no possible economic value.

11. REFERENCES

White, Blue River and Serpentine M.C.'s, Little Blue River, J.S. Koski, 1953.

G.S.C. Memoir 319, McDame Map-Area.

N.T.S. 104 P Claim map 123 M-1.

R.H. Jones P. Eng.
Dec. 7th '65

APPENDIX I - CLAIMS

NAME	RECORD NO.		CERT. OF WORK TO
Optioned Claims:-			
Ben #1 - 10	14799-808		24th August, 1966
Ben #11-16	15365 - 70		2nd October, 1966
Moon #2,3,5 - 9	9216,-217,-219-223		15th July, 1966
Moon #10 - 12	10783-85		27th June, 1966
Moon #15	11352		18th October, 1966
Note: Ben and Moon Claims grouped separately.			
Staked by C.J.M.:-		Locator	Good Standing to
Anna 1 - 4	18415-18	R. Janes	4th August, 1966
Anna 5 - 10	18581-86	J. Binnie	10th August, 1966
Lori 1 - 5	18576-80	J. Binnie	10th August, 1966
Gerry 1 - 10	18727-36	J. Binnie	26th August, 1966

In keeping with option agreement, Cert's of Work for 1965 registered on following claims:-

NAME	CERT OF WORK TO

Exploration Department
1955 West 4th Avenue
Vancouver 9, B.C.

Phone: 731-7919

October 26, 1965

Dr. R. Thompson
Department of Geology
University of British Columbia
Vancouver 8, B.C.

Dear Bob:

Enclosed are four specimens (J 247 a,b,c and d) for petrological examination. A fifth (J 241) shows some of the relationships on a small scale.

The specimens are from "white rock" bodies enclosed in the ultra basic intrusive which forms the northern flank of Zus Mtn., McDame area. Gabrielse describes these rocks in Memoir 319, "McDame Map Area".

Field observations indicate that these "white rock" bodies may be "metasomatised inclusions" of the bordering siliceous volcanics and/or sediments rather than altered dykes as Gabrielse suggests. No doubt a petrological examination will throw further light on their origin. The "white rock" bodies also occur along the main contact and appear to be gradational with surrounding rhyolite.

Sincerely,

R.H. Janes
Exploration Department

RHJ:eb
Enc.

THE UNIVERSITY OF BRITISH COLUMBIA

VANCOUVER 8, CANADA

DEPARTMENT OF GEOLOGY

November 25, 1965

Mr. R.H. Janes,
Exploration Department,
Canadian Johns-Manville Co.,
1955 West 4th Avenue,
Vancouver 9, B.C.

Re: Zus Mtn. samples

Dear Dick:

This is my report on the specimens from Zus Mtn. which you submitted on Oct. 26th. I hope the thin section study will throw some light on the problem of origin.

Sample 241. The hand specimen is dark green, fine grained and soft; it contains a lens of hard, light coloured material. Thin section examination reveals that the dark green part is altered pyroxenite or peridotite in which nearly all of the original minerals have altered to fine grained chlorite with scattered magnetite dust; a few augite relics are present. The light coloured lens is composed almost entirely of fine grained vesuvianite in an interlocking mesh cut by a few veinlets of somewhat coarser grained vesuvianite; minor amounts of chlorite and magnetite are present also. Vesuvianite may occur in veins associated with basic and ultrabasic rocks due to calcium metasomatism.

Sample 247a. The hand specimen is very fine grained, light grey rock with a greenish serpentine-like band on one side. The light grey part contains small white needles and small dark spots. Thin section reveals it to be an altered volcanic or fine grained dike rock. Fresh pyroxene crystals and completely altered laths (isotropic), presumably once plagioclase, form small phenocrysts in a very fine grained altered groundmass. The green band is the same rock but much more highly altered; pyroxene has changed to chlorite, and the groundmass is mostly chlorite and siderite.

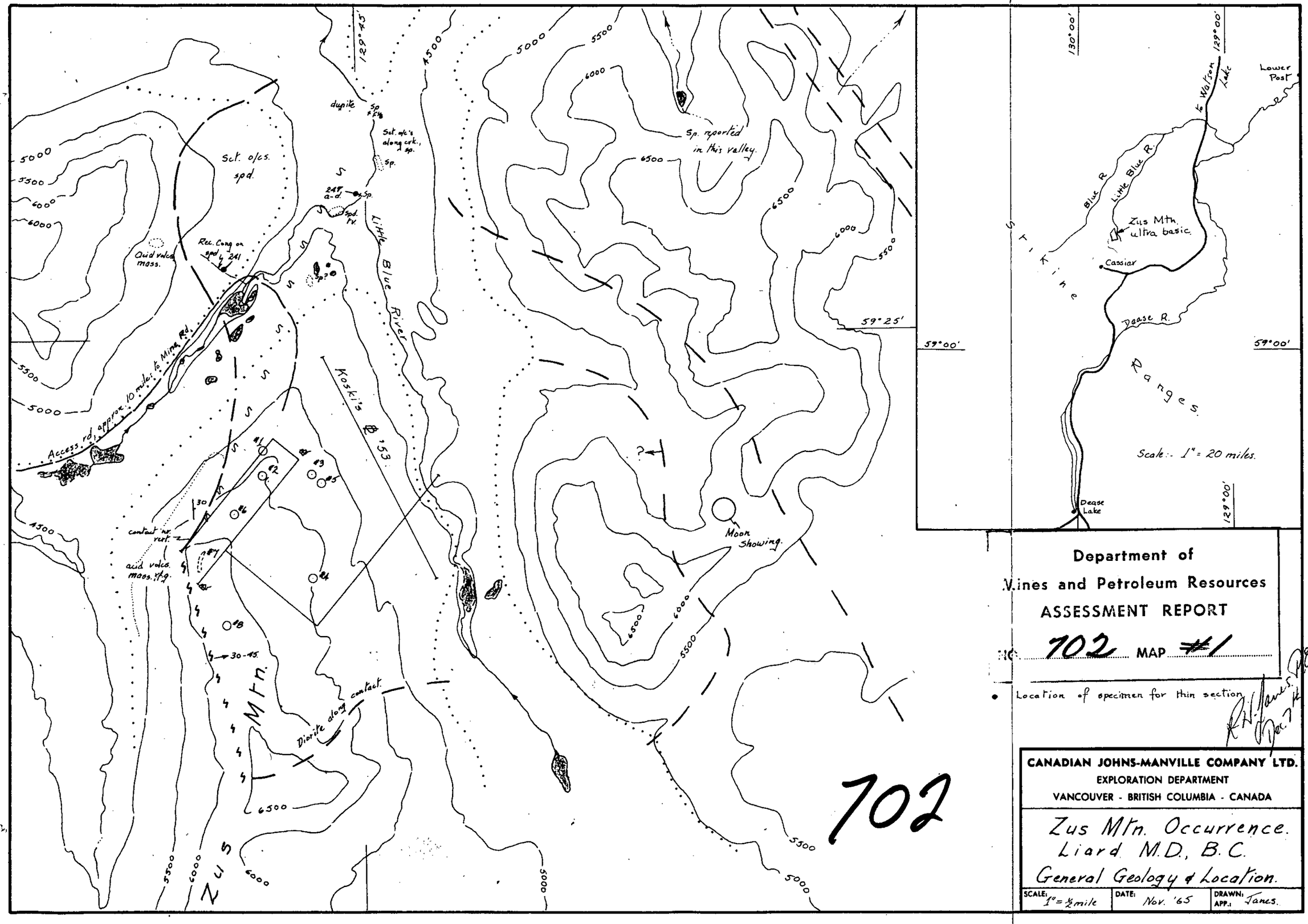
Sample 247c Essentially a mass of pure clinopyroxene. Thin section reveals a coarse mosaic of pyroxene with minor chloritic alteration and evidence of cataclasis. A small percentage of a high relief, finely divided isotropic mineral occurs throughout the section (possibly garnet).

Sample 247 b and d. These two rocks are essentially the same and are considered together. They are both composed essentially of diopside crystals that are separated by clinozoisite with lesser amounts of chlorite and an isotropic mineral of high relief that could be either garnet or isotropic vesuvianite. Siderite crystals are scattered throughout and appear to be porphyroblasts. These two rocks could be skarns, or they could be calcium metasomatised pyroxenites.

Yours sincerely

Bob Thompson

R. N. Thompson



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

702 MAP #1

• Location of specimen for thin section

R. H. James, Eng.
Nov. 24 '65

CANADIAN JOHNS-MANVILLE COMPANY LTD.
EXPLORATION DEPARTMENT
VANCOUVER - BRITISH COLUMBIA - CANADA

Zus Mtn. Occurrence.
Liard M.D., B.C.
General Geology & Location.

SCALE:	DATE:	DRAWN:
1" = ½ mile	Nov. '65	APP.: Janes.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 702 MAP #2

129° 45'

Little Blue R.

59° 25'

Area of Ret Grp.
21 22 23 24

Lori Grp.
1 2 3 4 5

Ben Grp.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 16

Anna Grp.
1 2 3 4 5 6 7 8 9 10

Gerry Grp.

Moon Grp.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

59° 25'

Claim post location.
Claim post approx. location.

129° 45'

Rpt. Jan. 7 '66
Dec. 7 '65

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CANADIAN JOHNS-MANVILLE COMPANY LTD.
EXPLORATION DEPARTMENT
VANCOUVER - BRITISH COLUMBIA - CANADA

Zus Mtn. Occurrence.
Liard M.D., B.C.
Claim Layout.

SCALE: 1" = ½ mile | DATE: Nov. '65 | DRAWN: APP.: Janes.

THE HUGHES-OWENS CO., LTD.

HALIFAX, MONTREAL, OTTAWA,
TORONTO, HAMILTON, WINNIPEG,
EDMONTON, CALGARY, VANCOUVER.

Talus

Limit of ext. valley debris

Talus

Shows regular bands usually 3 ft'd pyroxenite. Diss. blebs of mat. similarly aligned. 2 fine pyroxenite less prominent, cut dominant attitude at acute angle.

spd. spp. banded mx. pic.

anomalous area, ag. & float, spp. spd, mgf. bands, no F.

No o/c in anomalous area.

Plateau

knoll composed of sheltered pieces of silicious rocks

Area - frost circles.

Plateau Area - frost circles

I.P. Ben 2 | I.P. Ben 1
I.P. Ben 3 | I.P. Ben 4

I.P. Ben 11 | I.P. Ben 12

I.P. Ben 12 | I.P. Ben 13

F.P. Ben 3 | F.P. Ben 4
I.P. Ben 5 | I.P. Ben 6

#1 Showing

#2 Showing

#5 Showing

Talus barren

Talus barren

Summit ridge

Steep Talus few pieces show Fvns

gully

gully ~ 50' deep, o/b ~ 20' thick.

5' f. o/c down gully course for 2-300'.

Legend

① Fibre zone, 7-8' wide, 5-10% F, F to 1/16".
② Several Fvns: 4(1/16), 4(1/32) - 3% over 2'.
③ Several // Fvns, count taken along approx strike of zone: 1-4% over 28', F to 1".
④ Few Fvns, generally // & near vertical: 6(1/16), 5(1/8), 1(3/8). - 7.8% over 5'. F to 1/2".
⑤ Fvns in f spp: 4(1/16), 3(1/32), 2(3/16) over 2'
⑥ Fvns in f spp: 3(1/16), 4(1/8) over 3'.
⑦ 2 Fvns: 1" & 3/16", F to 3/16.
⑧ Top of small knoll stripped, vn. with F to 1/2.
⑨ Several Fvns: 2(1/4), 3(1/8), 1(1/16), 1(5/16) over 2 1/2'. Vn. to 3/16 wide.
⑩ Fvns present in small section of o/c: 2(1/16), 1(1/8), 1(3/16), 2(1/8), 1(1/2) over 1 1/2'. Main vn. 1/8" wide.

spp. serpentinized peridotite.
spd " dunite.
sep serpentinization of joints & fractures.
sp serpentinite.
wr. white rock
bulldozer trench
claim post/s.

f. float.
pic. picrolite
t.v. thread veins.
mr. minor.
scf. scattered.
nr. near
vn. vein.
general Fvn attitude.

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 702 MAP #3

R.H. James, P.Eng. Dec 7th '65

DATE:	REVISIONS:	BY:	APP.:

CANADIAN JOHNS-MANVILLE COMPANY LTD.
EXPLORATION DEPARTMENT
VANCOUVER - BRITISH COLUMBIA - CANADA

Zus Mtn. Occurrence. Liard M.D., B.C. Geology - North Sheet.

SCALE:	DATE:	DRAWN: APP.:
1" = 100'	Nov. '65	R. James.

702

MI

74+00S
72+00S
70+00S
66+00S
64+00S
55+00S
53+00S
51+00S
49+00S
45+00S
43+00S
41+00S
11+00W
10+00W
9+00W
8+00W
7+00W
6+00W
5+00W
4+00W
3+00W
2+00W
1+00W
1+00E
2+00E
3+00E
4+00E
5+00E
6+00E
7+00E
8+00E
9+00E
10+00E
Volcanics, siliceous, v.f.g.
Contact strongly shrd, spp. serpentinised for approx. 100'. Contact irreg., nr vertical.
shrd sp(breccia), rounded frags, sev. ins in dia.
Volcs. carbonatised
Volcs. - siliceous, v.f.g., mass grey. Show re X'n. & basification locally along contact. Few small leases of sp. in volcs. Wr. along contact, non diabasic.
wr. sp. at contact
mod. dip
Sp. developed along jts & fractures in spp. & wr., few sct. f.vs. wr. shows no diabasic texture, generally "broken" into blocks
Sct. o/c - spp. ssp.
Sct. o/c spp. ssp.
Fine talus, frost shattered, light rusty brown, originates from spd.
Very sct. o/c.
Spp. ssp mr spd. Occassional "white bands" in spp. Degree of serpentinisation increases towards contact.
Sct. o/c spp. ssp.
#7 Showing.
Area of free F. F ½. Sct. o/c
Area of free F
sct. o/c. spp.-ssp. no F vns.
small amounts of free F to summit ridge
no well defined joint system
free F ½ f. spp. F ½
occas. f.v. in talus frags
free F. x f spp. F½
Sct. o/cs spp.-ssp. above cut show no F vns.
#6 Showing.
free F
Sct. o/c spp. ssp(banded)
Sct. o/c in gully walls to ℄. Few sct. f.vs.
few F vns 1/16
few sct. Fvns
free F ½
Sct. o/c spp. ssp mr. spd.
very sct. o/c spp. ssp.
free F
6500
6400
6300
6200
6100
6000
5900
5800
5700
5600
5500
(11) Small o/c shows vn. stockwork: 2(1/16), 3(1/8), 1(1/4), 1(3/8), 1(1/2) over 3½'. 3 vns: 7/8, ½ & ¼ in spp.-ssp.
(12) Very mr. F occurrence: 6(1/16), 3(1/8), 2(3/16), 2(1/4) over 4½'.
Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 702 MAP #4
DATE: REVISIONS: BY: APP.:
CANADIAN JOHNS-MANVILLE COMPANY LTD.
EXPLORATION DEPARTMENT
VANCOUVER - BRITISH COLUMBIA - CANADA
Zus Mtn. Occurrence.
Liard M.D., B.C.
Geology - South Sheet.
SCALE: 1" = 100'
DATE: Nov. '65
DRAWN: APP.: R. Janes.
702
M2

40+00S | 39+00S | 38+00S | 37+00S | 36+00S | 35+00S | 34+00S | 33+00S | 32+00S | 31+00S | 30+00S | 29+00S | 28+00S | 27+00S | 26+00S | 25+00S | 24+00S | 22+00S | 20+00S

40+00S	39+00S	38+00S	37+00S	36+00S	35+00S	34+00S	33+00S	32+00S	31+00S	30+00S	29+00S	28+00S	27+00S	26+00S	25+00S	24+00S	22+00S	20+00S	
		.3339	.3357	.3726	.6475	.4836	.5040	.4034	.3974	.4180	.3990	.3993	.4180	.3852					15+00W
		.3836	.3512	.4238	.5798	.4455	.4479	.4505	.4525	.3892	.4180	.3877	.3744	.3712					
		.3531	.3349	.4578	.5265	.3804	.3985	.3255	.3460	.3512	.3558	.3824	.4036	.3722					14+00W
		.3350	.4029	.4530	.5323	.3638	.3249	.2922	.2843	.3447	.3326	.3285	.4217	.4494					
		.4055	.3971	.4656	.4861	.4696	.2825	.2610	.2524	.2572	.3657	.3613	.4212	.4263					13+00W
		.3785	.3931	.4699	.4067	.5564	.4549	.4615	.3252	.4159	.3316	.3548	.4138	.3971					
		.3818	.4414	.3681	.5326	.5732	.3983	.4031	.4527	.4247	.3582	.3681	.4159	.3816					12+00W
		.3394	.4334	.5682	.4664	.4880	.4591	.3542	.4096	.4084	.4316	.3558	.4086	.4193					
.3765	.4169	.3739	.4322	.4393	.5099	.4653	.4041	.3645	.3976	.3892	.4917	.4832	.2256	.3966				.7752	11+00W
.3871	.4910	.4539	.4520	.3788	.4780	.4060	.3747	.4471	.3562	.3928	.4030	.4451	.5369	.6938					
10+00W		.4009	.4856	.5672	.3604	.3930	.4894	.4037	.3562	.3804	.4860	.4439	.5085	.4111				.6768	10+00W
.6465	.4730																		
.5200	.4646	.3691	.4764	.4746	.2494	.4007	.4157	.3577	.4588	.3478	.4298	.4198	.4381	.4079					
.4892	.5009	.3747	.5503	.4696	.5918	.3207	.3857	.3495	.3889	.4258	.4520	.5682	.4195	.4106				.7695	9+00W
.5029	.4963	.5468	.5029	.5181	.4359	.1180	.4268	.5174	.4274	.3688	.4643	.5328	.4997	.5389					
.3085	.4768	.4270	.5000	.3431	.4155	.3572	.3790	.3269	.2418	.4200	.4671	.5359	.5467	.6184				.8265	8+00W
.3562	.5136	.5805	.5382	.4468	.3958	.3495	.4718	.3531	.4664	.4448	.4407	.5482	.5195	.5732				.6497	
.4905	.3809	.5701	.5001	.4106	.3328	.3792	.4284	.5720	.4355	.4612	.4185	.5959	.5701	.5623				.5369	7+00W
.3550	.3216	.7432	.16,740	.5385	.5594	.3682	.3831	.3909	.4123	.4641	.5106	.6068	.1505	.4764				.5675	
.7141	.3274	.5078	.3766	.5482	.5993	.3615	.3978	.4802	.4810	.4455	.5374	.7985	.1541	.7645				.7967	6+00W
.4475	.4324	.3783	.9546	.6565	.7170	.2917	.3697	.4995	.4501	.4795	.5742	.6500	.4321	.8380					
.5706	.4079	.3999	.6700	.6437	.6135	.9403	.4091	.5323	.5106	.4635	.4562	.7351	.6668	.7211	.6488	.7582	.3971	.6982	5+00W
.4657	.4282	.3863	.6218	.4630	.4271	.8428	.4475	.5855	.5957	.554	.6761	.6213	.7110	.6284	.6666	.7165	.7379		
.3440	.5065	.1811	.6317	.4282	.11,336	.6921	.3882	.5406	.4658	10,727	.7773	.7539	.5928	.5256	.5684	.7628	.5684	.7367	4+00W
.3083	.4608	.3446	.4821	.5169	.4656	.5515	.5560	.4933	.5776	.4617	.5619	.6933	.5834	.6935	.6821	.7789	.5398		
.3586	.3004	.2610	.6019	.5784	.5648	.6330	.4612	.5756	.6239	.5007	.6336	.6406	.5198	.5210	.6738	.7691	.6780	.6267	3+00W
.9850	.2109	.2785	.5785	.5488	.6167	.2179	.4877	.5765	.6824	.5681	.6030	.5937	.5365	.6709	.6836	.6884	.5392		
.3957	.1598	.4182	.4696	.5385	.5636	.5236	.6167	.6780	.6738	.5887	.5309	.5294	.5732	.4694	.5337	.6079	.6329	.6126	2+00W
.4138	.2573	.2885	.3280	.4708	.3987	.5104	.6263	.5883	.6463	.6544	.6544	.5487	.5759	.6177	.6925	.5913	.5636		
.3367	.4405	.2943	.1973	.3537	.2971	.5007	.5776	.6636	.5881	.6086	.6764	.6696	.5711	.5901	.5921	.5482	.6461	.5918	1+00W
.3256	.4089	.3806	.4358	.4463	.3871	.4908	.5007	.5658	.5786	.5628	.5371	.4665	.5776	.5643	.6468	.6256	.7476		
.3928	.4518	.4701	.3807	.4116	.3924	.4455	.4980	.5496	.5070	.5909	.4472	.5380	.5672	.10,935	.5631	.7019	.6673	.5675	
A																			
	.4607		.4224	.4448	.4959	.4573	.5106	.5190	.4838	.6562	.6364	.6310	.5009	.5806	.6970	.6345	.4632		
	.4499		.4453	.3548	.2548	.4816	.5431	.5186	.5821	.4856	.6063	.5231	.3167	.4627	.5094	.5867	.5923	.5061	1+00E
	.4162		.4434	.4142	.4513	.5364	.5139	.4995	.5300	.4783	.5523	.5897	.3899	.5846	.5947	.5392	.5959		
	.4551		.3011	.3956	.3285	.5335	.4147	.3976	.5983	.5612	.5612	.4978	.3803	.5068	.5446	.5931	.5921	.5434	2+00E
	.4511		.7348	.4229	.4104	.5530	.6186	.5243	.6746	.5614	.5427	.5728	.4639	.5017	.4034	.5323	.5178	.4696	
	.4650		.4511	.5926	.2667	.4632	.5365	.4562	.5802	.193	.5742	.5307	.6985	.4627	.4002	.5764	.6785	.4118	3+00E
	.4494		.4921	.6955	.3124	.5468	.5921	.5591	.4686	.4678	.4891	.5299	.4277	.4103	.5552	.6123	.6596		
	.4036		.5190	.3761	.2658	.5607	.5636	.5765	.4623	.3631	.5302	.5476	.3880	.5050	.5527	.6401	.5277	.5296	4+00E
	.3836		.4742	.2369	.2083	.4114	.3897	.3959	.4802	.3567	.4832	.3662	.2854	.4364	.4757	.5212	.4499		
	.4024		.3430	.2618	.1825	.3092	.3182	.4007	.5417	.4365	.4508	.3756	.5236	.5219	.4713	.5033	.4965	.3365	5+00E
	.3792		.4592	.5041	.3819	.2160	.4318	.4689	.4976	.5614	.4701	.2254	.2875	.5174	.4358	.6319	.5857		
	.3872		.4603	.4913	.3727	.3860	.5441	.5761	.4481	.6196	.4790	.2794	.4726	.5581	.6061	.4930	.5857	.3856	6+00E
	.3862		.4780	.4568	.1895	.3267	.5598	.5511	.2813	.4647	.4523	.3132	.4691	.6189	.5981	.5307	.6465		
	.3584		.5162	.4935	.3114	.3918	.5234	.5169	.4687	.6085	.4551	.3153	.2883	.5496	.6044	.5114	.6408	.4357	7+00E
	.3704		.5362	.3722	.3141	.3936	.5169	.6224	.5810	.5398	.5123	.3655	.2695	.5145	.6922	.5126	.6148		
	.3766		.4863	.3647	.3836	.3944	.5134	.4491	.4768	.4973	.5369	.4260	.3109	.5325	.6850	.5017	.4885	.5387	8+00E
	.3916		.4718	.3812	.3495	.4416	.4782	.3481	.5166	.5829	.4997	.3476	.2791	.3611	.5658	.5355	.5055		
	.5012		.4351	.3543	.3373	.4311	.4658	.4435	.5231	.6251	.5370	.3092	.3983	.4123	.5282	.5193	.4378	.4082	9+00E
	.4135		.4882	.3724	.2789	.5362	.4488	.4976	.4496	.4081	.4759	.3466	.3957	.3670	.5087	.5740	.5912		
10+00E	.4089		.5099	.2480	.2863	.5572	.5583	.4400	.5232	.5564	.5382	.5128	.4685	.3609	.5387	.4874	.4501	.5132	10+00E
							.4893	.4863		.4669	.4367		.3729	.3170	.3300		.4925		
							.5085	.4903	.4908	.3633			.3964	.4460	.3406		.5581		11+00E
							.3679	.4388	.5887	.5849	.2536	.4000	.614	.4846	.4477		.5219		
							.4460	.3736	.5061	.4573	.3664	.6817	.4646	.4409	.6220		.3205		12+00E
							.3474	.5623	.5441	.5906	.3546	.5422	.3946	.4091	.4822		.2891		
							.12,466	.4330	.5499	.7365	.4029	.3702	.4484	.4940	.4012		.4852		13+00E
							.4205	.4062	.5581	.5740	.4622	.4827	.4964	.4846	.4398		.4347		
							.3387	.4506	.5644	.4778	.5205	.5864	.4332	.4677	.4952		.4627		14+00E
							.5867	.4817	.8916	.4511	.5087	.4913	.5139	.4749	.4706		.4737		
							.2669	.2524	.4675	.4355	.4846	.4846	.4701	.4942	.4957		.4518		15+00E

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 702 MAP #5

Note. 34,108 is deducted from instrument readings.
Askania Torsion Mag'ter. Operator: M. McGinnis

DATE:	REVISIONS:	BY:	APP.:

CANADIAN JOHNS-MANVILLE COMPANY LTD.
EXPLORATION DEPARTMENT
VANCOUVER - BRITISH COLUMBIA - CANADA

Zus Mtn., Liard M.D., B.C.

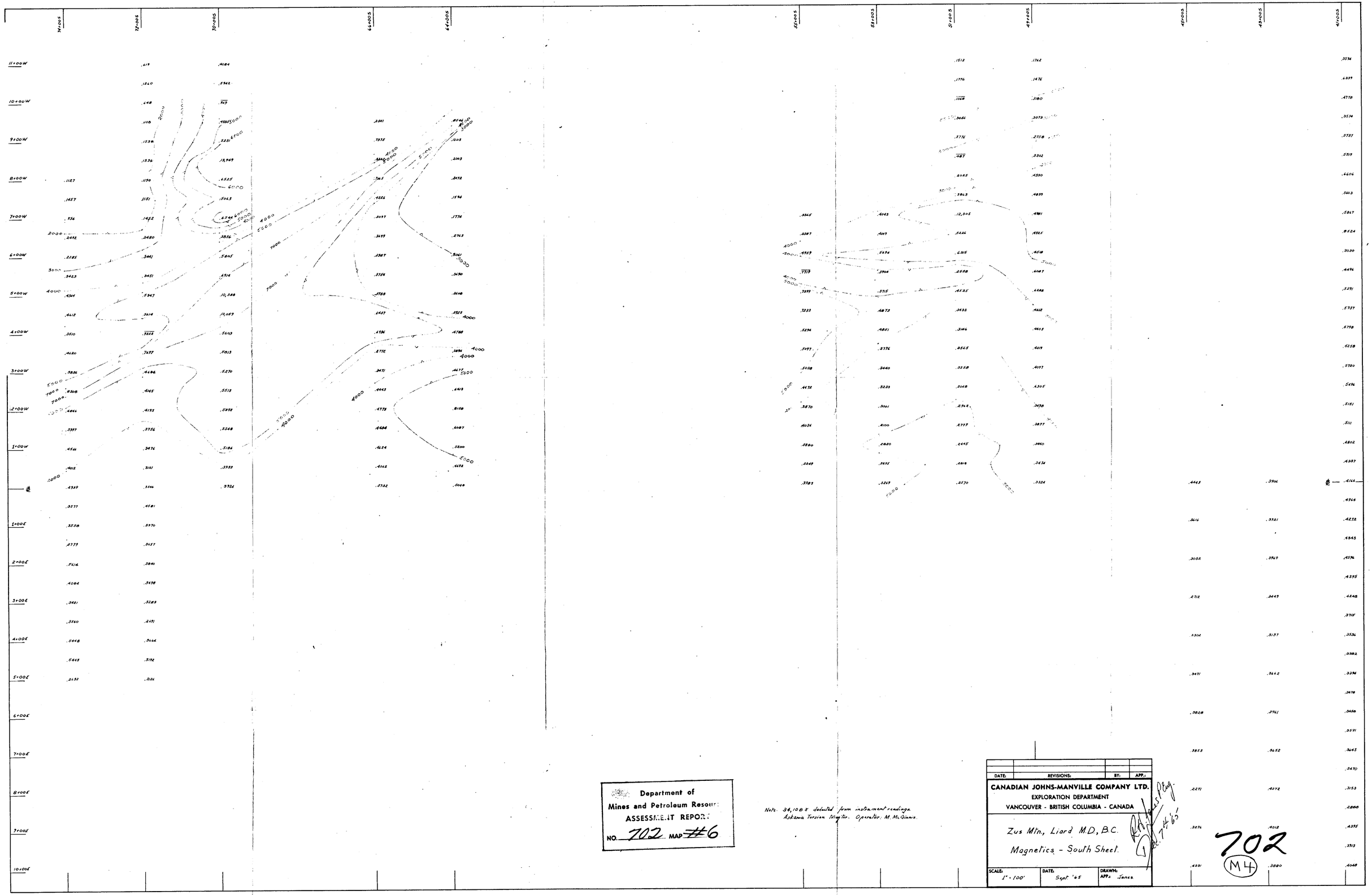
Magnetics - North Sheet.

SCALE:	DATE:	DRAWN: / APP.:
1" = 100'	Sept. '65	Janes.

702
(M3)

40+00S | 39+00S | 38+00S | 37+00S | 36+00S | 35+00S | 34+00S | 33+00S | 32+00S | 31+00S | 30+00S | 29+00S | 28+00S | 27+00S | 26+00S | 25+00S | 24+00S | 22+00S

ARGUS
VERTICAL FILING SYSTEMS.
Moisten the full length of gummed edges, place tracing square(s) on lower half, and press strip down firmly.
STRIP REF. No. 5703/028



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 702 MAP #6

Note: 34,100 S deducted from instrument readings.
Askania Torsion Magtr. Operator: M. McGinnis.

DATE:	REVISIONS:	BY:	APP.:

CANADIAN JOHNS-MANVILLE COMPANY LTD.
EXPLORATION DEPARTMENT
VANCOUVER - BRITISH COLUMBIA - CANADA

Zus Mtn., Liard M.D., B.C.
Magnetics - South Sheet.

SCALE:	DATE:	DRAWN: APP.:
1" = 100'	Sept '65	Jones

702
(M4)