

187-20-15522

1/88

PRINCE GEORGE



Province of
British Columbia

Ministry of
Energy, Mines and
Petroleum Resources

ASSESSMENT REPORT
TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S) DRILLING ; PHYSICAL	TOTAL COST \$16,030.21
--	----------------------------------

AUTHOR(S): **Rene Trifaux**

SIGNATURE(S): *[Signature]*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED **January 15, 1987** YEAR OF WORK **1986**

PROPERTY NAME(S)

SOVEREIGN

COMMODITIES PRESENT

Ni

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

93A-89

MINING DIVISION

Cariboo

NTS

93A/13W

LATITUDE

52° 59.4'

LONGITUDE

121° 53.6'

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property. (Examples: TAYLOR 14, RIFE 2 (2 units), PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (2 units involved).)

**WIM 1-2 (2 units total), WIM-TA 1-6 (6 units total),
WIM-TA 7 (2 units), WIM-TA 8 (2 units),
WIM-TA 9 (1 unit), ARNE (2 units), TOM (1 unit)**

OWNER(S)

(1) **R. Trifaux and Trifco Minerals Ltd.**

FILMED

MAILING ADDRESS

**308 - 751 Clarke Road, Coquitlam, B.C.
V3J 3Y3**

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

OPERATOR(S) (that is, Company paying for the work)

(1) **as above**

MAILING ADDRESS

as above

15,522

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude)

Upper Triassic phyllite, argillite, quartzite ^{and} schist ^{metamorphosed to} greenschist facies.

Extensive metamorphism ^{an} of ultramafic intrusion ^{results in} extensive talc occurrences.

The claims are underlain by

REFERENCES TO PREVIOUS WORK

WIM, WIM-TA & ARNE CLAIMS ASSESSMENT WORKS 1986-1987

TABLE OF CONTENTS

	PAGE #
1. Introduction	
Property Description	1
Geographic location	1
Physiography - access	1
History - economic evaluation	2
Objective of present works - economic evaluation	2
2. Drilling - economic evaluation	3 - 4
3. Expenditures - summary	5
R. Trifaux - summary of expenses	6
- time, meals, mileage	7
A. Fardal - time, mileage, miscellaneous	8
P. McCarthy - time	9
R. Trifaux - miscellaneous expenses	10
Consulting expenses - field work	
(a) Engineers - Invoice 8607 - 09	11
(b) H. Allen Diamond Drilling Co. - Invoice 717	12
4. Report to Mining District Geologist - Prince George	13
5. Report from A. Fardal - talcs expenditures	14 - 16
6. Report on analyses by Chemex Lab	17
7. Report by S. Croft on diamond drilling, core logging, reserves, geology, location etc.	Insert
8. Photographs on diamond drilling	18 - 20
9. Statement of qualifications	21 - 24
MAPS - Claims location 1986	

INTRODUCTION

Property Description

The claims are located in the Sovereign Creek area, in the Cariboo Mining Division at 52° 59' 30" N 121° 53' 30" W NTS - 93 A/13W.

Pertinent claims data on the subject property verified at the Mining Recorder's office by the geologist gave the claims names, number, records nos.

Also, the geologist inspected the field and found several claims posts and in his opinion, staking conforms to the Mineral Regulations for British Columbia.

Geographic Location

Map: Wim-Ta claims. Figure 1, page 3 of the geologist's report, the property is on the south flank of the Sovereign Mountain between 3,500 and 4,500 feet of elevation.

Physiography - access

The access of the Wim-Ta claims group, is by way of the Swift River Forestry Road (No 1300) which leaves southward from Highway 26 at a point 32 Kms east of Quesnel. Talc occurrences in the Do-Do Creek are within 500 meters of the road and reached by foot. All the talc occurrences in Creek 1, Creek 2 & Creek 3 are within 150 meters of the road and some occurrences are at the road.

History - Economic evaluation

The talc occurrences have been recognized by R. Trifaux since 1960. In the early 1970's R. Trifaux explored the ultramafic for nickel and cobalt with 6 shallow diamond drill holes. Extensive talc mineralizations were noted at that time.

Sulphides with Ni, Co, Cu, Pt, Ag & Au were found. The nickel is not in silicates, it is in pentlandites. Chromite showings are numerous - magnesite in the rocks reaches 30%/ton analyzed by Fraser Laboratories Ltd.

Object of Present Works - Economic evaluation

The work in 1986-1987 focussed on a work program containing 300 feet of diamond drilling, geological mapping and prospecting for locations of talcose in the vicinity of the Do-Do Creek, Creek 1, Creek 2 and Creek 3.

During the 1985-1986 period a geological report has been established by the firm of consultants, Nevin, Sadlier-Brown & Goodbrand Ltd. (Geologists) in Vancouver, showing the talc locations encountered by Mr. B. Fairbank, the geologist who came on the sites. The conclusion in the report demonstrated talc occurrences on a distance of 1400 M approximately.

This year, Mr. S. Croft, geologist with the same firm of consultants, identified the presence of talc in 16 hand dug pits and measured an area of 3000 M² containing talcose schists in bedrock or boulders.

Diamond Drilling - Economic evaluation

A rough evaluation of the possible reserves in that area is as follows:

The average depth known in the peridotite talc is 25M. We considered the same width here and we have a possible tonnage of

$$\text{Area } 3000 \text{ M}^2 \quad \text{Volume} = 3000 \times 25 = 75,000 \text{ M}^3$$

Depth 25 M Specific gravity 2.7

$$\text{Tonnage} = 75,000 \times 2.7 = 202,500 \text{ tons}$$

The ore here contains to 90% talc - say 85%

$$202,500 \times 85\% = 172,000 \text{ tons of platy talc.}$$

Also, Mr. S. Croft observed an area of 200M x 150m = 10,000M²

We considered a depth of 15M to come with the following volume:

$$10,000 \times 15 = 150,000 \text{ M}^3 \times 2.7 = 405,000 \text{ tons of ore at 85\% talc} \\ = 344,250 \text{ tons (possible tonnage).}$$

Total possible tonnage based on Mr. S. Croft's observations equals 172,000 + 344,250 = 516,000 tons.

The talc consists of steatite as per the geologist.

Recent diamond drilling during June, 1986, on Trifco Minerals Ltd. claims, gave proven and probable reserves of 150,000 tons of talc, possible reserves are 316,000 tons.

Possible values at 45% talc are 142,200 tons.

$$\text{Total possible reserves to date are } 172,000 + 344,250 + 142,200 \\ = 658,000 \text{ tons at } \$250 \text{ per ton} = \$164,000,000$$

Diamond Drilling - Economic evaluation (continued)

Several unexplored talc occurrences are present on the property with good potential to develop further reserves.

Drilling - 3 drill holes - collar location

No 1 - 121° 51' 30" West 53° 59' 20" North

No 2 - 121° 51' 31" West 53° 59' 22" North

No 3 - 121° 51' 32" West 53° 59' 25" North

Elevation - No 1 hole 3276'

 No 2 hole 3278'

 No 3 hole 3282'

Inclination - vertical

Hole core diameter - 30 m/m diameter

Core/cutting logs described by Mr. S. Croft

Location core cutting storage - home of our Mr. A. Fardal at
408 Fiege Road, Quesnel, B.C.

Assays result correlated with logs in the report of Mr. S. Croft.

Expenditures

<u>Geochem surveys</u>		\$ Nil
<u>Drilling</u> - invoice #717 June 30, 1986 area 100m x 35 = 3,500 M2		5,000.00
<u>Geologists</u>		
Consultation, field work and report preparation.		
Invoice #8607 - 09	5,770.00	
Rentals - word processing	61.75	
Disbursements - Burden	<u>2,284.35</u>	\$ 8,116.10
<u>Other Exploration Costs</u>		
A. Fardal - Base line, pit digging, platy talc. Trail cutting - creek 1 & 2, power saw. Cruising for outcrops. Packing rig to Do-Do creek drilling site. Testing sites for talcs. Invoices 2A & 3A	\$1,107.75	
McCarthy time - invoice 1A	60.00	
Miscellaneous costs - invoice 140-303	28.09	
R. Trifaux supervision, report and administration	968.00	
Miscellaneous expenses, lodging, meals and stakes	584.22	
Report typing, stationery, photocopies	<u>166.05</u>	
		\$ 2,914.11

Total Expenses		\$16,030.21

SUMMARY OF EXPENSES

R. Trifaux, A. Fardal & P. McCarthy

<u>R. Trifaux</u>			
Time	\$	742.50	
Mileage		105.50	
Meals		<u>120.00</u>	\$ 968.00
<u>A. Fardal</u>			
Time	\$	790.00	
Mileage		<u>317.75</u>	1,107.75
<u>P. McCarthy</u>			
Time	\$	60.00	60.00
<u>Miscellaneous Expenses</u>			
A. Fardal - Invoice 140303			\$ 28.09
R. Trifaux - Lodging 1,044.36 - 2	\$	522.18	
- Meals - restaurant		53.59	
- Stakes		<u>8.45</u>	584.22
- Photographs	\$	16.05	
- Typist		<u>150.00</u>	166.05
Total			\$2,914.11 =====

NOTE: Total motel costs for the trip amounted to \$1,044.86. I divided the cost by 2, half on the drilling program and the rest on the Trifco claims.

R. Trifaux Expenses 1986 - 1987

DATE	BRIEF DESCRIPTION	TIME	MILEAGE	MEALS
19-05-86	Work preparation order for field work - phoned A. Fardal	3		
05-06-86	Trip to Quesnel		680	
06-06-86	Creek 3 - visits to pits dug to locate talc in banks	2	45	1
07-06-86	Planning drilling program - visit Creek 2 - locate talcs	2	45	1
08-06-86	Planning with driller - locate holes. Samples Creek 3. Photos.	2	45	1
09-06-86	Talks with Allen Drilling Co. access roads location	1	45	1
10-06-86	Talks with Allen Drilling Co. for location first access road	2	45	1
11-06-86	On site, talcs location & works for first road with cat skinner	1	45	1
15-06-86	Talks with Fardal on works done. Fell in bush - injury to back.	2		
19-06-86	Drilling site with Allen Drilling. Difficulties with samller rig.	1	45	1
21-06-86	Rig transportation to the top on the drilling site	2	45	1
22-06-86	Drilling is going on - visit to the site	3	45	1
23-06-86	Met geologist (B. Fairbank) at airport - visit drilling site	7	45	1
24-06-86	Drilling site with geologist (S. Croft) - first hole	4	45	1
25-06-86	Drilling site with S. Croft - second hole	3.5	45	1
26-06-86	Analyses outcrops for 3rd hole with Fardal and Croft	2	45	1
27-06-86	Start of 3rd hole in talc - west of 2nd hole	2	45	1
28-06-86	Visit on the site - analyses of all the works done	5	120	1
29-06-86	Return to Coquitlam	5	680	1
		49.5	2110	16

Time	49.5 hours x \$15.00 =	\$742.50
Mileage	2110 Kms x 0.25 x 0.2 =	105.50
Meals	16 meals x \$7.50 =	<u>120.00</u>
Total Expense		\$968.00

NOTE: Heavy rains deleted timing of drilling considerably because of soft spots on the terrains and difficulties of access road building. Time on drilling was negligible at the beginning but improved with better weather.

A. Fardal Expenses

DATE	BRIEF DESCRIPTION	TIME	MILEAGE
<u>WIM-TA 6</u>			
26-05-86	Two men dug 15 test holes - 2 feet deep	6	83
27-05-86	Blazed and flagged 500 m line with 1 man	4	76
28-05-86	One man dug hole 4' wide x 5' deep	5	76
29-05-86	Checked two creeks for possible exposure of talcs - 2 hole 2' wide x 2' deep	4	76
30-05-86	Blazed and flagged 1000 m line	5	76
02-06-86	Trail cut with power saw .1 m wide and 300 m long - two men	6	83
03-06-86	One man dug four test holes for talc	5	76
06-06-86	Checked first holes for exposures	6	82
07-07-86		6	82
<u>WIM-TA 2</u>			
19-06-86	Cruised with cat operator for access	3	75
21-06-86	Packed drill up to drill site	6	96
22-06-86	Photographs of drill sites	2	75
23-06-86	Looking for new outcrops for talc	4	77
24-06-86	Dug four test holes - numbered base lines station every 100 m for 500 m	4	83
25-06-86	Tested drill site with bar for showings	4	80
26-06-86	Cleaned 4 test holes and took samples	4	75
<u>WIM-TA 6</u>			
23-06-86	Checking test hole survey and measuring with geologist	2	
24-06-86	Numbered base line station at 100 m for 500 m	1	
26-06-86	Collecting samples for analyses - Creek # 3	1	
<u>WIM-TA 1</u>			
23-06-86	Checking showings with geologist on Creek # 2	1	
		79	1271
Totals: Time 79 hours x \$10.00		\$	790.00
Mileage 1271 Kms x 0.25			<u>317.75</u>
			\$1,107.75

P. McCarthy Expenses

May 26, 1986	Digging pits on claims 6 hours x \$5.00	\$ 30.00
June 2, 1986	Digging pits on claims 6 hours x \$5.00	30.00
		<u>60.00</u>
		\$ 60.00

Miscellaneous Expenses - R. Trifaux

Motel - 100 Mile House	\$	29.96	
- 100 Mile House		32.10	

	\$	62.06	
Hotel - Good Night Inn		982.30	

	\$1,044.36 ÷ 2		\$ 522.18
Meals	\$	6.20	
		6.25	
(with Fardal)		41.14	

	\$	53.59	53.59
Stakes			8.45

Total			\$ 584.22

VOK 280.

INVOICE NO. 717.

June 30, 1956.

To: Trifco Minerals Ltd.,
Suite 308,
751 Clarke Road,
Coquitlam, B.C.
V3J 3Y3.

In Account with:

H. Allen Diamond Drilling Ltd.,
Box 1397,
Merritt, B.C.
V0K 2B0.

This invoice is for diamond drilling at
your De do Creek property:

300 ft. @ \$15.00 per ft.....	4,500.00
Robe de robe.....	<u>500.00</u>
	5,000.00
Less advance.....	<u>2,000.00</u>
	3,000.00



PAID

by cheq: n° 0083 - 2,000.00
+ n° 0087 - 3,000.00
Total 5,000

Mr. R. Lewis, P. Eng.,
Cariboo Mining District Geologist,
1652, Quinn street,
Prince George,
British Columbia.

July 5th, 1986

Dear Mr. Lewis,

Re: Diamond Drilling on Trifco Minerals Ltd,
property in the Cariboo Mining District:

As per our phone conversation of the 3rd instant, I inform you that the diamond drilling on the ~~Win-Win-Ta~~ claims has been done.

Unfortunately it has not been done exactly as planned as I told you on the phone. We encountered bad weather at the beginning and it was difficult for the caterpillars to build the small road that we intended to do. Soft spots developed here and there and the contractor didn't like to risk difficulties with the big rig.

So instead of drilling in the platy talcs, we drilled in the peridotite ones on the right bank of the Do-Do creek.

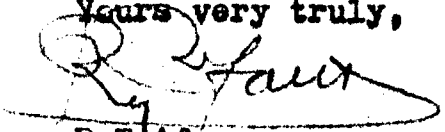
The pits on the area of the platy talc have been all dug. With a smaller rig which was transportable by men, we drilled the talcs on the ~~Win-no2~~ claim.

Like I told you, if you intend to go on the site, please do not hesitate to contact Arne Fardal, Fiege road, Quesnel, Phone no 7472548. Arne knows the works and places where the drilling was done and the pits.

I have contacted an Engineering Firm for a feasibility study and when decision has been taken for the plant, I will come to see you in Prince George.

I wish to thank you for your kind words of appreciation when we talked on the phone.

Yours very truly,


R. Trifaux.

RT-rt.

cc-Thomas Trifaux, Oakville.

Claim work done

May

Wim-Ta-6

26/6 hrs.
83 miles

Two men dug 15 test holes 2 feet wide by 2 feet deep.

Wim-2

27/4 hrs.
76 miles

Blazed and flagged 500 meter line with one man.

Wim-Ta-6

28/5 hrs.
76 miles

One man dug 4 feet wide by 5 feet deep test hole.

Wim-Ta-6 + Wim-Ta-1

29/4 hrs.
76 miles

Checked #2 creek for possible exposure + dug 2 test holes 2 feet wide by 2 feet deep. Done by one man walking 200 meters up creek.

Wim-Ta-6 + Wim-Ta-2

30/5 hrs.
76 miles

One man blazed and flagged 1000 meter line, marking every 100 meters with an orange + yellow ribbon.

June

Wim-Ta-6 + Wim-Ta-1

2/6 hrs.
83 miles

Two men cut with power saws a trail 1 meter wide by 300 meters long up creek #3.

Wim-Ta-6

3/5 hrs.
76 miles

One man dug 4 test holes 2 feet wide by 2 feet deep and 2 test holes 2 feet wide by 3 feet deep.

Andy + Wim-Ta-6

6/6 hrs.
82 miles

One man staked corner post at Andy. Two men checked test holes for exposure.

June

Wim-Ta-6 + Wim-Ta-1 + Wim-Ta-2

7.5 hrs.
'82 miles

Two men checked exposure on 200 meters of creek # 2
Two men cruised 500 meter line for possible access
road to drilling site.

Gene Garcia

June 8/86

SURVEY TEST HOLES ON W.M.-TA CLAIMS FOR PLATY TALC.
THERE WAS 4 LINES SPACED 25 METERS APART WITH 5 HOLES IN
EACH LINE SPACED 10 METERS APART HOLES WERE DUG 50-60 CM. DEEP.

3' HOLE
NO TALC

X L3-50 - POOR X L2-50 - POOR X L1-50 - GOOD X L0-50 - GOOD

X L3-40 - POOR X L2-40 - POOR X L1-40 - FAIR X L0-40 - GOOD

X L3-30 - POOR X L2-30 - POOR X L1-30 - FAIR X L0-30 - GOOD

4-5' HOLE
TALC ROCK

X L3-20 - GOOD X L2-20 - POOR X L1-20 - FAIR X L0-20 - GOOD

X L3-10 - GOOD X L2-10 - ^{FAIR} POOR X L1-10 - FAIR X L0-10 - GOOD

TALC ROCK

PLATY TALC ROCK

SWIFT RIVER FORESTRY ROAD

- GOOD - LARGE TALC FLOAT ROCKS FOUND IN HOLE.
- FAIR - SMALL TALC FLOAT ROCKS FOUND IN HOLE.
- POOR - TRACE OF TALC OR NONE AT ALL.

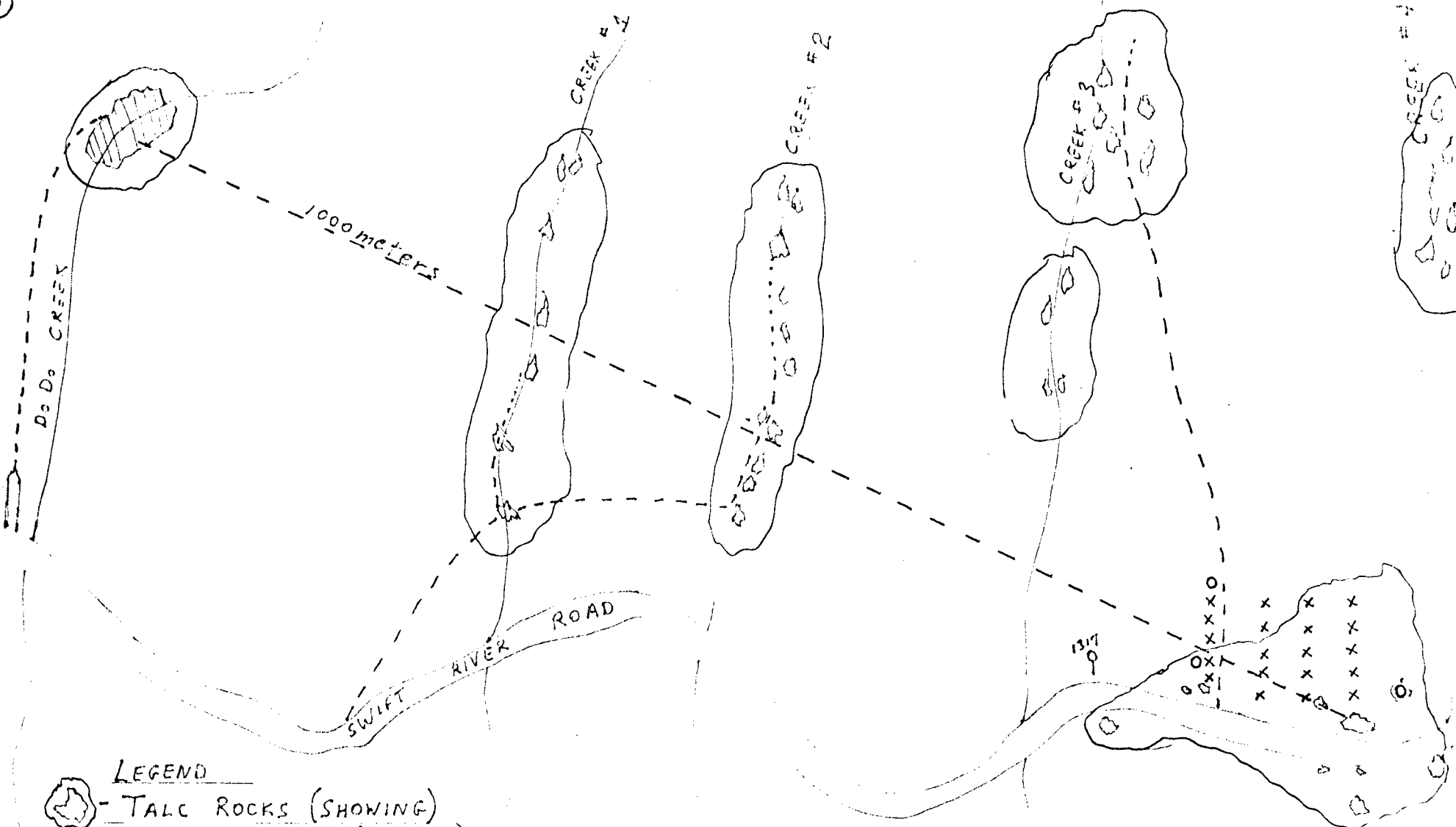
COMMENTS

L3-20 - AN EXCELLANT HOLE VERY LARGE TALC ROCKS WERE FOUND IN
4-5' HOLE DUG BESIDE IT.

L2 - THERE WAS A LOT OF OVERBURDEN IN THIS AREA TALC WOULD
PROBABLY SHOW UP DEEPER DOWN AS WAS THE CASE AT L3-50.

LINE 1 SHOWED GOOD PROMISE OF TALC BEING CLOSE WITH LARGE
TALC ROCKS SHOWING UP IN VERY TALCY SOIL.

THIS SURVEY WAS DONE BY ARNE FARDA IN QUESNEL ON JUNE 3, 76



LEGEND

- TALC ROCKS (SHOWING)
- TALC IN PLACE (SHOWING)
- TRAILS
- GRID LINES
- ♀ - Km. Posts
- X - SURVEY TEST HOLES 2' DEEP
- O - 4-5' TEST HOLES

MAP OF WIM-2, WIM-TA-1, 6
 OF TALC SHOWING
 DRAWN BY ARNE FARRAL
 IN QUESNEL ON JUNE 7/86

Arne Farral



Chemex Labs Ltd.

Analytical Chemists

Geochemists

Registered Assayers

Z
N
C
T
T

CERTIFICATE OF ANALYSIS

TO : NEVIN SADLIER-BROWN GOODBRAND LTD.,

401 - 134 ABBOTT ST.
VANCOUVER, B.C.
V6B 2K4

CERT. #
INVOICE #
DATE
P.O. #
264

Sample description	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	LOI %
No. 71601	30.10	1.31	6.08	27.07	10.83	0.07	0.06	0.040	<0.01	0.11	21.79
No. 71602	36.10	2.65	6.22	27.82	8.22	0.04	0.11	0.060	<0.01	0.11	17.64
No. 71603	41.49	5.18	6.86	27.85	4.08	0.08	0.33	0.090	<0.01	0.11	12.22
No. 71604	34.66	1.33	5.73	28.50	8.92	0.07	0.10	0.030	<0.01	0.09	19.51
No. 71605	41.29	2.50	6.77	28.19	5.22	0.11	0.11	0.080	<0.01	0.09	13.09
No. 71606	52.96	2.15	5.50	28.98	2.23	0.07	0.09	0.060	<0.01	0.07	7.52
No. 71607	33.96	1.22	6.00	33.10	6.57	0.05	0.07	0.040	<0.01	0.11	19.26
No. 71608	36.86	0.88	6.62	34.70	3.61	0.06	0.04	0.030	<0.01	0.08	16.44
No. 71609	28.59	3.64	6.36	27.84	6.94	0.07	0.07	0.110	<0.01	0.12	15.47
No. 71611	57.45	6.53	4.23	11.66	6.23	0.62	1.50	0.350	<0.01	0.11	11.14
No. 71612	45.82	6.22	6.83	30.60	0.97	0.11	0.14	0.220	0.03	0.03	9.26
No. 71613	32.94	1.20	7.16	29.25	6.92	0.09	0.07	0.040	<0.01	0.13	19.78

SYSTEMS BUSINESS FORMS LIMITED VANCOUVER TR201040

Sovereign Mountain - Do-Do Creek (peridotite talc)

Diamond Drilling by Allen Diamond Drilling Ltd. - View of the rig and the first core box with specimens of talc encountered on the right bank of the creek with Arne Fardal.

=====



=====

Longitude: 121° 51' 30" West

Latitude: 53° 59' 20" North

NTS - 93A13.

Sovereign Mountain - Do-Do Creek (right bank)

Diamond Drilling by Allen Diamond Drilling Ltd. (peridotite talc).
View of the rig with B. Fairbank and S. Croft, Geologists with
the firm Nevin, Sadlier-Brown, Goodbrand Ltd., Vancouver, B.C.
Mr. H. Allen and his son close to the rig.

=====



===== D
Co-ordinates: Longitude 121° 51' 30" West

Latitude 53° 59' 20" North

NTS 93A13

Sovereign Mountain - Do-Do Creek (right bank)

Diamond Drilling by Allen Diamond Drilling Ltd. (peridotite talc).
View of the rig in place on the second hole, with Mr. H. Allen
and his youngest son working.

=====



=====

Co-ordinates: Longitude 121° 51' 30" West
Latitude 53° 59' 20" North
NTS 93A13

STATEMENT OF QUALIFICATIONS

EDUCATION

1. Tamines School of Mines, Belgium. 2 years - diploma
2. Chatelineau School of Mines, Belgium. 2 years - diploma
3. University of Charleroi, Hainaut, Belgium. 1 year mining, geology, mining technologies, reports. 1 certificate

The copies of diplomas and certificates have been presented to the Cariboo Mining Division with my 1977-1978 statement of works in Quesnel, Cariboo.

4. I passed successfully the test of rocks and mineral identification with a mining engineer from the Department of Mines in 1978, in Robson Square, Vancouver.
5. Cost accounting (2 years) with McMaster University in Ontario.

EXPERIENCE

I have extensive experience in exploration and mining from Zaire (previously Belgian Congo) and from Ruanda - Burundi in Central Africa.

1. "La Compagnie Des Grands Lacs Africains" Brussels from Belgium. Minerals mined were cassiterite, columbite, gold and increase of reserves by exploration of benches in the creeks.
2. "La Compagnie Mirudi" affiliated company of the Grands Lacs Africains Company, Brussels, Belgium. (Cassiterite, Colombo - tantalites, gold ores). Localities: Mokoro, Musumba, Mutwe-Niamdo.
3. Mr. R. Henrion, Explorations Minieres in Central Africa, Busoro, Ruanda on Kivu Lake. (Cassiterites, Wolframites, Beryllium ores)
4. DeBorchgrave Mines d'Etain, Kigali, Ruanda. Open pit, underground mines of cassiterite, columbites.

I was successful in exploring the granitic massif of Central Ruanda-Burundi. I described my method of exploration in the 1977-1978 report (assessment works) related to the distances between lines and pits, flying prospecting, and systematic with calculations of zones of influence and reserves in placers. I opened several mines in gold, cassiterite, columbite, plotting and establishing the hydraulic works, worked in open pit and underground. I established topographical maps showing the locations of my discoveries.

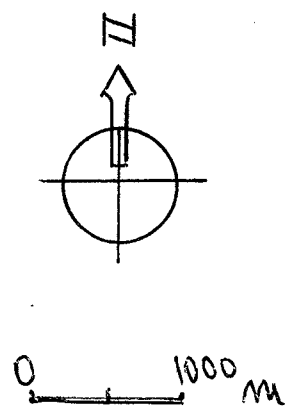
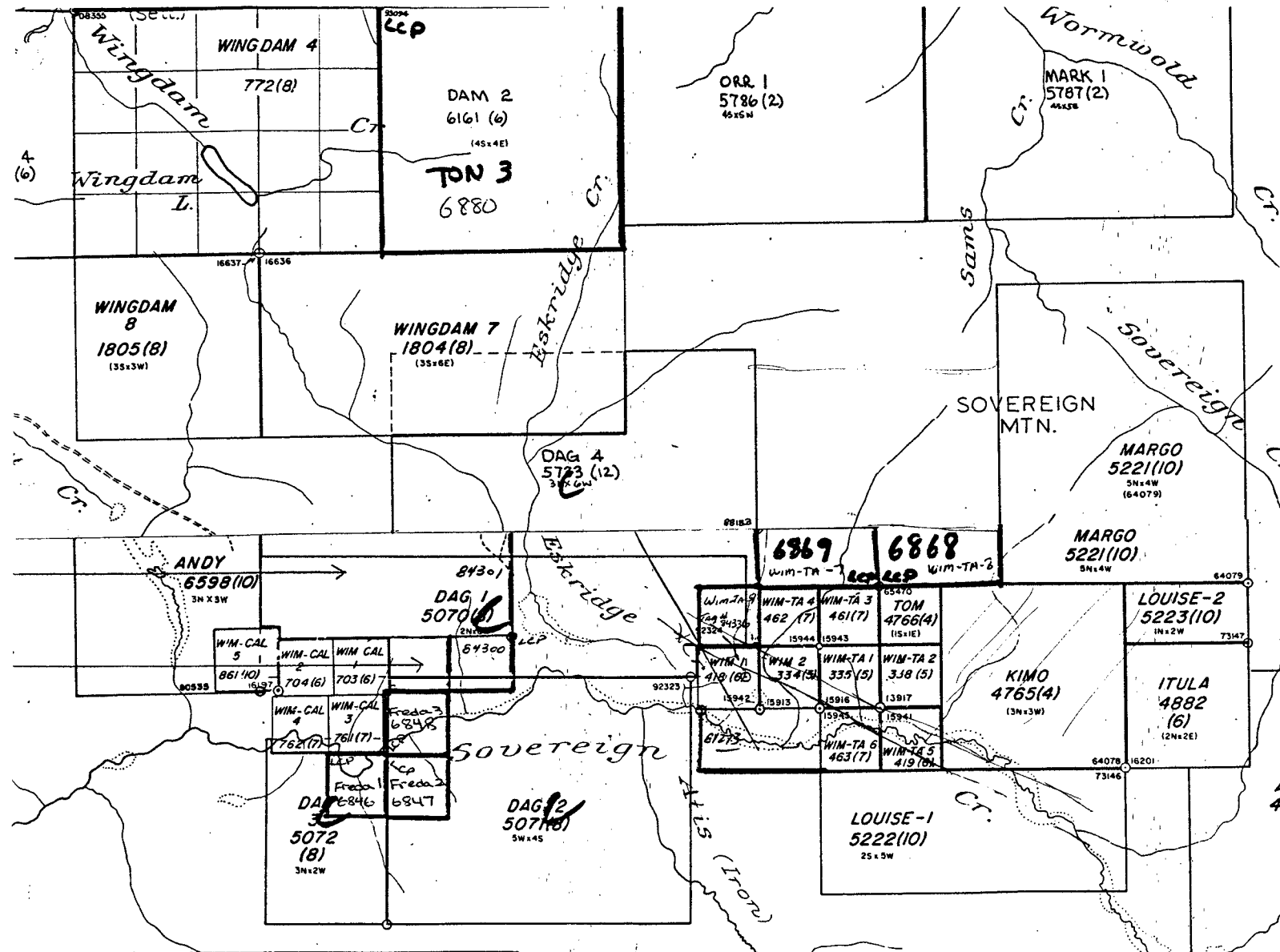
I started prospecting in British Columbia in 1959 for gold placer in the Cariboo Mining Division for a company. Today I have claims containing precious metals, base metals and industrial minerals. I do my geochemical surveys in silt, soils and rocks for my reconnaissance and systematic prospecting and orient my works according to the results of such surveys.

Beneficiation studies of some industrial mineral products have been done by the Ontario Research Foundation.

I am a member of the Canadian Institute of Mining and Metallurgy (CIM) and the Chamber of Mines of British Columbia. I buy my literature from the Department of Mines of B.C. and Ottawa and from the Geological Survey of Canada, in Vancouver. I have subscriptions to the Engineering and Mining Journal, CIM Bulletin, Chemical Week and Northern Miner. I keep informed with different publications from private and government organizations.

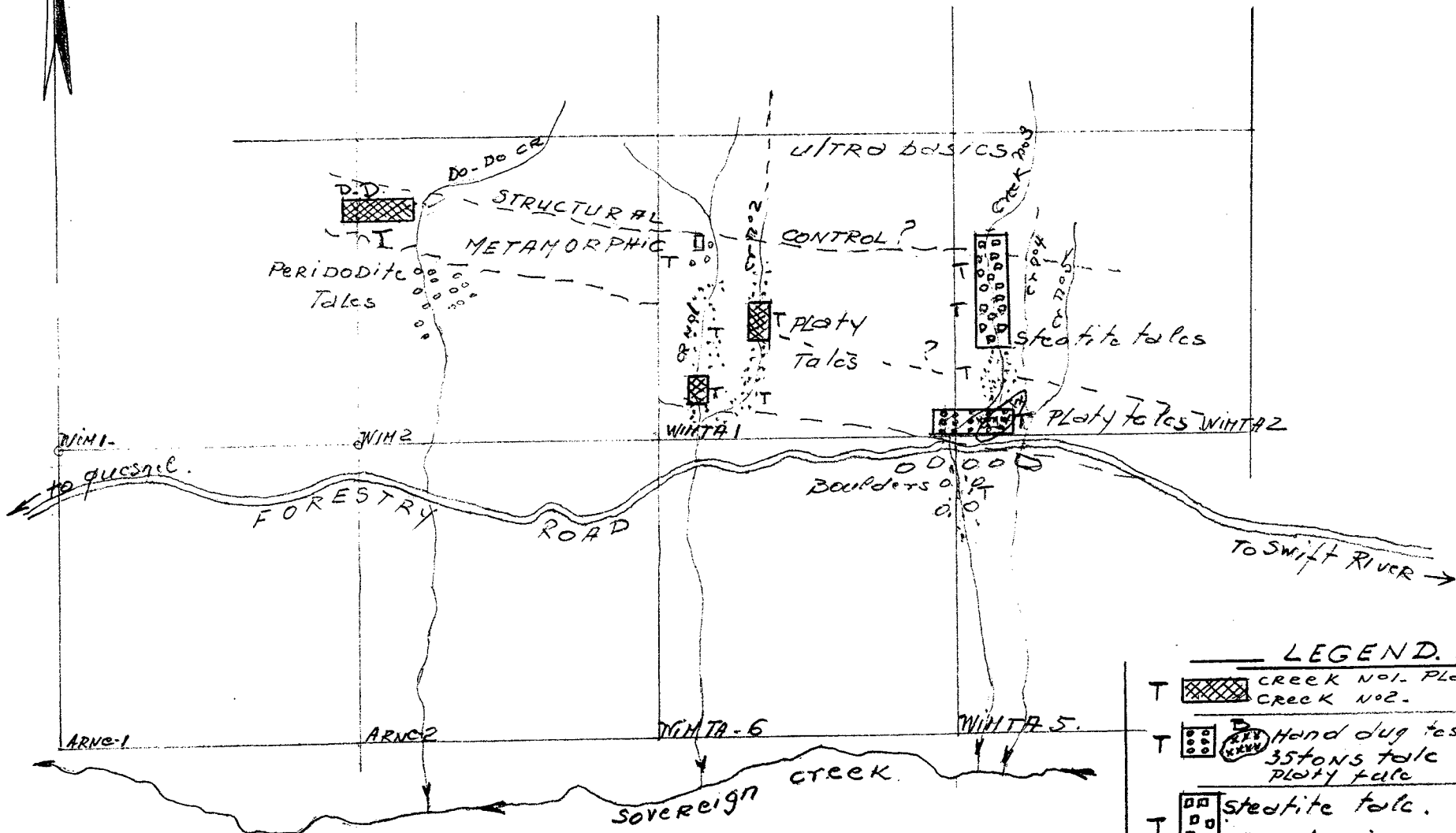
I consult with professionals and use the most up to date prospecting equipment available to prospectors (topolite, geiger counter, mineral light, stereoscope, small microscope, altimeters etc.)

I learned very useful informations on the industrial minerals from the Ontario Research Foundation, related to talc, graphlite, calcium carbonate, wollastonite etc. I am engaged in the research of miscellaneous industrial minerals which will be needed in the following years and the following century.



CLAIMS LOCATION
 WIM - WIMTA CL
 ARNE CL 1986

SOVEREIGN. WIM-WIM-TA CLAIMS.
TALCS OCCURRENCES.












0 200 M

Scale - 1cm = 100m.

January 9th - 1987.

R. J. Fall

- LEGEND.
- T  CREEK NO. 1. PLATY TALC
 - T  CREEK NO. 2. " "
 - T  Hand dug test pits.
 - T  35 tons talc boulder
 - T  Platy talc
 - T  steatite talc.
 - T  creek nos
 - T  D-D. Peridotite talcs. DIAMOND-DRILLED.
 - T  talc gravel in creeks.

REPORT ON THE 1986 DIAMOND DRILLING
on the
WIM-TA CLAIM GROUP

Sovereign Creek Area
93A/13W
CARIBOO MINING DIVISION
BRITISH COLUMBIA

for

TRIFCO MINERALS LTD.
#308 - 751 Clarke Road
Coquitlam, B.C.
V3T 3Y3

by

Stuart A.S. Croft, P.Eng.
Brian D. Fairbank, P.Eng.
NEVIN SADLIER-BROWN GOODBRAND LTD.

August 26, 1986

TABLE OF CONTENTS

	<u>Page</u>
1.0 SUMMARY	1
2.0 INTRODUCTION	2
2.1 Terms of Reference	
2.2 Property Description	
2.3 Access and Physiography	
2.4 Exploration History and Current Work Synopsis	
3.0 GEOLOGY	6
3.1 Regional Geology	
3.2 Talc Occurrences	
4.0 RESULTS	10
4.1 1986 Drilling Program	
4.2 Dodo Creek Deposit	
4.3 Analysis and Grade Determination	
4.4 Reserve Calculation	
5.0 CONCLUSION	19
5.1 Conclusions	
5.2 Recommendations	
5.3 Cost Estimate	
REFERENCES	22
<u>FIGURES</u>	
Figure 1 - Location Map	3
Figure 2 - Claim Map	4
Figure 3 - Regional Geology	7
Figure 4 - Property Map	8
Figure 5 - Dodo Creek Talc Deposit	12
Figure 6 - Reserve Calculations	17
<u>APPENDIX</u>	Following Text
Appendix A - Author's Certificate	
Appendix B - Diamond Drill Logs	
Appendix C - Details of Reserve Calculations	

1. SUMMARY

Recent exploration conducted during June, 1986 on Trifco Minerals Ltd.'s WIM-TA Claim Group situated 35 km east of Quesnel, B.C. has identified a zone of strong talc mineralization within a sequence of serpentinized ultramafic rocks. 91 m (300 ft) of diamond drilling in 6 holes with a backpack portable Winkie drill and associated geological mapping and prospecting on the "Dodo Creek Showing" have identified a zone at least 110 m in length, 35 m in width at surface and 20 to 25 m deep containing talc grades from 20% to as high as 95%. "Proven and Probable" reserves of 150 000 tonnes of material grade an average of 45% talc. "Possible" reserves are 316 000 tonnes grading an average 45 percent talc.

Several other unexplored talc occurrences (Creek 1, Creek 2, Creek 3, Swift River Forest Road) are present on the property with good potential to develop further talc reserves.

Continued exploration to further delineate the Dodo Creek talc deposit, and other showings on the WIM-TA Group is recommended. Bulldozer or backhoe trenching is required at Dodo Creek, Creek 3 and the Swift River Forest Road areas to open up the talc zones for inspection. Mapping and magnetometer surveys are recommended to determine the configuration of the individual zones and their relationship to each other. Additional drilling is recommended at the Dodo Creek deposit to expand reserves. Drilling of the other talc zones will be required following the initial surveys and trenching.

2. INTRODUCTION

2.1 Terms of Reference

Nevin Sadlier-Brown Goodbrand Ltd. (NSBG) was retained by Mr. Rene Trifaux, President of Trifco Minerals Ltd. to conduct a geological evaluation of talc occurrences on the WIM-TA claim group situated 32 km (20 miles) east of Quesnel, B.C. (Figure 1).

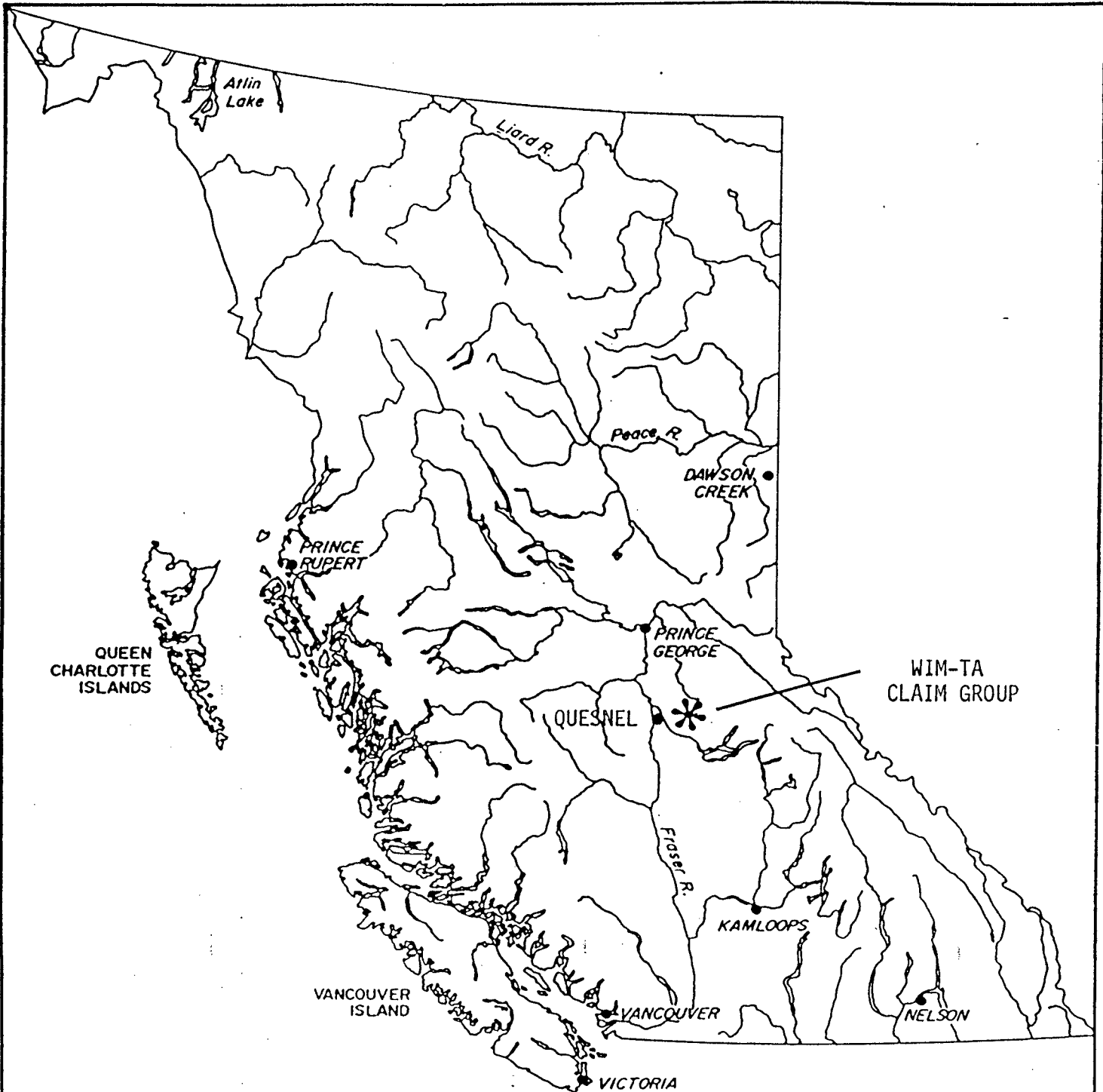
This report is based on a one week exploration and drilling program conducted June 23-29, 1986 under the supervision of the writer in the company of Mr. Trifaux. It is intended as a description and assessment of results of work recently performed on the property and as a set of recommendations for further development.

2.2 Property Description

Trifco Minerals Ltd. holds by terms of an agreement with Rene Trifaux the WIM-TA claim group which comprises 10 contiguous one-unit and three two-unit claims (Figure 2). The claims are located in the Sovereign Creek area in the Cariboo Mining Division at 52° 59' 30"N, 121° 53' 30"E (NTS Map Sheet 93A/13W). Several claim posts were inspected in the field and in the writer's opinion, staking conforms to the Mineral Act Regulations for British Columbia. Pertinent claim data on the subject property verified at the Mining Recorder's office, is summarized as follows:

TABLE 1 - CLAIM DATA

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Expiry Date</u>	<u>Recorded Owner</u>
WIM 1	418	1	June 8, 1986	Rene Trifaux
WIM 2	334	1	May 12, 1989	" "
WIM-TA 1	335	1	May 12, 1989	" "
WIM-TA 2	338	1	May 16, 1989	" "
WIM-TA 3	461	1	July 25, 1989	" "
WIM-TA 4	462	1	July 25, 1989	" "
WIM-TA 5	419	1	June 8, 1989	" "
WIM-TA 6	463	1	June 25, 1989	" "
WIM-TA 7	6869	2	June 26, 1989	" "
WIM-TA 8	6868	2	June 26, 1989	" "
WIM-TA 9	7082	1	Aug. 12, 1989	" "
ARNE	6893	2	July 10, 1989	" "
TOM	4766	1	April 14, 1990	" "



QUEEN CHARLOTTE ISLANDS

VANCOUVER ISLAND

DAWSON CREEK

PRINCE RUPERT

PRINCE GEORGE

QUESNEL

WIM-TA CLAIM GROUP

KAMLOOPS

VANCOUVER

NELSON

VICTORIA

TRIFCO MINERALS LTD.

LOCATION MAP
WIM-TA CLAIM GROUP

FIGURE 1

JULY, 1986

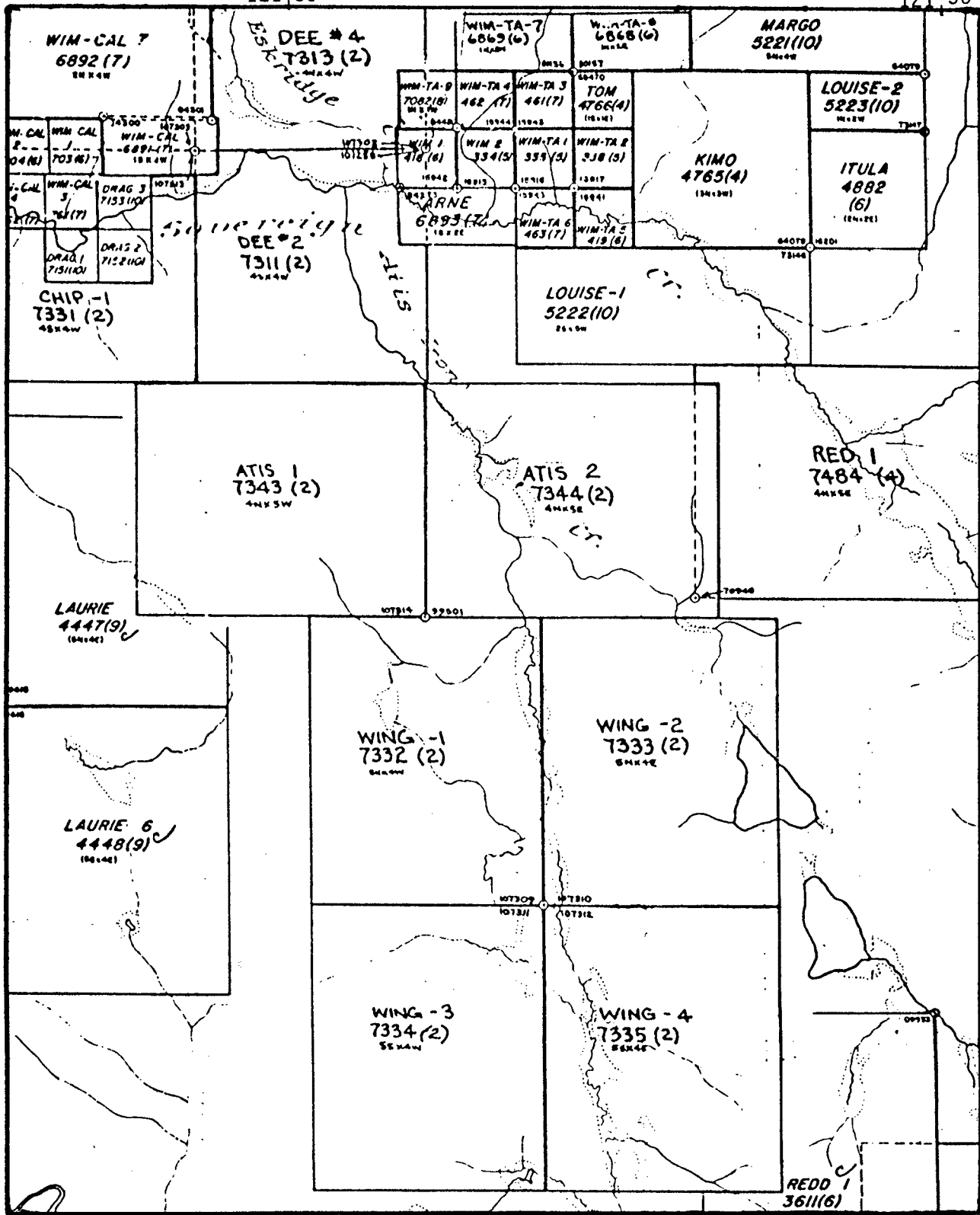
NEVIN SADLIER-BROWN GOODBRAND LTD.



121°55'

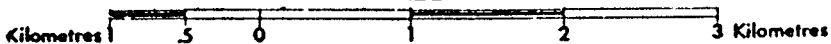
121°50'

53°00'



52°55'

SCALE



1:50 000

As of 4 July 1986

FIGURE 2

MINERAL CLAIM MAP
 WIM-TA Claim Group
 Sovereign Creek Area
 NTS 93A/13W

In order to simplify property administration and to ensure that no open fractions exist between the single unit claims, consolidation of the present land holdings into a single (12-20 unit) claim should be considered.

2.3 Access and Physiography

Road access to the WIM-TA claim group is by way of the Swift River Forest Road (No. 1300), which leaves southward from Highway 26 at a point 32 km (20 miles) east of Quesnel. The Swift River Road is an all weather, secondary gravel road that traverses the southern portion of the claims, crossing Dodo Creek at Kilometre 16. Talc occurrences on Dodo Creek, Creek 1, Creek 2 and Creek 3 are all within 500 m of the road and are reached on foot. Currently, there are no known permanent facilities on the group.

The property is on the south flank of Sovereign Mountain between 1050-1350 m (3500-4500 feet) in elevation. Local relief is 650 m (2100 ft). Mountains are generally rounded with moderate slopes forested predominantly by fir and pine. Perennial undergrowth is thick, particularly in shallow, moist depressions common throughout the property. Except along the creeks and at higher elevations, bedrock is mantled by overburden, resulting in poor outcrop conditions. Glacial drift blankets the low-lying southerly portions of the property.

2.4 Exploration History and Current Work Synopsis

The existence of talc at the Dodo Creek ultramafic has been recognized since at least 1960, when it was discovered by R. Trifaux. During the early 1970's, Mr. Trifaux explored the ultramafic for nickel with a series of shallow diamond drill holes. Extensive talc mineralization was noted at that time. More recently, prospecting by Trifco Minerals Ltd. has extended known talc occurrences across much of the WIM-TA group.

Exploration during June, 1986, focussed primarily on the Dodo Creek area. A work program involving 91 m (300 ft) of diamond drilling, geological mapping and prospecting, and sampling was conducted in this vicinity in an attempt to delineate the extent of the talcose serpentinite unit exposed in Dodo Creek. Work was conducted as partial fulfillment of the recommendations of an earlier report by NSBG (Fairbank, 1985). Additionally, a brief geological evaluation was performed at talc showings on Creek 1, Creek 2, and Creek 3 although the assessment was of a cursory nature.

3. GEOLOGY

3.1 Regional Geology

The property is underlain by three main geologic units (Figure 3). From youngest to oldest, these are as follows:

- Upper Triassic phyllite, argillite, quartzite, schist and minor greenstone (uT_{A1}) best exposed along Dodo Creek above the road.
- ANTLER FORMATION serpentinite and sheared mafic rocks (MP_{AU}) which are locally talcose
- RAMOS CREEK SUCCESSION (MP_R) olivine and micaceous quartzite, phyllite slate and limestone in the northern upper reaches of the property.

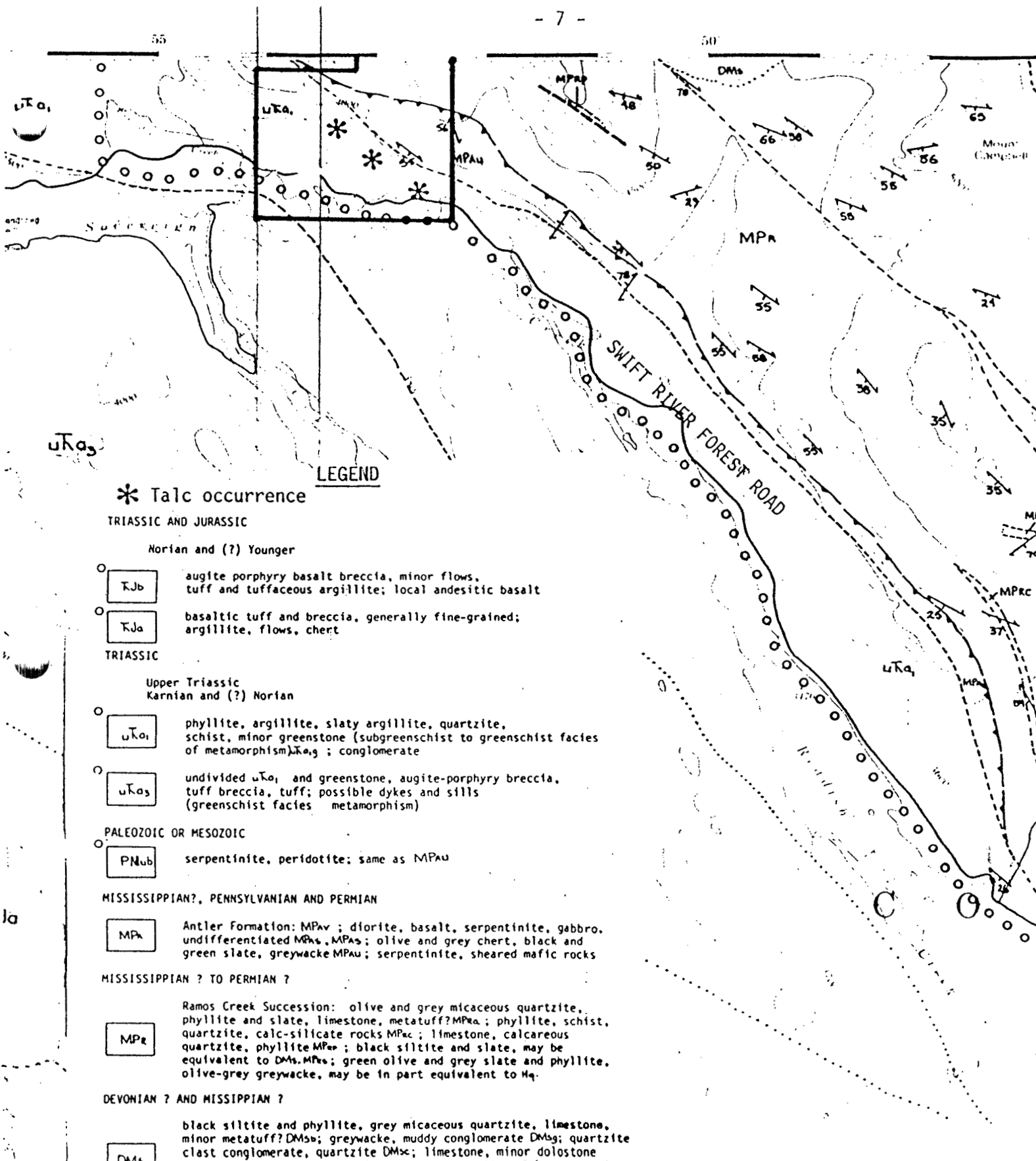
Upper Triassic rocks and the Antler Formation are thrust over the Ramos Creek Succession. Stratigraphy generally trends west-northwest and dips southwest. However, on a local or property scale recumbent drag folding and other complex structures are evident.

Folded graphitic phyllite in lower Dodo Creek (refer to Figure 4) strikes 120-145° and dips northward contrary to the regional trend. An overturned, anticline has an axial plane striking parallel to the foliation (bedding?) and dipping northward. These relationships indicate that additional fold structures must occur northward towards the Dodo Creek talc occurrence in order for strata to be in proper sequence, and that thickening and/or repetition of beds occur locally.

3.2 Talc Occurrences

Talc occurrences are confined to Antler Formation serpentinite and serpentinitized ultramafic intrusions (Figure 4).

Four widely separated areas of talc alteration along a one kilometre linear trend have been identified as:



*** Talc occurrence**

TRIASSIC AND JURASSIC

Norian and (?) Younger

- KJb augite porphyry basalt breccia, minor flows, tuff and tuffaceous argillite; local andesitic basalt
- KJa basaltic tuff and breccia, generally fine-grained; argillite, flows, chert

TRIASSIC

Upper Triassic
Karnian and (?) Norian

- uKa1 phyllite, argillite, slaty argillite, quartzite, schist, minor greenstone (subgreenschist to greenschist facies of metamorphism); conglomerate
- uKa3 undivided uKa1 and greenstone, augite-porphyry breccia, tuff breccia, tuff; possible dykes and sills (greenschist facies metamorphism)

PALEOZOIC OR MESOZOIC

- PNub serpentinite, peridotite; same as MPau

MISSISSIPPIAN?, PENNSYLVANIAN AND PERMIAN

- MPa Antler Formation: MPav; diorite, basalt, serpentinite, gabbro, undifferentiated MPas, MPas; olive and grey chert, black and green slate, greywacke MPau; serpentinite, sheared mafic rocks

MISSISSIPPIAN ? TO PERMIAN ?

- MPe Ramos Creek Succession: olive and grey micaceous quartzite, phyllite and slate, limestone, metatuff? MPea; phyllite, schist, quartzite, calc-silicate rocks MPec; limestone, calcareous quartzite, phyllite MPee; black siltite and slate, may be equivalent to DMs, MPas; green olive and grey slate and phyllite, olive-grey greywacke, may be in part equivalent to Hq.

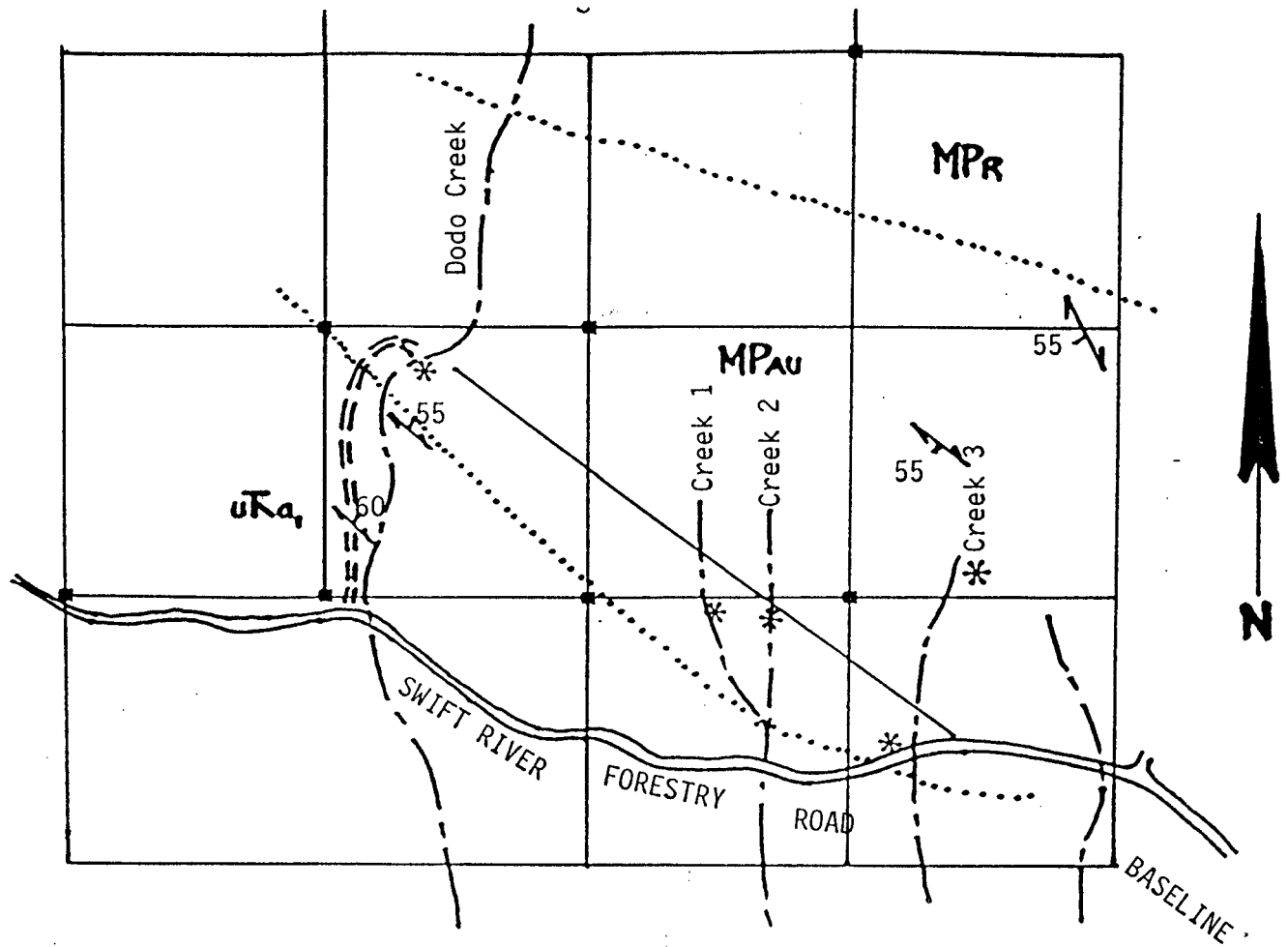
DEVONIAN ? AND MISSISSIPPIAN ?

- DMs black siltite and phyllite, grey micaceous quartzite, limestone, minor metatuff? DMsb; greywacke, muddy conglomerate DMsb; quartzite clast conglomerate, quartzite DMsc; limestone, minor dolostone DMsd; grey micaceous quartzite, dark grey phyllite, DMse; quartzite, minor conglomerate DMsf; interbedded grey slate and green metatuff in part calcareous





- Hq grey and olive fine micaceous quartzite, and phyllite, minor marble Hqa; marble, phyllite Hqp; grey and green phyllite, minor olive quartzite Hqq; white to dark grey quartzite

- HP undifferentiated Hs to MPa, mainly DMs to MPe

FIGURE 3: REGIONAL GEOLOGY
SOVEREIGN CREEK TALC PROSPECT
 WIM-TA Claim Group
 NTS 93A/13W SCALE 1:50,000



LEGEND

- uKa**, Phyllite, argillite, quartzite schist, minor greenstone
- MPau** ANTLER FORMATION serpentinite, gabbro
- MPR** RAMOS CREEK SUCCESSION quartzite, phyllite, slate, limestone
-  Foliation
-  Talc occurrence
-  Road
-  Legal Corner Post (LCP)

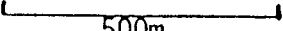
Scale

 500m

FIGURE 4: PROPERTY MAP
 GEOLOGY AND TALC OCCURRENCES

- 1) Dodo Creek talcose serpentized ultramafic
- 2) Creek 1 and Creek 2 platy talc float
- 3) Creek 3 platy talc and float
- 4) Swift River Forest Road talc-carbonate schist boulders.

Apart from the primary exploration target at Dodo Creek (described in Section 4.2), "platy" steatite occurrences at Kilometer 17.2 on the Swift River Forestry Road and in Creek 3, a small, intermittent tributary to Sovereign Creek which crosses the forestry road at 17 km are of particular interest. A small prospecting program of 16 hand dug pits at the former site has identified an area of approximately 3000 m² containing occurrences of talcose schist in either bedrock or large, angular boulders. At Creek 3, the writer observed an area approximately 50 m by 200 m mantled by overburden containing angular steatite cobbles. In both areas, the nature of the float suggests close proximity to the bedrock source.

750 metres southeast of the Dodo Creek talc showing, angular platy talc float occurs over 50 metre intervals in Creek 1 and Creek 2. Overburden appears shallow near Creek 2 and the angularity and consistent large size (typically 30-60 cm across) again indicating that the float is not far from its bedrock source. Creek 1 float is in an area of thicker overburden and is probably slightly further from its upstream source.

Creek 1 and 2 float boulders are distinctly different from the talc at Dodo Creek. Platy fine grained talc comprises 80-90 percent of the rock with the remainder being mostly chlorite. Pyrite and limonite are up to 5 percent by volume.

The alignment of the talc alteration zone indicates a probable west-northwest stratigraphic or structural control of the mineralization. Although the four occurrences may occur along the same structural zone or stratigraphic horizon, it is unlikely that they form a continuous deposit. Rather, it is expected that a series of deposits of unknown tonnage occurs, possibly elongated parallel or subparallel to regional stratigraphic and structural trends.

4. RESULTS

4.1 1986 Drilling Program

During June 1986, a small scale diamond drilling program designed to delineate the extent of the Dodo Creek talc showing was implemented. A total of 91 m (299 ft) of drilling was conducted at six sites, with all holes drilled at -90°.

Drilling was performed by H. Allan Drilling Ltd. using a backback portable J.K. Smit Winkie drill. The technique employs standard diamond drilling practice and provides EX (30 mm DIA) core. Because the core spins with the core barrel, softer sections of rock such as heavily faulted or fractured core is more susceptible to "washing out" under the pressure of the drill fluid circulation than would be expected with the more common wireline drilling methods.

As the Winkie drill does not perform well in overburden conditions, as many holes as possible were sited on or near surface bedrock exposures. In general, overburden thicknesses were found to be minimal on the right bank and northeast of Dodo Creek.

<u>Hole Number</u>	<u>Depth, m(ft)</u>	<u>Comments</u>
86-1	20.4 (67.0)	20 m talcose ultramafic intersected
86-2	9.8 (32.0)	Abandoned in overburden
86-3	22.6 (74.0)	19.5 m talcose ultramafic intersected
86-4	9.1 (30.0)	Abandoned in overburden
86-5	3.7 (12.0)	" " "
86-6	25.6 (84.0)	23.7 m talcose ultramafic intersected

The drill core was logged by the author (see Appendix B) and is currently stored at the residence of:

Mr. Arne Fardal
408 Fiege Road
Quesnel, B.C.
V2J 5C9

Drill holes were sampled at 10 to 15' (3 to 5 m) intervals that were considered to be representative of different sections within the sequence. Because of the nature of the EX core, sampling was conducted by selecting core segments of 2 to 4 cm in length at spacings of 30 cm (1 foot) over the sample interval. Samples are described in Table 3, Section 4.3.

4.2 Dodo Creek Deposit

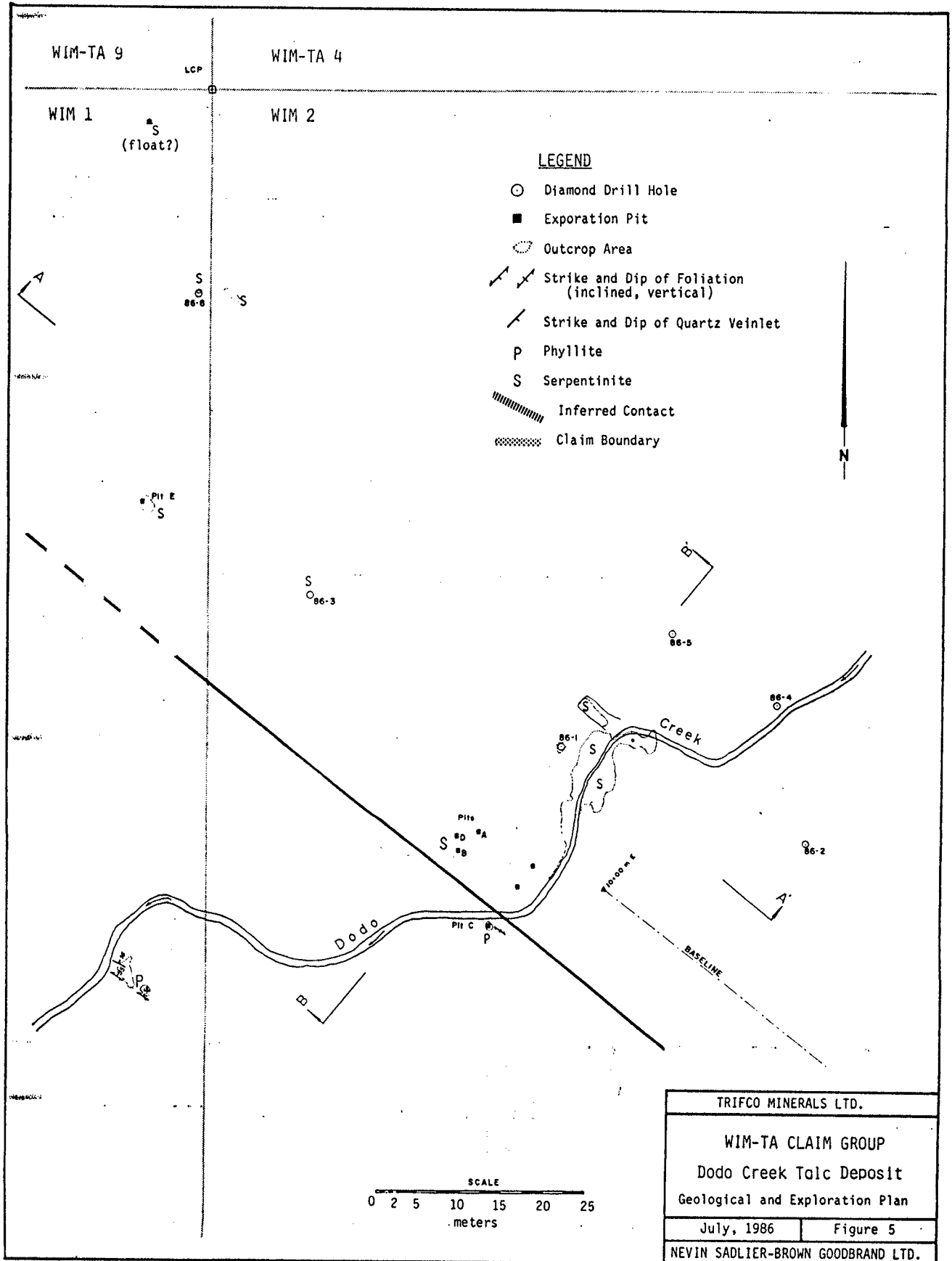
Talc showings at Dodo Creek consist of talcose serpentinite bedrock exposed for a distance of approximately 30 m along the creek, in numerous small hand-dug pits and trenches, and in three 1986 diamond drill holes (Figure 5). Talc occurs within a serpentinitized ultramafic intrusive in amounts ranging from 15 to 95%. Drilling, trenching and mapping on the deposit have indicated a strike length in excess of 75 m and a width at surface of at least 30 m. Further investigation in the vicinity of serpentinite float located north-northwest of "86-6" could extend the dimensions of the deposit substantially.

The ultramafic is bounded on the southwest by a medium grey-green dolomitic phyllite unit which, near the ultramafic, exhibits a strong foliation pattern striking 130° and dipping sub-vertically. Quartz veinlets and folia in phyllitic outcrop slightly further southwest of the contact maintain a similar strike while dipping 50 to 60° towards the northeast. Comparisons of petrographic analyses of material from Pits C and D indicate that the contact between talcose serpentinite and dolomitic phyllite is quite sharp.

As elsewhere on the property, it is presumed that the serpentinitized ultramafic conforms structurally to regional geologic trends and that it too will exhibit a strike of approximately 130° . The phyllite was not penetrated by drilling and because of limited surface expression, it is difficult to ascertain the contact attitude. However, for the purposes of reserve calculations, the 55° northeastward dip is assumed.

The northeastern contact of the ultramafic is completely obscured in the vicinity of Dodo Creek. Attempts to drill through overburden north and east of the main showings proved unsuccessful, with each of three holes abandoned in as much as 10 m of unconsolidated material. Talc discoveries northwest of the creek in float near the WIM-TA 9 legal corner post suggest the serpentinite zone may be substantially wider than current mapping would indicate. However, further investigation will be required before definitive contact attitudes are determined.

Talc occurs primarily as an alteration-replacement mineral of an original igneous host. Talc as colourless, randomly oriented flakes 0.02 mm to 0.5 mm in length with varying amounts of dolomite and lesser chlorite forms a fine-grained matrix to clots of antigorite flakes to 15 mm in length. Antigorite flakes are themselves commonly cut by a reticulated network of talc and chrysotile veinlets.



Two distinct grades of talcose alteration are present. Visual, petrographic and chemical analyses ranges of a lower grade, serpentinite rock indicate talc content between 15 and 40%. Typical exposures of this phase are located along the banks of Dodo Creek.

A substantially higher grade material is typified by intense talcose alteration ranging from 50 to 95%. This rock tends to be somewhat more schistose and was located at depths below 15 m in the drill holes.

The highest grade of talcose alteration is associated with an albite syenite intrusive, which was encountered in two of the three drill holes into bedrock (86-1 and 86-3). Although it is very indistinct the contact appears to form an angle between 30 and 45° to the core axis. Again, because of limited exposure, it is neither possible to ascertain an attitude of the intrusive nor to determine a clear relation between the two units. As talc grades exceeding 95% are encountered in the vicinity of the syenite, its presence is very significant.

4.3 Analysis and Grade Determination

Samples of talcose material from the Dodo Creek prospect were collected by the writer and analyzed by Chemex Labs Ltd. and Geotex Consultants Ltd. Geotex (Read, 1986) first conducted an X-Ray Diffraction analysis on selected samples in order to identify major mineral assemblages and in particular, to determine carbonate mineralogy not otherwise readily distinguishable by other techniques. Secondly, petrographic analyses of thin sections were performed to estimate mineralogical modes for each sample. Because of the small volume of the material used in x-ray diffraction and petrographic determinations, the results of a "Classical Whole Rock" analysis by Chemex were considered to be most representative of the sample. The chemical analyses were recast into weight and volume percents based on the assumption that talc, serpentine, dolomite and chlorite are the major rock forming minerals in the Dodo Creek ultramafic assemblage (Read, 1986). The results of the 1986 sampling are presented in Table 2, which is extracted from the Geotex report.

TABLE 2 COMPARISON BETWEEN MODES FROM THIN SECTION AND
MODES CALCULATED FROM CHEMICAL ANALYSES

Sample	TALC			SERPENTINE			DOLOMITE			CHLORITE		
	wt% c.	vol% c.	vol% o.	wt% c.	vol% c.	vol% o.	wt% c.	vol% c.	vol% o.	wt% c.	vol% c.	vol% o.
71601	40.5	41.0	-	22.2	23.4	-	36.2	34.5	-	1.1	1.1	-
71602	51.1	51.6	44.7	15.4	16.1	27.3	27.5	26.1	24.3	6.0	6.1	2.7
<u>71603</u>	49.1	49.0	96.7	22.2	23.0	0.0	13.6	12.8	0.0	15.1	15.2	3.0
71604	17.4	17.3	-	51.6	53.5	-	29.8	28.0	-	1.2	1.2	-
71605	43.9	43.9	23.0	30.6	31.7	67.4	17.4	16.3	8.7	8.1	8.1	0.0
71606	77.9	77.9	97.0	10.4	10.8	0.0	7.5	7.1	0.0	4.2	4.2	3.0
71607	0.0	0.0	-	77.2	78.8	-	22.0	20.4	-	0.8	0.8	-
71608	0.0	0.0	13.4	87.9	88.9	50.8	12.1	11.1	35.7	0.0	0.0	0.0
71609	36.0	36.0	72.3	31.3	32.5	4.3	23.2	21.8	21.3	9.5	9.6	2.0
71610	not an ultramafic rock											
71611	not an ultramafic rock											
71612	56.0	55.5	49.0	21.9	22.6	43.5	3.2	3.0	0.0	18.9	18.9	7.2
71613	7.9	7.8	52.0	68.3	70.0	47.0	23.1	21.5	0.0	0.7	0.7	0.0

wt% c. = weight % calculated vol% c. = volume % calculated vol% o. = volume % observed

71603 The rock analysis indicates a carbonate is present, X-ray diffraction shows calcite, but the thin section shows no carbonate.

71601, 71604, and 71607 were not thin sectioned or X-rayed.

Note: This method of recasting chemical analyses into constituent minerals is valid only if the minerals talc, serpentine, dolomite and chlorite are the dominant minerals present.

Variation in talc content within the ultramafic is clearly evident. Visual estimates of talc in drill cores (Appendix B) vary from 15 to 85% with grades generally increasing with depth. Inconsistencies between "calculated" and "observed" modes in Table 2 demonstrate the difficulties in correlating chemical analyses of a comparatively large sample (which represents up to 5 m of drill core) with petrographic determinations performed on one thin section. The chemical complexity and compositional heterogeneity of the ultramafic have complicated correlation between visual, petrographic and chemical analytical techniques. However, talc occurrence within the ultramafic is ubiquitous, and of all ultramafic rocks observed, none contained less than an estimated 15% talc. Read (1986) suggests "a large homogeneous sample should be thin sectioned in a few locations and the sample analysed so that a sample with a known mode can be compared against a chemical analysis recast into minerals present". While it would be considerably more expensive, it appears that beneficiation trials involving crushing and separation would provide the most definite talc grades.

For the purposes of reserve calculations, talc percentages have been derived by combining visual estimates, petrographic and x-ray determinations, and whole rock chemical analyses. While various other minerals such as dolomite and antigorite are common minor constituents of industrial talc concentrates, their contribution to talc reserves is not considered appropriate for this calculation.

Comparisons between 1986 results and several previous studies (NSBG, 1985; O.R.F., 1985) are reasonably consistent (Table 3). In particular, the similarities in chemical analyses between this and Ontario Research Foundation's report indicate that encouraging talc grades and quality of a bulk sample collected at Dodo Creek by the Trifaux in 1985 might reasonably be extrapolated throughout the remainder of the deposit explored to date. O.R.F. notes further that "most of the present-day talc products usually contain many other minerals such as tremolite, chlorite, dolomite, mica and magnetite" and that "filler grade talcs sold to the paper, plastics and rubber industries contain, at best, 90% talc". As such, the presence of the various mineral components in the Dodo Creek talc deposit should not detract from its value.

TABLE 3: Comparative Analyses of Major Oxide Components from Talc Samples of the WIM-TA Claim Group

Sample	Description	SiO ₂ %	Al ₂ O ₃ %	Fe ₂ O ₃ %	MgO %	CaO %	LOI %	Others* %	Estimated Talc %
NSBG, 1986									
71601	86-1, 12-27'	30.10	1.31	6.08	27.07	10.83	21.79	0.28	40
602	32-47'	36.10	2.65	6.22	27.82	8.22	17.64	0.76	50
603	52-65'	41.49	5.18	6.96	27.85	4.08	12.22	0.60	65
604	86-3, 20-35'	34.66	1.33	5.73	28.50	8.92	19.51	0.29	17
605	40-50'	41.29	2.50	6.77	28.19	5.22	13.09	0.39	44
606	50-65'	52.96	2.15	5.50	28.98	2.23	7.52	0.29	75
607	86-6, 15-30'	33.96	1.22	6.00	33.10	6.57	19.26	0.27	15
608	40-55'	36.86	0.88	6.62	34.70	3.61	16.44	0.21	20
609	70-84'	38.59	3.64	6.36	27.84	6.94	15.47	0.37	75
611	Pit C	57.45	6.53	4.23	11.66	6.23	11.14	2.58	-
612	Pit B	45.82	6.22	6.83	30.60	0.97	9.26	0.53	50
613	Pit E	32.94	1.20	7.16	29.25	6.92	19.78	0.33	50
O.R.F., 1985	Bulk "peridotite" sample	34.6	1.4	6.6	27.3	9.9	19.5	0.05	-
NSBG, 1985									
89331	grab sample, Dodo Ck								20
332	grab sample, Dodo CK								42
333	old drill core								24

*Note: Analyses for Na₂O, K₂O, TiO₂, P₂O₅ and MnO are included as "Others". No trace metals analysis was performed for the 1986 samples.

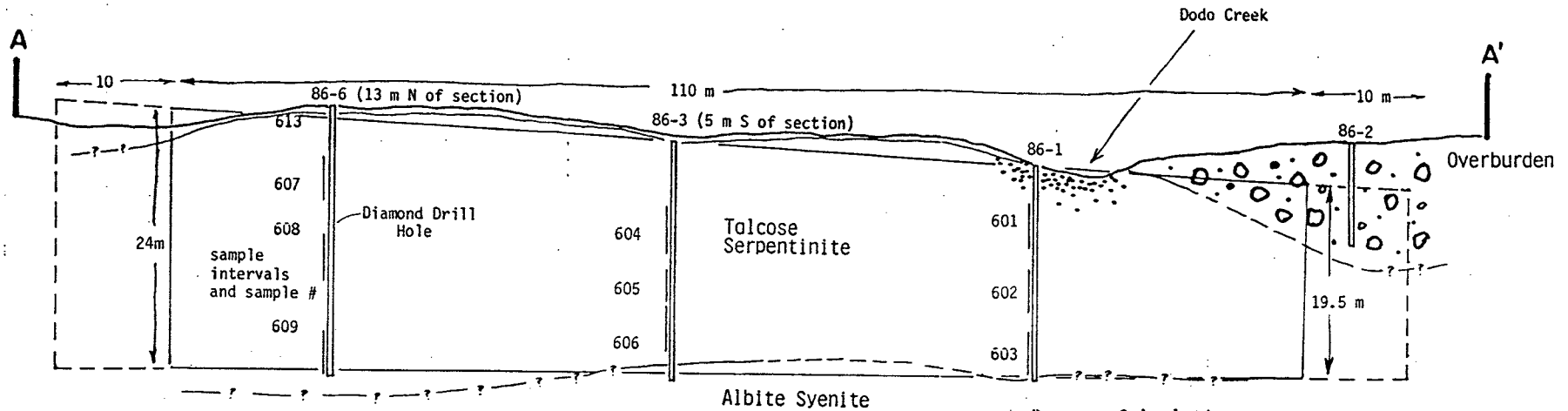
4.4 Reserve Calculation

The 1986 drilling program was designed partly to provide an early indication of the amount of talc in place at the Dodo Creek deposit. Three holes situated along the trend the ultramafic encountered talcose alteration of varying grades to depths exceeding 25 m. For the purposes of calculating reserves in the "Proven and Probable" category, the following criteria were followed:

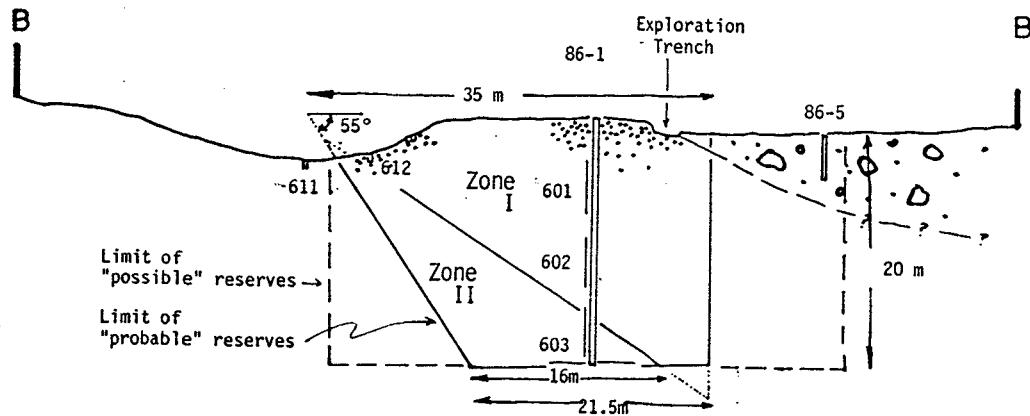
- 1) The contact between the talcose ultramafic and the phyllite unit is sharp, passing between Pits B and C on a strike of 130° .
- 2) The footwall (ultramafic-phyllite contact) dips at an angle of 55° NE while the "hanging" wall dips vertically.
- 3) The "known" occurrences of talcose alteration may reasonably be extended for 15 m along strike beyond mapped surface outcrops of the ultramafic (i.e. 15 m northwest of 86-6; 25 m southeast of 86-1).
- 4) A surface width of 35 m has been assumed. Outcrop exposure in Dodo Creek extends for 30 m perpendicular to strike northeastward from the ultramafic-phyllite contact before becoming obscured by overburden.
- 5) Two distinct grades of talc are present. The bulk of the deposit consists of material similar to the serpentized ultramafic exposed in Dodo Creek and intersected by the upper 15 m of the drill holes. Based on visual estimates, and petrographic and chemical analyses, an average grade of 35% talc is assigned to this portion of the deposit. A tabular high grade talc zone approximately 4 m true thickness appears to roughly conform to the footwall (southwest) contact of the deposit. Analyses of this material indicate talc grading between 50 and 85%; an average high grade estimate of 75% talc is selected as being representative of this zone.
- 6) An average specific gravity of 2.70 is assumed for the talcose material.

The configuration of the talc deposit for the ore reserve calculation is outlined in Figure 6. As the quality and grade of talc in "Zone II" appears substantially higher than that in "Zone I", calculations are made in two parts (Appendix C). Mining and marketing strategies could be strongly influenced by the presence of the high grade ore material.

SECTION A-A parallel to strike (Refer to Figure 5)



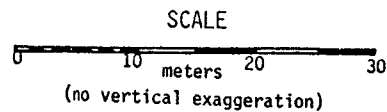
SECTION B-B perpendicular to strike



Reserve Calculations:

Proven & Probable	Zone I (@35% talc)	Zone II (@70% talc)	Total
Volume (m ³)	37 800	17 600	55 400
Tonnage (tonnes)	102 200	47 500	149 700
Potential Talc (tonnes)	35 800	33 300	69 100
Possible			
Volume (m ³)			117 000
Tonnage (tonnes)			316 000
+ Potential Talc (tonnes)			142 000

+ assuming an average grade of 45% over the cross section



TRIFCO MINERALS LTD.	
RESERVE CALCULATIONS	
Dodo Creek Talc Deposit	
, July 1986	Figure 6
NEVIN SADLIER-BROWN GOODBRAND LTD.	

5.0 CONCLUSION

5.1 Conclusions

Preliminary exploration drilling on Trifco Minerals Ltd.'s Dodo Creek talc deposit is very encouraging. Three drill holes stepped as far back as 70 m from known talc occurrences confirm that the longitudinal extent of a serpentinized ultramafic averaging 45% and locally containing up to 95% talc, is at least 110 m (360 ft). 316,000 tonnes of possible ore reserves including proven and probable reserves of at least 150 000 tonnes of talcose material grading an average of 45% are indicated by the recent drilling program.

Understanding of lithological and structural controls on talc occurrences is somewhat limited and further work at Dodo Creek is required to determine the configuration of talcose alteration in the serpentinized ultramafic. Information on the overall width and depth of the deposit will improve the proven and probable talc reserve figures. A better understanding of the size and shape of high grade zones and controls on mineralization are vital to an efficient development of the prospect.

In addition to the Dodo Creek deposit, talc occurrences at several other localities on the WIM-TA group should be delineated on surface and drilled. While it is not anticipated that the talcose ultramafic forms a continuous band across the property, the areal extent of talc showings indicate that continued exploration may lead to the development of further talc reserves on the property outside of the Dodo Creek area.

5.2 Recommendations

Continued development of Trifco's Dodo Creek deposit and exploration at other sites on the WIM-TA group is strongly recommended. A two phase approach is envisioned.

- 20 -

Phase I is intended primarily to establish road access to the various talc prospects on the property and to perform a trenching program in order to open up and detail the surface extent of known talc occurrences. It consists of construction of an access road to the upper Dodo Creek area, preferably from Kilometer 17 of the Swift River Road. This would permit exposure of the known talc prospects in road cuts and would allow for local stripping and trenching. In conjunction with the geological supervision, a magnetometer survey to trace stratigraphy and structure outward from known talc areas should be conducted along a control grid.

Subsequent trenching by backhoe or caterpillar tractor would be conducted at Dodo Creek and Swift River Road Kilometer 17.2 sites. Bulk samples for chemical and petrographic analysis, and for beneficiation trails would be collected at this time. Provisions should be made for a limited diamond drilling program.

Contingent upon results from Phase I, a second phase involving pilot production should be contemplated. At this time, access to the site(s) should have been upgraded. Phase II should include preparation of a pit design and mine plan, submission of various permit and licence applications (including a water use permit for Dodo Creek), and mining and milling equipment obtained. Phase II would be conducted with the intent of demonstrating the feasibility of talc production from the WIM-TA group. Given positive results, pilot production could readily be upgraded to a full scale operation.

5.3 Cost Estimate

Phase I

1. Road survey and engineering	\$ 2,000
2. Geological mapping and supervision	11,000
3. Accommodation, meals, transport	3,500
4. Road construction and trenching	5,000
5. Trenching, blasting	4,000
6. Diamond drilling	15,000
7. Bulk sample analyses	6,000
8. Reporting, administration, drafting	5,500
9. Contingency @ approx. 10%	<u>5,000</u>

Total Phase I \$ 57,000

- 21 -

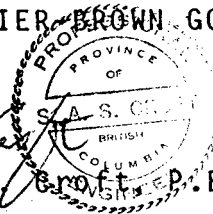
Phase II

1. Mine engineering study	\$ 2,500
2. Permitting, review, preliminary studies	3,500
3. Pilot plant, equipment purchase and lease	45,000
4. Mining services	35,000
5. Milling, transportation	25,000
6. Process design and refining	10,000
7. Road maintenance	5,000
8. General administration, mining and geological consulting	15,000
9. Contingency @ approx. 10%	15,000
Total Phase II	\$156,000

Note: No revenue figures have been incorporated in the above cost estimate.

Respectfully submitted,

NEVIN SADLIER-BROWN GOODBRAND


Stuart A.S. Croft, P.Eng.

Brian D. Fairbank, P.Eng.

August 26, 1986

REFERENCES

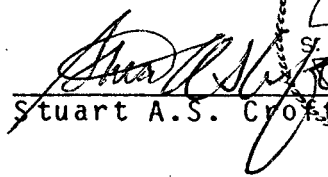
- Fairbank, B.D., 1985: Report on the WIM, WIM-TA, TOM CLAIM GROUP, Sovereign Creek Area. Report to Trifco Minerals Ltd. by Nevin Sadlier-Brown Goodbrand Ltd. (July 8, 1985), 13pp.
- O.R.F., 1985: Beneficiation and Evaluation of Two Talc-Bearing Bulk Samples from Quesnel, British Columbia. Report by Ontario Research Foundation to Trifco Minerals Ltd. (December 4, 1985).
- Read, P.B., 1986: Petrography and Analyses of Talc-Bearing Rocks, Sovereign Creek Talc Prospect, Cariboo Mining Division. Report by Geotex Consultants Ltd. commissioned for Trifco Minerals Ltd. by NSBG (July 16, 1986), 17pp.
- Struik, L.C., 1978: Bedrock Geology, Swift River, B.C.: Geological Survey of Canada, Open File 858.
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APPENDIX A
AUTHOR'S CERTIFICATE

CERTIFICATE AND STATEMENT OF QUALIFICATIONS

I, Stuart A.S. Croft, hereby certify that:

1. I am a consulting geological engineer residing at 1340 Inglewood Avenue, West Vancouver, B.C. V7T 1Y9.
2. I am employed as a consulting geological engineer by the firm of Nevin Sadlier-Brown Goodbrand Ltd., 401-134 Abbott Street, Vancouver, B.C. V6B 2K4.
3. I hold a B.A.Sc., in Geological Engineering (Geotechnical Option) from the University of British Columbia and have been practicing my profession since 1981.
4. I am a registered member of the Association of Professional Engineers of British Columbia (Geological).
5. During June 1986 I personally visited the WIM-TA claim group and examined and supervised the drilling and sampling program on the Dodo Creek prospect described in this report.
6. I hold no interest, direct or indirect, in the securities or properties of Trifco Minerals Ltd. nor do I expect to receive such interest.
7. I consent to the use by Trifco Minerals Ltd. of this report in a Statement of Material Facts or such other documents as may be required by the Vancouver Stock Exchange, the Superintendent of Brokers, Insurance and Real Estate of B.C. or similar regulatory authorities of the Province of British Columbia.


Stuart A.S. Croft, P. Eng.



August 26, 1986

CERTIFICATE OF QUALIFICATIONS

I, Brian D. Fairbank, hereby certify that:

1. My residence address is 320 East Windsor Road, North Vancouver, B.C., V7N 1K1
2. I am a consulting geologist and was employed with the firm of Nevin Sadlier-Brown Goodbrand Ltd., 401-134 Abbott Street, Vancouver, B.C., V6B 2K4 at the time of this report.
3. I hold a B.A.Sc. in Geological Engineering from the University of British Columbia. I have been practicing my profession since 1973, and I am a member of the Association of Professional Engineers (Geological) of the Province of British Columbia
4. I am a Fellow of the Geological Association of Canada and a member of the Canadian Institute of Mining and Metallurgy.
5. I have examined the WIM-TA Claim Group and reviewed the data thereon personally.
6. I hold no direct or indirect beneficial interest in the above properties nor in the securities of Trifco Minerals Ltd.
7. I consent to the use by Trifco Minerals Ltd. of this report in any such documents as may be required by the Vancouver Stock Exchange, the Superintendent of Brokers, Insurance and Real Estate of B.C.; or similar regulatory authorities in the Province of British Columbia.



B. D. Fairbank, P.Eng.

August 26, 1986

APPENDIX B
DIAMOND DRILL LOGS

NEVIN SADLIER-BROWN GOODBRAND LTD.

DIAMOND DRILL LOG SHEET

HOLE 86-1

SHEET 1 OF 2

DRILLING LOG					GRAPHIC LOG										GEOLOGIC LOG								
FROM	TO	%	ROD	DRILLING COND.	ALTERATION	PRECIPITATES	ESTIMATED	LITHOLOGY STRUCTURE	ALTERATION	PRECIPITATES													
0	5			Core very broken though fracturing is only moderate				15	SERPENTINIZED ULTRAMAFIC Mottled white and dark green to black sub-angular grains of antigorite, carbonate (dolomite) -fizzes in cold HCl when powdered. Grains are roughly equant ranging in size from 1 to 3mm and have a micro-brecciated appearance, though rock is not fragmental. Chlorite is present interstitially to grains. Rock has agglomeratic appearance with small (1 to 3cm) subrounded pebbles supported by a mullitic breccia fragments. Locally, small pods of recrystallized calcite are present. Fragments within core become larger with depth though micro-brecciation of individual clasts becomes more prevalent. Fabric in core shows no preferred orientation.	Talc occurs as a partial replacement of carbonates and very finely disseminated among mafics (primarily antigorite). Resinous white to pale green blebs are common within carbonate grains and in association with more massive antigorite. Talc is also common in association with dolomite veins.	Sulphides, primarily pyrite, are commonly smeared on fracture faces and locally, are disseminated amongst mafics (to 2% in some sections)												
Um	1.5m							15															
5	10							15															
1.5m	3.0m							15															
10	15							15															
3.0m	4.6m							15															
15	20							18															
4.6m	6.1m							18															
20	25							18															
6.1m	7.6m							18															
25	30						18																
7.6m	9.1m						18																
30	35						25																
9.1m	10.7m						25																
35	40						25																
10.7m	12.1m						25																

NEVIN SADLIER-BROWN GOODBRAND LTD.

DIAMOND DRILL LOG SHEET

HOLE 86-1

SHEET 2 OF 2

DRILLING LOG					GRAPHIC LOG										GEOLOGIC LOG							
FROM	TO	%	ROD	DRILLING COND.	ALTERATION	PRECIPITATES	ESTIMATED	LITHOLOGY STRUCTURE	ALTERATION	PRECIPITATES												
40	45							35	Massive TALC-SERPENTINITE Dull pale green "soapstone" with strong relic fabric from ultramafite. Core is moderately sheared and broken along foliations cutting core at 30 to 60° to core axis. Talcosic alteration of serpentinite is apparent as some remnant antigorite causes darker green mottling of core.													
12.1m	13.7m							35														
45	50							40														
13.7m	15.2m							40														
50	55							45														
15.2m	16.6m							45														
55	60							45														
16.6m	18.3m							45														
60	65							50														
18.3m	19.6m							50														
65	67			67.0 END OF HOLE				5	66.0-7 ALBITE SYENITE gradational contact causes strong silicification of talcosic alteration over 65 to 66.5" Equigranular feldspar with minor mafics, themselves altered to chlorite. Approximate angle of intrusive is 45° to core axis. Contact is ragged and indistinct.													
19.6m	20.4m							5														

MEVIN SADLER-BROWN GOODBRAND LTD. GRAPHIC LOG ALTERATION PRECIPITATES DIAMOND DRILL LOG SHEET HOLE 86-3 SHEET 1 OF 2

DRILLING LOG				LITHOLOGY STRUCTURE										GEOLOGIC LOG		
FROM	TO	%	ROD	DRILLING COND	ALTERATION	PRECIPITATES	ALTERATION	PRECIPITATES	ALTERATION	PRECIPITATES	ALTERATION	PRECIPITATES	ALTERATION	PRECIPITATES	ALTERATION	PRECIPITATES
0	5			OVERBURDEN: Cased to 5'												
0m	1.5m															
5	10	95														
1.5m	3.0m															
10	15	60														
3.0m	4.6m															
15	20	60														
4.6m	6.1m															
20	25	45														
6.1m	7.6m															
25	30	90														
7.6m	9.1m															
30	35	75		Recovery fair: Core is rubby. Drill return is milky suggest- ing softer minerals (i.e. Talc) is washing out.												
9.1m	10.7m															
35	40	65														
10.7m	12.1m															

LITHOLOGY STRUCTURE: SERPENTINIZED ULTRAMAFIC: Sub-angular clasts of dark green to black antigorite, chlorite 1 to 10mm in length within a massive light grey supporting matrix of primarily carbonate (dolomite, magnesite) and minor talc. Pebbles to 3cm diameter within the pseudobreccia are common. Some siderite in 5mm crystals noted, particularly nearer surface. Structural fabric is absent.

GEOLOGIC LOG: Alteration: Talcose alteration is weak to moderate with talc occurring in veinlets within carbonate and as very fine disseminations throughout some mafics. Precipitates: Some quartz veining apparent. Chrysotile(?) forms elongate (1 to 3mm) prismatic crystals similar to slicken sides on some fracture faces.

MEVIN SADLER-BROWN GOODBRAND LTD. GRAPHIC LOG ALTERATION PRECIPITATES DIAMOND DRILL LOG SHEET HOLE 86-3 SHEET 2 OF 2

DRILLING LOG				LITHOLOGY STRUCTURE										GEOLOGIC LOG		
FROM	TO	%	ROD	DRILLING COND	ALTERATION	PRECIPITATES	ALTERATION	PRECIPITATES	ALTERATION	PRECIPITATES	ALTERATION	PRECIPITATES	ALTERATION	PRECIPITATES	ALTERATION	PRECIPITATES
40	45	50														
12.1m	13.7m															
45	50	35														
13.7m	15.2m															
50	55	75														
15.2m	16.6m															
55	60	75														
16.6m	18.3m															
60	65	85														
18.3m	19.8m															
65	70	95		Coring well. Extremely hard; core polished												
19.8m	21.3m															
70	75	98		75.0 END OF HOLE.												
21.3m	22.9m															

LITHOLOGY STRUCTURE: 35 Groundmass becomes more chloritic, contains fewer carbonates. Antigorite clasts contain thin (0.5mm) bands of chrysotile. 40 49.0-69.0 Texture of ULTRAMAFIC becomes less distinct, grading to massive grey-green talc-antigorite by 52', mottled locally by indistinct dark green to black patches of chlorite(?) 1 to 3mm in diameter. Little remnant texture remains though weak foliation is swirled throughout. Color becomes darkened towards 49', closer to contact, and rock becomes slightly harder (though still sectile). Sections of pure talc-antigorite reflect light as if translucent; is resinous like chrysotile though massive. 69.0-7 Light grey brown ALBITE SYENITE. Equant feldspar grains 0.5 to 1.0mm in diameter form a groundmass containing minor amounts of a light brown mineral (alteration product of biotite?) and chlorite veinlets. Texture suggests igneous origins. Upper contact is clear though ragged, grading over 30cm and having a broken appearance. Contact attitude 30°(?) to core axis though indistinct.

GEOLOGIC LOG: Alteration: Veinlets with greasy white to pale apple green massive talc. Veinlets 1-3mm width at 10cm intervals. Orientation is random. Precipitates: Sulphides are very weak. Strongly silicified throughout section. Biotite pseudomorphs after hornblende(?) are themselves strongly altered. Some sub-vertical veinlets are comprised primarily of chlorite with very minor talc. Silicification results in a sugary appearance locally.

APPENDIX C
DETAILS OF RESERVE CALCULATIONS

Details of Reserve Calculations

In reference to Figure 6:

The "Talcose Serpentinite" shown in Section A-A' is an elongate prism with an average height of

$$(24\text{m} + 19.5\text{m})/2 = 21.8\text{m} \quad \text{SAY } 22\text{m}$$

Remove 2m from the average height to account for overburden, gulleys, etc. Therefore,

$$\text{AVERAGE HEIGHT OF PRISM} = 20\text{m}$$

"PROVEN AND PROBABLE" reserves have been calculated in two parts, ZONE I (grading 35% talc) and ZONE II (grading 70% talc). ZONE II has a triangular cross-section; ZONE I is a truncated triangle. The volume of each prism was obtained by multiplying cross-sectional area by length as follows:

ZONE I

ZONE II

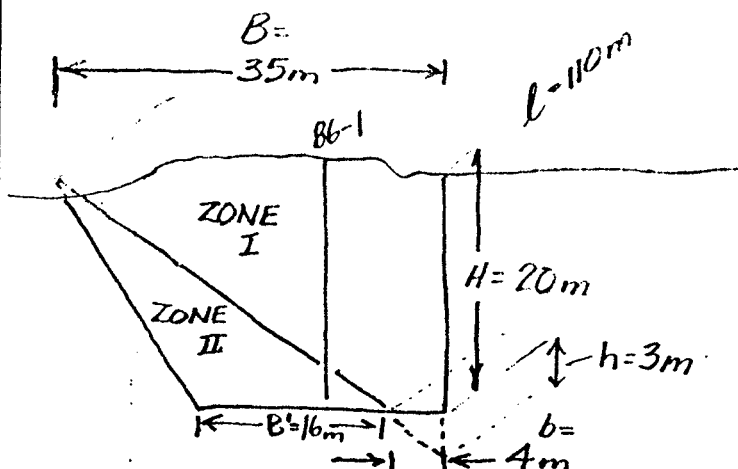
$$\begin{aligned} \text{VOLUME: } V_I &= \frac{1}{2} [(B \times H) - (b \times h)] \times L \\ &= \frac{1}{2} [(35\text{m} \times 20\text{m}) - (4\text{m} \times 3\text{m})] \times 110\text{m} \\ &= 37840 \text{ m}^3 \end{aligned}$$

$$\begin{aligned} V_{II} &= \frac{1}{2} [B' \times H] \times L \\ &= \frac{1}{2} [(16\text{m} \times 20\text{m})] \times 110\text{m} \\ &= 17600 \text{ m}^3 \end{aligned}$$

TONNAGE: $T = \text{VOLUME} \times \text{SPECIFIC GRAVITY} (= 2.70)$

$$\begin{aligned} T_I &= 37840 \text{ m}^3 \left(2.70 \frac{\text{Tonnes}}{\text{m}^3} \right) \\ &= 102168 \text{ Tonnes} \end{aligned}$$

$$\begin{aligned} T_{II} &= 17600 \text{ m}^3 \left(2.70 \frac{\text{Tonnes}}{\text{m}^3} \right) \\ &= 47520 \text{ Tonnes} \end{aligned}$$



POTENTIAL TALC:

$$P = \text{Tonnage} \times \text{estimated grade}$$

$$P_I = 102\,168 \text{ Tonnes (35\% talc)} \quad P_{II} = 47\,520 \text{ Tonnes (70\%)}$$

$$= 35\,759 \text{ Tonnes talc}$$

$$= 33\,264 \text{ Tonnes talc}$$

TOTAL

TONNAGE	POTENTIAL TALC
149 700 Tonnes	69 100 tonnes talc

"PROVEN AND
PROBABLE
RESERVES"

AVERAGE OVERALL GRADE ESTIMATE:

$$\frac{69\,023 \text{ Tonnes talc}}{149\,688 \text{ Tonnes "ore"}} = 46.1\% \text{ Talc}$$

"POSSIBLE" reserves are calculated by assigning an average overall grade estimate of 45% talc to a rectangular prism of rock as follows:

VOLUME:

$$V = l \times w \times h$$

$$= (130 \text{ m}) \times (45 \text{ m}) \times (20 \text{ m})$$

$$= 117\,000 \text{ m}^3$$

TONNAGE:

$$T = V \times \text{SPECIFIC GRAVITY}$$

$$= 117\,000 \text{ m}^3 (2.70 \text{ tonnes/m}^3)$$

$$= 315\,900 \text{ tonnes}$$

POTENTIAL TALC

$$T \times \text{grade} = 315\,900 \text{ tonnes (45\%)} = 142\,160 \text{ tonnes}$$

TONNAGE	POTENTIAL TALC
316 000 tonnes	142 000 tonnes talc

POSSIBLE
RESERVES