

TRIFCO MINERALS LTD.

Information Memorandum

Prepared by

Rene Trifaux

President of Trifco Minerals Ltd.

FILMED

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,729

PART 2 OF 3

TRIFCO MINERALS LTD. - INFORMATION MEMORANDUM

TABLE OF CONTENTS

Basic Data	Page	1 - 2
Talc	Page	3
History of the Company	Page	4
Talc - Properties	Page	5 - 6
Grades & Prices		7
Report by O.R.F.		8 - 9
Consumption & Trade in Canada	Page	10
Talc usage in Canada	Page	11
Availability of Ores	Page	12-13
B.C. Market for Talc - Trifco Minerals Ltd.	Page	14-16
Quality of Ores	Page	17
Outlook	Page	18-20
Commercial use of Talc - Specifications	Page	21
B.C. Talc requirements & Market Share Assumptions	Page	21-22
Cash flow for a 25 ton mill	Page	23
Capital Expenditure	Page	24-29
Miscellaneous Plans	Page	30-31
Strength of the Venture	Page	32
References	Page	33
Statement of Qualifications	Page	34

BASIC DATA

Trifco Minerals Ltd. was incorporated November 1, 1984.
In 1985 we submitted a memorandum to prospective share holders.

Principal officers - Dan Ferrone	Director
Kelvin Pruenster	"
Thomas Trifaux	"
James Lewis	"
R. Trifaux	" (President)

Dan Ferrone is in business with his father-in-law, selling boats, with success.

Kevin Pruenster is finishing a business administration course in California.

James Lewis is a corporate lawyer in Mississauga.

Thomas Trifaux has been involved as a manager of a sporting goods store, executing sales, inventories, returns, etc.

R. Trifaux worked as a manager of a group of mines in Africa. Gold, Cassiterite, Wolframite, Tantalite, Columbo-Tantalite, Beryllium. Extensive experience in survey, prospecting, mining, calculation of reserves, reports. 1936-1953

Experience in utilization of modern machinery for building hydraulic works (dam diversions etc.)

In Canada, worked with the firm of J.A Lamb, Federal land surveyor, Professional Engineer in Calgary. Did the calculations of the plan for subdivisions in the city, expropriations of the St. Mary Creek Development for the PFRA. 1953-1954

City Hall - 3 years in the planning development, established the maps for the extension of the city from Banff to Calgary, Red Deer to Calgary, Chestermere Lake to Calgary, etc. 1954-1957

Sandwell Co. Ltd. Vancouver. Did the civil engineering inspection of the Georgia generating station in Chemainus and the overview of the accounting and contract. 1957-spring 1958

BC Hydro 3 years as a cost accountant and draftsman in the contract department. 1958-1960

Calgary Power - Montreal Engineering Ltd. on the Brazeau dam - 4 years. Worked in the contract division in Montreal for 2 years. Sundance steam plant - three years. 1961-1970

Syncrude Canada Ltd. - cost engineer - 2 years. 1974-1976

BASIC DATA (continued)

Bank of Montreal

Lougheed Mall
9855 Austin Avenue
Burnaby, B.C. V3J 1N4

Branch Manager - Ron N. Smith BA,
Telephone 520-5327

Legal Adviser

Brian Abraham, P. Eng.,
Barrister and Solicitor
Lawrence and Shaw
2500 Three Bentall Centre
P.O. Box 49200
595 Burrard Street
Vancouver, Canada V7X 1L1
phone : 689-9111

Accountants

Carlyle Shepperd & Co.
Leo Vantongerren
204-1070 Ridgeway Ave.
Coquitlam, British Columbia
V3J 1S7
phone : 931-3585

Incorporation authorized November 1, 1984.

Type of instrument: 10,000,000 common shares

Stock issued	5,985,052 shares
Remaining shares	4,014,958 shares

Trifco Minerals Ltd. is engaged in the exploration and development of base and precious metals and industrial minerals. Talcs, Calcium carbonates, Graphite, Wollastonite, Micas, Dolomite, (Muscovite and Phlogopite) are part of the discoveries on the Trifco claims.

TALC

Talc is derived from the alteration of magnesian rocks in metamorphic environment. It occurs as veinlets, tabular bodies and irregular masses.

TALC is valued for the following properties:

Extreme whiteness, smoothness, high fusion point, low thermal and electrical conductivity and chemical inertness

Talc is produced in various grades classified by end-use; paint, paper, ceramic, plastics, pharmaceutical, cosmetics etc.

In 1958 Trifco Minerals Ltd. acquired 55 claims from Rene Trifaux, Prospector from Coquitlam, B.C. Of the claims the Wim, Wim-Ta and Arne claims contained 2 prospects of talc which had been identified in 1971 by a small program of diamond drilling by R. Trifaux himself.

HISTORY OF THE COMPANY

Trifco Minerals Ltd. has been incorporated since November 7, 1984. In 1985, Trifco Minerals Ltd consulted Nevin, Sadlier-Brown, Goodbrand Ltd. geologists, in Vancouver, to have an inspection of its talc property and have a report on their works. (Report no 1)

In 1986, Trifco Minerals Ltd. again consulted the same firm of geologists, to supervise a program of diamond drilling to be done on the peridotite talc on the same property. (Report no 2)

The 2 reports have been very successful and the recommendation of the geologists are proving the value and the extent of the presence of talcs on Trifco Minerals Ltd. property.

In 1985, Trifco Minerals Ltd. sent 200 pounds of talc samples from the peridotite and the platy talcs asking for their beneficiation by the Ontario Research Foundation. The scientists of the O.R.F. have demonstrated in their report, that Trifco Minerals Ltd has talc products. (see results in the appendices)

Also, in 1985, the O.R.F. analyzed 6 rock samples submitted to them by Trifco Minerals Ltd. - (see results in appendices).

In 1985, a marketing survey for the needs of talc in the paper industry was established by the company with very positive results.

With the information acquired in the in the Vancouver library on the pulp and paper products of each mill in the province and calculating a use of 7.5 pounds of talc per ton, Trifco Minerals Ltd. came to the indication of the needs of the Province in talc, in the pulp and paper industries.

TALC PROPERTIES

The July 1985, a geological Report from B. Fairbank, P.Eng., (Nevin Sadlier-Brown, Goodbrand), consultants in Vancouver established the following:

1. Claims: location, access
 2. Geology.
 3. Talc occurrences - 2 modes, one peridotite talc, one platy talc.
 4. Recommendations
 5. Showed the property as a potential source of Talc for domestic markets and its presence on a 1Km trend.
 6. Showed the presence of Platy talc in creek 1 and 2 and the float found in creek 2 is not far from its source.
- Also the geologist mentioned that the boulders with platy talc are fine grained and that 80-90% of the rocks are talc.

Vancouver Petrographics Ltd. confirmed the presence of the talc deposits in samples:

- no 89332A - 42% talc
38% autigorite (which is also talc)
n?
- no 89334A - 85% to 90% talc
15% chlorite
- no 89333A - 85% talc
13% carbonate (dolomite)

The August 1986 geological and diamond drilling report, from S.A.S. Croft, P. Eng., (Nevin, Sadlier-Brown, Goodbrand, consultants in Vancouver) established the following:

1. Property description, access.
2. Exploration history.
3. Geology.
4. Talc occurrences
5. Drilling Program
6. Do-Do creek deposit.
7. Analyses and grade determination
8. Reserve Calculation

In his summary he described that the exploration conducted by Trifco Minerals Ltd. on the claims, identified a zone of strong talc mineralization. 91m of diamond drilling in 6 holes. The identification of a zone at least 110 m in length, 35 m in width at the surface and 20 to 25m deep containing talc grades from 20% to as high as 95%. Proven and probable reserves of 150,000 tons of material grade with an average of 45% talc.

TALC PROPERTIES (continued)

He also mentioned several unexplored talc occurrences. (creeks 1,2,3) are present on the property with good potential to develop further talc reserves. A boulder, present on the Swift River forestry road has 3.50m in length, 2.50m in width, and 1.00m in thickness.

	2	
or 3.50	8.75 m	
x 2.50	x 1 m	
-----	-----	
17.50	8.75 m ³ x 3 = 2,525 Kgrs or 25 tons of talc	
x 70	and is close to the deposit in	
-----	place	
8.75 m ²	3 is the specific gravity	

Continued exploration is recommended and Trifco Minerals Ltd. will establish further reserves in 1987. He strongly recommended the continued development of the deposits. The author of the report, observed at creek 3 an area of 1000 m² containing steatite cobbles - the nature of the float suggests close proximity to the bedrock source. A ton of steatite sells for \$1,000 Cdn. today.

TALC GRADES AND PRICES (US \$)

Medium grade talc	\$ 35 to \$70 per ton .
High grade talc	\$ 95 to \$160 per ton
Higly beneficiated talc	\$ 180 to \$250 per ton
Steatite blocks	\$1000 per ton

Prices are expected to increase between 2 and 8% averaging 5% for the full year of 1986. Source: Mr. Prudhomme, Mineral Policy Sector, Canada. List prices and actual prices differ as negotiations occur between producers and consumers.

Trifco Minerals Ltd. possess and is able to produce all the grades of talc mentioned above. They are present on the Trifco properties. Steatite occurs in the Do-Do creek which has been drilled, and in the areas not drilled as yet and in creek 3 as mentioned by S. Croft in his report.

New markets, innovative products and increased consumption of manufactured goods should benefit the talc industry, especially in plastics, ceramics and paper making sectors.

Trifco Minerals Ltd. possess besides talc, syenites, clays, calcium carbonate, which can also be used in paints, in plastics, in paper, but talc remains the primary pitch control agent in the pulp and paper industry.

REPORT ON TALCS BY THE ONTARIO RESEARCH FOUNDATION

Ball mill time of 120 minutes for each type of talc. This Ball mill time would prepare a product approximately 80% finer than 325 mesh (44 μ m) in size particle. This particle size would conform to commercial talc milling practice. The talc would be sufficiently liberated with 80% of the material finer than 200 mesh.

Product evaluation

The products from the 2 talc-bearing samples were evaluated and compared to specifications for a commercially available product using standard tests.

Tests

Platy talc material reduces at a faster rate than the peridotite material. Consequently the peridotite material required a 60 minute grind, while the platy talc required a 30 minutes grind only. The particle size distribution of the peridotite product is very similar to the Beaverwhite 200 size distributed on the market today.

The brightness of the 2 grind Talc concentrates is higher than other commercial samples at this stage of beneficiation. Some commercial talc may have a brightness as low as 60% at this stage. Also the brightness may not affect severely the quality of paper if used as pitch control. The low oil absorption for the peridotite indicates that a lower amount of organic material is required to completely wet each mineral grain. This indicates that the peridotite product is more hydrophobic than the commercial product.

This is a desirable quality for filters in the polymer industry (plastics).

The density and PH for both the Quesnel Talc concentrates were found to be similar to the commercial Beaverwhite 200 product.

REPORT ON TALCS BY THE ONTARIO RESEARCH FOUNDATION - (continued)Comparison of Product Quality

Particle size distribution Property % (μ)	Beaverwhite	Peridotite	Platy
74 micros	99.6-00.8	100	98
44	96	100	90
20	90	86	66
10	68	63	44
5	34	37	23
2	15	14	8
1	6	6	4
0.5	1	2	1
Medium size (μ)	7.5	6.9	12
Brightness	87	78.5	80.1
Oil absorption	28	(20 (47	(16 (38
PH	9	9	9.1
Specific Gravity	2.8	2.6	2.7

Brightness

The samples beneficiated came from weathered (oxidation) environment. No drilling was done when the samples were taken and the surface of the deposit is of course weathered.

CONSUMPTION AND TRADE IN CANADA

The value of shipments of Talc increased by 7% in 1985. The average unit value of Talc increased by 9.4%. Increased tonnages and values are the result of major expansion programs by all Canadian producers during 1985 and this should continue in 1986. Mr. Prudhomme, Mineral Policy Sector, Energy, Mines and Resources, Ottawa. Telephone (613) 995-9466.

For 1984, the value of imports of crude Talc rose by 9.5%, on a nine month basis. In 1985, imports of Talc increased by 11.5% in terms of tonnage and by 23% in terms of value in current dollars.

The unit value of imports increased by 8%, up to nearly \$209 per ton.

The U.S. accounts for 99% of Canadian imports. British Columbia imports 23% of the imports of the U.S., Alberta 7%, Ontario 40%, Quebec 22%. Canadian Talc is exported to Europe, Japan and the States.

Prices

They vary according to quality, method of processing, specifications and transportation costs. In 1985, Canadian prices ranged from \$35 - \$70 per ton for medium grade Talc, \$95- \$160 per ton for high grade Talc, \$180-\$250 per ton for highly beneficiated Talc and \$1,000 a ton for Steatite Blocks. In 1985, prices increased by an average of 5%. They will be the same in 1986 but prices vary between producers and consumers.

Note: the micronized Talc in the States cost \$220 per ton in 1985.

\$22 x 1.35(exchange rate) = \$297.00 cdn. F.O.B. plant
in the States

Source: Engineering and Mining Journal

TALC USAGE IN CANADA

The pulp and paper industries alone, are represented by 25 mills in our Province, and 5 mills in Northern Alberta. One new mill has been approved for construction in Quesnel (200 million dollars).

One new mill has been proposed for the region of Squamish to be constructed by Matkin Company Ltd. of Calgary. Bakertalc in Quebec - 10,000 tons per year to be used in the pulp and paper industries, a similar tonnage used as industrial filler in paints and plastic.

Luzcan in Quebec produces ground talc materials containing 70% talc, used as a filler in joint cement and auto-body compounds, as a dusting agent in asphalt roofing shingles, and in rubber production. Canada Talc produces talc to be suitable for low grade fillers, also products for paints, plastic, paper and floor covering.

In British Columbia we will produce talc for the pulp and paper industries, for paints, for plastic materials, and for ceramics. The new developments in the ceramic engines for cars and for the plastic car already produced in China, and for the upholstery already in use in today's new cars.

In plastic, talc improves dimensional stability, chemical and heat resistance, impact and tensile strength, electrical and insulation properties. It is used in thermo-plastics and in thermosets, mainly in polypropylene, nylon and polyesters.

Pharmaceuticals and cosmetics are using high purity talc, relying on its softness, hydrophobic property and chemical inertness.

AVAILABILITY OF ORES

As demonstrated in this information, Trifco Minerals Ltd. possess 2 types of Talc, the Peridotite and the Platy. The peridotite is used in the pulp and paper, cosmetic, paints, industries and other. The Platy talc is used in the plastic industry and also in paints and paper.

The company completed the diamond drilling of a part of the Peridotite talc where the geologists calculated 150,000 tons of reserves in June 1986. Consulting firm Nevin, Sadlier-Brown, Goodbrand Ltd., Vancouver, B.C. The 150,000 tons of talc calculated at a conservative cost of \$250 per ton, gives us 150,000T x \$250 = \$37.5 million in assets. (Talc in place on Trifco Minerals Ltd. deposit)

The drilling of the Platy talc will take place in 1987, in creeks 1,2 and 3 east of the peridotite talc.

The total distance of the talc beds is seen on a distance of more than 1000m (3000 feet) and the width to date is 35m.

Trifco Minerals Ltd. intends to install a pilot plant as soon as possible at the approximate cost of \$1,000,000 Cdn. including warehousing. Cash flow at 25 tons per day is shown in the following summary.

From the 2 reports from the geologists of Nevin, Sadlier-Brown and Goodbrand.

Trifco Minerals Ltd. possess 3 types of talc, the peridotite, the platy and the steatite. The company's 1986 completion of the diamond drilling established 150,000 tons of talc and by taking in consideration the peridotite and the platy talc at an average of \$250 (Cdn) per ton, Trifco Minerals Ltd. has a total asset in place of 150,000 x \$250 = \$37.5 million dollars (as stated above).

We arrived at \$250/ton as follows:

		Cdn
Medium grade	\$70 US per ton x 1.36(exchange rate)	\$ 92.20
High grade	\$60 US per ton x 1.36 =	217.60
Highly beneficiated	\$250 US per ton x 1.36 =	340.00

		\$ 652.80
Steatite - say	\$350 per ton x 1.36	476.00

	TOTAL	\$1,128.80

Average price \$1,128 - 4 = \$281 per ton. Our calculation of assets is based on \$250 per ton only.

AVAILABILITY OF ORES (continued)

Trifco Minerals Ltd. intends to produce 10,000 tons of talc per annum. Projected this annual production for the calculation of availability of ore with the reserves the company has with peridotite talc alone it gives:

$$150,000 - 10,000 = 15 \text{ years production.}$$

All the talc mines, possess extensive beds of talc ores. All the mines opened at the end of the last century(1880,1890) are still working today in Ontario, in France and in Italy.

Creek no 1, creek no 2 and creek no 3, have extensive showings of talc in the gravels.

The distance between the Do-Do creek and creek no 1 is 400m

The distance between creek no 1 and creek no 2 is 200m

The distance between creek no 2 and creek no 3 is 300m

Total is 900m

But the talc showings in Creek no 3 are extensive on the two banks of the creek. It means that the width of the body established by the geologists as 35m is much wider on Creek no 3 than the one of the Do-Do creek (or 35m).

SIZE OF TRIFCO MINERALS LTD. MARKET FOR TALC

As you know A. Fardal contacted the Paper Mills in Quesnel, Prince George and MacKenzie to have marketing information. He was quite successful and we know the markets of the North of B.C. plus the quantity of talc in loading which is 7# per ton. With this information and the ones I possessed I was able to calculate quite precisely our Talc market.

Trifco Minerals Ltd. did enquiries about the needs and marketing of talc in British Columbia. It contacted the mills in Prince George, Quesnel, Mackenzie, the lower mainland. The needs of talc for pitch control is from 10 to 12 # per ton.

We have the list of all the pulp and paper mills of the province with individual productions and we calculated the tons of talc needed per year in the pulp and paper industry and which came to 22,123 tons per year.

Some mills are not running at 100% or are not using talc with the same capacity, so the tonnage is reduced to 75% of full capacity to 22,123 tons x 0.75 = 16,592 tons per year.

Until the late 1970's the North American filler and extender market was virtually controlled by the U.S. suppliers. During the past 5 years, Canadian suppliers of Talc, Calcium Carbonate, Micas and others have become more aggressive. We have such commodities in our province and we can become an exporter of them, South of the border and West.

TRIFCO MINERALS LTD. MARKET FOR TALC - (continued)

Mills :	Brief descriptions.	:Paper	:Tons
:	Names of Companies, cities etc.	:ton/day	:Talc/yr
<u>ALBERTA</u>			
1-	Calgary, Alberta. Iko Industries. Paper Board	45	50T
2-	Edmonton. Building Products of Canada Ltd.	90	100T
3-	Grande-Prairie, Alberta. Procter & Gamble Cellulose Ltd.	300	315T
4-	Hinton-St Regis, Alberta Ltd.	514	530T
<u>BRITISH COLUMBIA</u>			
5-	Burnaby: Belkin Paper Board.	500	525T
6-	Campbell River. Crown Forest Ind. Ltd.	1200	1260T
7-	Castlegar. B.C. Timber Ltd.	535	560T
8-	Cranbrook. Crestbrook Forest Industries Ltd.	475	520T
9-	Crofton. B.C. Forest Products.	1560	1638T
10-	Gold River. Thasis Co. Ltd.	1270	1300T
11-	Kamloops. Weyerhaeuser Canada Ltd.	1200	1260T
12-	Kitimat. Eurocan Pulp & Paper Co. Ltd.	1010	1060T
13-	MacKenzie. B.C. Forest Products.	545	570T
14-	MacKenzie. Finlay Forest Products.	450	500T
15-	Nanaimo. McMillan & Bloedel.	800	850T
16-	New Westminster. Canadian Forest Products.	200	210T
17-	Island Pulp & Paper	110	115T
18-	Scott Paper Ltd. New Westminster.	160	170T
19-	Port Alberni. McMillan & Bloedel.	1420	1484T
20-	Port Alice. Western Forest Products.	450	500T
21-	Port Melon. A. Mill	525	551T
22-	Powell River. McMillan & Bloedel	1855	1947T
23-	Prince George. Intercontinental Pulp Co. Limited.	645	677T
24-	Prince George. Northwood Pulp and Paper.	1450	1522T
25-	Prince George. Canadian Forest Products.	810	850T
26-	Prince Rupert. Pulp.	1200	1260T
27-	Quesnel. Cariboo Pulp and Paper	750	800T
28-	Quesnel. Quesnel River Pulp.	450	500T
29-	Squamish. Western Forest Products.	460	500T
TOTAL			22124T

TRIFCO MINERALS LTD. MARKET FOR TALC (continued)

This is the list of our potential customers for the paper industry only. One mill is coming to Britannia Beach, with the latest technology; cost of the mill is 274 million dollars.

Some mills do not use talc extensively, may be some mills are not running at 100%, and with this in mind we calculated the total tonnage of 22,123T at 75% and it gives us: $22,123 \times 0.75 = 16,592$ tonnes per year in B.C. and northwest Alberta. We can compete with the paper mills in Washington (U.S.) and try to be accepted in the market. Our costs will be lower.

TRIFCO MINERALS LTD. QUALITY OF ORES

Our peridotite and platy Talcs have been beneficiated by the Ontario Research Foundation in Mississauga. We have a report on their works, and we have a product (see report).

Extenders and Fillers Pigments represent one of the most stable and attractive segments of the industrial minerals business.

The products have experienced real growth in North America of over 4% annually for the past 10 years (including recession years of 1980 through 1982).

There are 20 different physical minerals like Talc, Barite, Calcium Carbonate, Cement, Dolomite, Kaolin, Mica, Vermiculite, Wollastonite, Silica etc., used as industrial minerals.

Estimated North America Sales 1978-1988 (millions of dollars)

	<u>1978</u>		<u>1983</u>		<u>1988</u>
Talc	35	+30%	50	+33%	75
Silicon	110		125		180
Cal. Carb.	85		165		270
Kaolin	210		440		610
All Others	85		120		160
	---		---		---
	525	+58%	900	+30%	1,300

OUTLOOK

The extenders and fillers pigments represent one of the most stable and attractive segments of the industrial minerals. The products have experienced real growth in North America of over 4% annually for the past 10 years (including recession years of 1980 through 1984).

Estimated Worth	1978 - 1988 (millions of dollars)		
<u>America sales</u>	<u>1978</u>	<u>1983</u>	<u>1988</u>
Talc	35 +30%	50 +33%	75 million \$
Kaolin clays	210	440	610 million \$

Until the late 1970's the North American filler and extender market was virtually controlled by the U.S. During the past 5 years Canadian suppliers of Talc, Calcium Carbonate, Micas and others, have become more aggressive.

Trifco Minerals Ltd. possess such commodities in our province and we can become an exporter south of the border and to the west. (Pacific) Talc will be in demand especially as a reinforcement in plastics with a forecast annual growth rate between 10 and 12 % for the 1983 - 2000 period. Shift from low alumina and silica refractions to basic refractions will contribute to increasing acceptance of Talc minerals in the metallurgical industry. Increasing consumption of coated paper and the uniqueness of the use of Talc for pitch control and for filler purposes will contribute to a high growth rate of 7%.

The high tech ceramics drive occasioned by the development of the "ceramic engine" by the United States, Japan and Europe will increase the Talc products consumption.

The world market for ceramics was estimated to be worth \$4 billion in 1985 and is predicted to be worth between \$30 billion and \$60 billion in 2010 - (report prepared for the Government of Canada, Department of Regional Expansion). Alcan Aluminum Ltd. of Montreal has embarked on a major effort to develop new advanced materials. Japan is the leading developer of ceramic engines. Increased use of Talc will be major in plastics, ceramics, paper making to 2010. Trifco Minerals Ltd. has several industrial minerals that it can produce:

Talc, Calcium carbonate, Wollastonite, Dolomite, Graphite, Syenite & Magnesite

In Quesnel alone, the Talc needed is 2.5 tons per mill per day. There are two mills now and a third will be approved in 1986. The Talc need can be 7.5 tons per day x 365 days = 2737 tons. Say, 2500 tons per year.

OUTLOOK (continued)

Prince George has three mills, say also 2500 tons per year. MacKenzie uses Talc in one mill - 900 tons - total 5900 tons. There are pulp and paper mills in Prince Rupert, Kamloops and the lower mainland.

Demand for Talc and Pyrophyllite is expected to be 15.8 million tons in 2000, 9.6 million tons in 1990, with an average growth rate of 5% during the 1983-2000 period. Talc will be in demand especially as a Reinforcement in Plastics with a forecast annual growth of 10-12% for the 1983-2000 period.

Shift from low-aluminum and Silicon refractions to basic refractions will increase the acceptance of Talc minerals in the metallurgical industries.

Increasing consumption of coated paper and the uniqueness of Talc for pitch control and for filler purposes will contribute to a high growth rate of 7%.

In ceramics, paints, insecticides, roofing and rubber products, consumption growth is forecast to be around 3.5% in North America.

The Province of Ontario produces incentives for new developments in industrial minerals. The provincial government gave a grant of \$675,000 in 1982 to increase the number of products of Canada Talc. The same government gave a grant \$940,000 to Steetley Talc for plant expansion.

In British Columbia, 1 ton of Talc to use for pitch control and paper industry, taken F.O.B. plant in the states cost from \$400 to 450 Cdn in Prince George and Mackenzie.

Our geographical location in the central interior of the Province will permit the supply of Talc at a substantially reduced cost to the mills.

Our plant will be located in Quesnel or 40 Km South-east of the town. Railway has access to Vancouver, Prince Rupert and the east. Two companies in the lower mainland need 4000 and 5000 tons of talc annually.

It has been recognized all over the world that the talc beds in a deposit are always extensive. Eastern Magnesia and Talc in Vermont started in 1902 in that state. Canada Talc has been worked since the beginning of the century. Steetley Talc also has been developed at the beginning of the century.

In the States, talc has been produced since the late 1800 until now, with the same mines.

OUTLOOK (continued)

Trifco Minerals Ltd. with a very limited drilling program came up this summer with 150,000 tons of talc (peridotite talc only) and it has huge showings in the platy talc which have not been drilled.

If we take into consideration the experiences of the talc companies in Canada only, and with the studies already done on the Trifco Minerals Ltd. talc property, and to extensive showings on the distance of at least 1000m, we can forecast the approximate reserves at 20m deep.

$$1000 \times 35 = 35,000m^2 \times 20 = 70,000 \text{ cubic metres}$$

Specific gravity = $2.7 \times 700,000 = 1 \text{ million } 890,000 \text{ tons}$
to 20m

Talc deposits go down generally to 300m. Some go to 800m in the States and Italy.

If one calculates only to 100m, one has the following:
 $1,890,000 \times 5 = \underline{9,450,000} \times \$250 \text{ per ton} = \$2,362,500,000$
value in talc.

Producing at the rate of 200T per day $\times 365 = 73,000T$ per year. The domestic market is assured for the years to come.

COMMERCIAL USES OF TALC

The commercial uses of Talc are extensive and growing rapidly all over the world - uses -

- | | |
|-----------------------------|--|
| 1. Pulp and Paper Industry | 8. in Insecticides |
| 2. Plastics Industry | 9. in Pharmaceuticals |
| 3. in the Paint Industry | 10. in the huge Cosmetic market |
| 4. in the Textiles Industry | 11. in Lubricant |
| 5. in the Ceramic Industry | 12. in Agricultural Applications |
| 6. in Roofing Products | 13. in the Rubber Industry |
| 7. in Coated Fillers | 14. in Putties, Caulks, Sealants,
and Adhesives |

Specifications

Talc is mostly used in a fine-ground state. There are many applications for Ground Talc.

For Filler usage (Pulp and Paper Manufacture) maximum particle size should be below 20 microns.

The ceramic industry uses Talc with 6 to 14 micron size.

In Plastic, Talc improves dimensional stability, chemical and heat resistance. It is used in Thermo-plastics mainly in polypropylene, nylon and polyester. Talc must be free of any impurities.

High quality Talc is used as an extender in paints.

Pharmaceutical industries are known as users of high purity Talcs, also are the Cosmetic industries.

There are many other industries using Talc.

B.C. TALC REQUIREMENTS IN THE PULP AND PAPER INDUSTRIES

British Columbia

We have at this time 25 Pulp and Paper Mills in the Province: 5 mills in North-west Alberta using the Talc in pitch-control and as filler and coating. From enquiries from the mills, some of them use 2.5 tons of Talc per day, every day of the year, or 1,000 tons per year.

Roughly estimated 25,000 tons of Talc are used in B.C. in the paper, paint, roofing granules, insecticides, the sealants and joint-fillers industries.

Makin Pulp and Paper is trying to establish a 275 million dollar plant near Squamish. They specialize in coated and uncoated papers production, with the latest technology.

MARKET SHARE ASSUMPTIONS

Canada Talc and Pyrophyllite Production and imports

	<u>Products</u>	<u>Imports</u>
1982 -	70,523	34,522
1983 -	97,030	35,406
1984 -	122,992	38,817
1985 -	131,668	38,000 (assumed)

Pyrophyllite accounts for 12% of the production or
 $131,668 \times 0.12 = 15,800$ tons (1985)

Total Talc products =	$131,668 \div 15,800 =$	115,868 tons
Total imports		+ 38,000 tons

		153,868 tons

In 1985 total products and imports = 153,868 tons

Consumption in Canada = 59,269 tons - from our
 production

Consumption of US imports 38,000 tons

Our total consumption arrives to $59,269 + 38,000 = 97,269$ tons

Manitoba uses	612 tons	imported from the States			
Saskatchewan uses	285 tons	"	"	"	"
Alberta uses	3,636 tons	"	"	"	"
B.C. uses	8,614 tons	"	"	"	"

TOTAL	13,147 tons	"	"	"	"

The west uses 13,147 tons of imported talc
 13,000 tons of domestic talc

 or 26,147 tons of Talc

B.C. uses 8,614 - 13,147 tons = 65% of imported talc
 B.C. uses approximately $26,147 \times 65\% = 16,700$ tons of talc per
 year of domestic and imported talc.

Our mill at the beginning will produce 9000 tons per year.
 Assuming 40% of the market at this time, or $16,700 \times 0.40 =$
 6,680 tons or 7000 tons of talc for the pulp and paper industry
 alone.

Trifco Minerals Ltd. plans to install a pilot plant as soon
 as possible at the approximate cost of \$1,340,000 Canadian
 including warehousing.

Trifco Minerals Ltd. Pro Format - 1988-1991

Description	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Year1 (1988)	percent	Year2 (1989)	Year3 (1990)	Year4 (1991)
Production & Sales 25 tons per day Per Month	750T	750T	750T	750T	750T	750T	750T	750T	750T	750T	750T	750T	\$		\$	\$	\$
Revenue per Month	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	1,800,000		1,800,000	1,800,000	3,600,000
Cost of Talc sold \$3,075 x 25	76,875	76,875	76,875	76,875	76,875	76,875	76,875	76,875	76,875	76,875	76,875	76,875	922,500	51.25%	922,500	950,000	1,900,000
Gross Profit	73,125	73,125	73,125	73,125	73,125	73,125	73,125	73,125	73,125	73,125	73,125	73,125	877,500	48.00%	877,500	850,000	1,700,000
Selling & Admin Expenses	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	192,000	10.00%	228,000	228,000	410,000
Net Profit before taxes	57,125	57,125	57,125	57,125	57,125	57,125	57,125	57,125	57,125	57,125	57,125	57,125	685,500	38.00%	649,500	662,000	1,290,000
Tax - 51%	PROJECTIONS												349,604		321,745	337,620	657,900
Net Profit													335,895	18.60%	327,755	384,380	632,100
Costs:													335,895				
Labour \$120 per man/day x 10	\$ 1,200																
Transportation	150																
Drilling, Explosives	150																
Light, Power, Fuel	600																
Reagents, grease, other	300																
Bags	625																
Miscellaneous	50																
	\$ 3,075																
	x 25																
	\$76,875																
Net Profit													335,895	18.60%	327,755	384,380	632,100
													335,895	18.60%	327,755	384,380	632,100
													335,895	18.60%	327,755	384,380	632,100

Selling: Admin expenses
Process Engineer - contract for 3 or 4 months retained as consultant after.

INNOVATIONS, RESEARCH, FINANCES FOR DEVELOPMENTS PER YEAR
5 years ahead

Marketing

Packaging new design.

Develop plan (marketing) for platy Talc at once 1987-1988.

Visit to plants (1987-88)

Study of expansion to 50 tons (1987-88-89) Consultation with engineers.

Production

See access to packaging machinery.

New bids for ore products end of the year.

Management Committee

In four years, and only one year at 50 tons per day, the cash flow will be \$1,948,200. No depreciation, no depletion have been allowed. Any loan can be reimbursed in time.

Personnel

Job evaluation.

Sales manager.

Preliminary 4 years planning draft at \$200 per ton only will be revised.

Finance

Financial statement review with auditors.

New machinery. Financing 1989 or before (for 50 tons plant production)

Investigate automated (1988) Pay roll

NOTE: Some Talcs will be ground and sold at less than \$200 per ton, but the sale will be above the production of the 25 tons above.

New Product Development

Explore expansion plastics, paints products (1987-88-89), joint fillers, foundry, insecticides, cosmetics.

Other

Analyses of Insurance coverage.

NOTES

PAGE 23

4 years planning

*no depreciation, no depletion calculated
*if CEE & CDE - exploration & development expenses are considered, income will be higher

CAPITAL EXPENDITURE

1. Statement of Purpose

Funds are required to develop the Pilot Plan. They will be used for the creation of the Plant, access, electricity, machinery (for 25 tons plant), development of the mine, stockpiling.

The cash flow at 25 tons shows the viability of Trifco Minerals Ltd. Money will be raised by our public offering and also by a loan by the B.C. and Federal Governments in the amount of \$500,000, (IDAP) Assistance Program.

Our project is capitalizing on a new opportunity which exists in our Province and the new development on the Pacific Rim. Our project is generating at least one new product which is Talc at this time. This Talc product is the first step in the development of other industrial minerals.

2. Environment

The pulp and paper industry and others will need close to 30,000 tons of Talc per year in British Columbia and North-Western Alberta. This will require a plant with a production of 100 tons per day, this is the pulp and paper industry alone. With our materials inventory (ores) that we have now plus the projections of platy Talc on 1 Km. we will be able to produce Talcs for a very long period of time; the domestic market will be assured.

Our transportation costs in the Province will be half of the costs of our competitors, to say the least. The other Talc producers are in the East of Canada or in the States. They do have prohibitive transportation costs. The demand for cosmetic Talcs is huge and we have to produce such Talc and we have the materials for such production. The regional labour rates are approximately \$12 to \$16 per hour.

Two pulp and paper mills are the roots of the income in the region and will be so for a long time to come. The huge investment of the mills take at least 20 to 25 years to amortize and they are just starting. The political attitude will be favourable because of the jobs creation emphasized by all levels of Government.

The social aspect of Quesnel will be favourable too, people are already asking for jobs. Technologically, shops exist for all kinds of heavy equipment and machine shops for repairs or maintenance, construction contractors, operators of heavy excavating equipment, transportation people of all kinds, drilling and blasting contractors can be hired. Several auto-mobile representatives can be seen in the industrial centre of the city.

CAPITAL EXPENDITURE - Environment (continued)

As for the Talc industry, the market trend of the pulp and paper mills is on the increase at the rate of 3 to 4% per year and plus the third world needs paper and Talc products.

The competition climate at this time is in favour of the Companies already producing Talc, but later when we start producing it will be in our favour because of the transportation and producing costs and our location.

Other factors: Financial marketing in B.C. exists, but has not been approached yet.

3. Management Team in the Future

Plant Manager	Purchasing Inventories
Accountant (costing)	Major Suppliers
Consultant for quality products	
Process Engineer may be required	

The consultant will be needed for 4 to 6 months at the beginning of the project and later retained on a consulting basis.

4. Labour

15 people - mining, loading, transportation to stockpiles, feeding the mill, crushers, ball mill, flotation, drying, bagging loading

ESTIMATED TOTAL COST OF PROJECT

Page 1 - Feasibility study

Land clearing	
Buildings	
Power line	
Mine	
Inventories	\$ 2,145,000

Page 2 - Plant Equipment

Crushing	
Coarse grinding	
Grinding	
Flotation	
Air classifiers	
Conveying	
Shipping	
Silos	
Wilfley tables	\$ 1,550,000
Transportation costs	<u>200,000</u>
	\$ 1,750,000

Page 3 - Cost of Claims (Bill of sale)

Permits	
Agreement costs	
Cost of negotiations	
Pre-production expenses (miscellaneous)	\$ 211,000
Experiments of new technologies	
Working capital (2 years)	1,845,000
Selling - Administration expenses - Marketing	384,000
Tailing pond - Dam	500,000
Vehicles	350,000
Exploration program - reserves increase to 1 million tons	<u>150,000</u>
	\$ 7,335,000

NOTES:

1. Some pieces of equipment can be acquired locally - crushers, flotation cells, conveying etc.

2. We are preparing a presentation to be submitted to the Government of Canada related to the D.R.I.E. program. If successful, Trifco Minerals Ltd. can receive capital of \$600,000 to \$1,500,000.

PLANT COSTS - ESTIMATED

1. Feasibility study		\$	40,000
2. Land Clearing:			
Scrubbing, burning	\$	35,000	
Levelling, drainage only			
- no logging		60,000	
Access roads to mine		100,000	
Access roads to plant - stock piles		30,000	
Culverts		15,000	
Stockpiling pads		<u>20,000</u>	
		\$	260,000
3. Buildings:			
Plant with concrete pad 30m x 15m	\$	250,000	
Office		80,000	
First aid - ambulance		35,000	
Warehouse - procurements		20,000	
Warehouse - final product		<u>100,000</u>	
		\$	485,000
4. Powerline - 3 phases from Quesnel		\$	700,000
5. Mine (see land clearing - above):			
One drilling machine	\$	150,000	
One blasting equipment, store			
rooms (explosives)		10,000	
One loader		100,000	
Two trucks - 15 tons +		<u>150,000</u>	
		\$	410,000
6. Inventories:			
Parts, reagent for flotation, oil,			
greases, bags, sieves	\$	200,000	
Fuels - gas, diesel		<u>50,000</u>	
		\$	250,000
			<hr/>
	TOTAL	\$	2,145,000

PLANT EQUIPMENT COSTS - ESTIMATED

Preliminary crushing equipment (adapted) from other mining and crushed stone types of operations	\$ 150,000
Coarse grinding - 40,000 tons per year basis 6 Pebbles mill 10' x 66" - 149 kw 200 HP synchronous	700,000
Grinding - favours the practice of the cement plants on the coarse products but tend to specialize in attrition type and fluid energy mills for the finer sizes (200 meshes). Ball mill and specialized equipment	250,000
Flotation equipment is identical to that of beneficiation plants in other industries	80,000
Air classifier adapted from cement technology on the coarser product Finer products are established by high-speed air classifiers, such as the Raymond centrifonic and the air sifter classifiers	65,000 70,000
Conveying equipment is conventional for crusher stone and cement plant technology	30,000
Shipping containers are close to the technology of the cement plant manufacturers	80,000
Silos - Three 450 tons (see flow sheet "Eastern Magnesia & Talc" Vermont)	50,000
Shipping - Rail box cars are used for delivery also in 50# Kraft multiwall sacks	
Wilfley tables for precious metals	75,000
Transportation costs	200,000
	<hr/>
	\$ 1,750,000

ESTIMATED COSTS

Cost of survey - claims	\$ 5,000	
Miscellaneous permits - bondage (environment)	8,000	
Negotiations - agreement - fees	10,000	
Sale of claims to Trifco Minerals Ltd.	55,000	
Pre-production expenses (miscellaneous)	<u>133,000</u>	\$ 211,000
Working capital - 2 years (consultants and initiation of people) 25 tons per day - 1 months costs 76,875 - 2 years \$1,845,000		
Marketing, administration 16,000 x 12 x 2	<u>384,000</u>	\$ 2,229,000
Tailings pond - dam		\$ 500,000
Vehicles (small truck, car, 20 ton truck)		<u>350,000</u>
TOTAL		\$ 3,290,000
Exploration 1987 - 1988		
Drilling program		
Increase of reserves to 1 million tons		\$ 150,000

MISCELLANEOUS PLANS - (continued)

4. Manpower Plan

Skilled, semi-skilled or unskilled labour.

At the start every important technical position should be filled.

Personnel required. (by function). Local wages rates & Company rates.

Training needs and costs.

% of manpower costs in costs of production

Compensation programs (fringe, health, insurance, holiday, accident, W.C.B.)

Working conditions. Turnover-Morale. Unions. Strike history.

5 Locational Plan

Study. Several parameters to choose from. Excellent plant location. What is the optimum? Studies should show the costs of alternative sites. Obviously such studies would not be required in a resource based industry. Consultant will decide.

6 Financial Plan

Two essential elements in the plan:

1. IDENTIFYING THE SOURCES. Uses of funds in terms of timing, amount of costs and repayment schedule.

2. Assessing the project Financial return. Interval ratio of return. Net present value. Payback period. Risk analysis (from most pessimistic to most optimistic. (see cash flow)

Package: audited financial Statement. Cash Flow (4 years)

Budget forecast. Financial return (internal rate of return-ROI. (return on investment.) Net present value and sensitivity analysis).

STRENGTH OF THE VENTURE

Our strength resides firstly in our 2 types of Talcs with extensive reserves with assets of 37.5 million dollars plus our Calcium Carbonate. Presence of Barytes, Graphite and Wollastonite.

See Nevin, Sadlier-Brown, Goodbrand 1986 report for reserve of Talc and ores.

Montreal Engineering Pacific Ltd., have some information from Trifco Minerals Ltd. related to their feasibility study. We are aware of the risks which are at stake at the beginning of the operation, but the beneficiation of our materials has shown that our Talcs are comparable for example to the "Beaver white" Talc of Cyprus in California, which establishes us in a very good position right from the start.

We do have a marketable product in Talc now. We like to emphasize our competence of producing Talc at a lower cost than anybody because of our location, reserves, and transportation costs.

We know a company that is processing a deposit of Talc at 10% in the States. We do have Talcs at 40,45,70,80,85 and 90 percentiles.

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Fairbank, B.D. 1985: Report on the Wim, Wim-Ta claim group, Sovereign Creek area - Report to Trifco Minerals Ltd. by Nevin, Sadlier-Brown, Goodbrand Ltd. - (July 8, 1985) 13 pages

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"Talc, Soapstone and Pyrophyllite 1985" by Michel Prudhomme, Mineral Policy Sector, Energy, Mines and Resources, Canada. Phone (613) 995-9466. In this report, mention has been given of Trifco Minerals Ltd.

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Ontario Research Foundation, 1985. Beneficiation and evaluation of two talc bearing bulk samples from Quesnel, British Columbia - Wim, Wim-Ta claims.

Report by Ontario Research Foundation to Trifco Minerals Ltd.

Pulp and Paper Mills - Executive Offices, complete mill listing - 1984 Posts Pulp and Paper Directory for the establishment of talc tonnages used in the pulp and paper industry.

August 1986

Certificates and Statement of Qualifications

I, Rene Trifaux Sr., hereby certify that:

1. I hold a diploma in the Mining Section from the School of Mines of Chatelineau, Belgium - Exploitation, topography, mining plans, geology, industrial economy, reglementation of mines.

2. I hold a diploma in the Mining Section of the Tamines School of Mines, as a surveyor, preparation of plans, reserves calculations and reports related to such activities.

3. I hold a certificate from the Paul Pastur University of Charleroi, Belgium. Don-A-16930, where I finished 1 year of the Mining Section, mathematics, physics, chemistry, plans preparation, geology, reports.

4. I was a member of the Society of Industrial & Cost Accountants, McMaster University for two years - certificates - Alberta section.

5. I have a certificate of my employment as "Cost Engineer" with Syncrude Canada Ltd., Petroleum Plaza South, 9915 - 108 Street, Edmonton, Alberta T5K 2G8. Phone (403) 429-6161
Budget preparation, cost estimates, cost analyses on:

- (a) Utilization of machinery and manpower on the project for roads and camp construction, sewage tank farm, electrical installation, cost for transportation of all inventories to the site and reports.
- (b) Inspection and establishment of records for all the fleet used on the sites - fuel, service, repairs and maintenance.

6. I kept, analyzed and reported on the five computerized systems used by Bechtel Canada Ltd., Contractor.