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GEOLOGICAL REPORT OF		
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THE ORO VIEJO CLAIMS		08/88

REVELSTOKE MINING DIVISION

NTS 82 M/10 E

LONGITUDE 118° 35' 36 03"

LATITUDE 51° 40 N 39 39"

FILMED

OWNED BY: Gord Hurlburt Kory Koke Robert Komarechka Brian Meyer

GEOLOGICAL BRANCH ASSESSMENT REPORT

OPERATOR: Robert Komarechka

16.604

AUTHOR: Robert Komarechka P.Geol.

NOVEMBER 30, 1987

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TABLE

1 Dolomite Geochemical Analysis

10a

INTRODUCTION

The Oro Viejo claims consist of a grouping of 56 units. Originally they were staked as four separate modified grids labelled Oro Viejo #1 (20 units, staked Sept. 1986), Oro Viejo #2 (20 units, staked Sept 1987), Oro Viejo #3 (4 units, staked Sept 1986) and Oro Viejo #4 (12 units, staked May 1987).

Initially staked for high purity dolomite, early prospecting also revealed the presence of a pervasive talc trend.

This report shall concentrate on the geology of the area and the relationship, extent and quality of these two industrial minerals.

This report is the result of several prospecting trips in the area during the 1986 field season and a geologic mapping and geochemical sampling program undertaken during the summer of 1987.

Location and Access

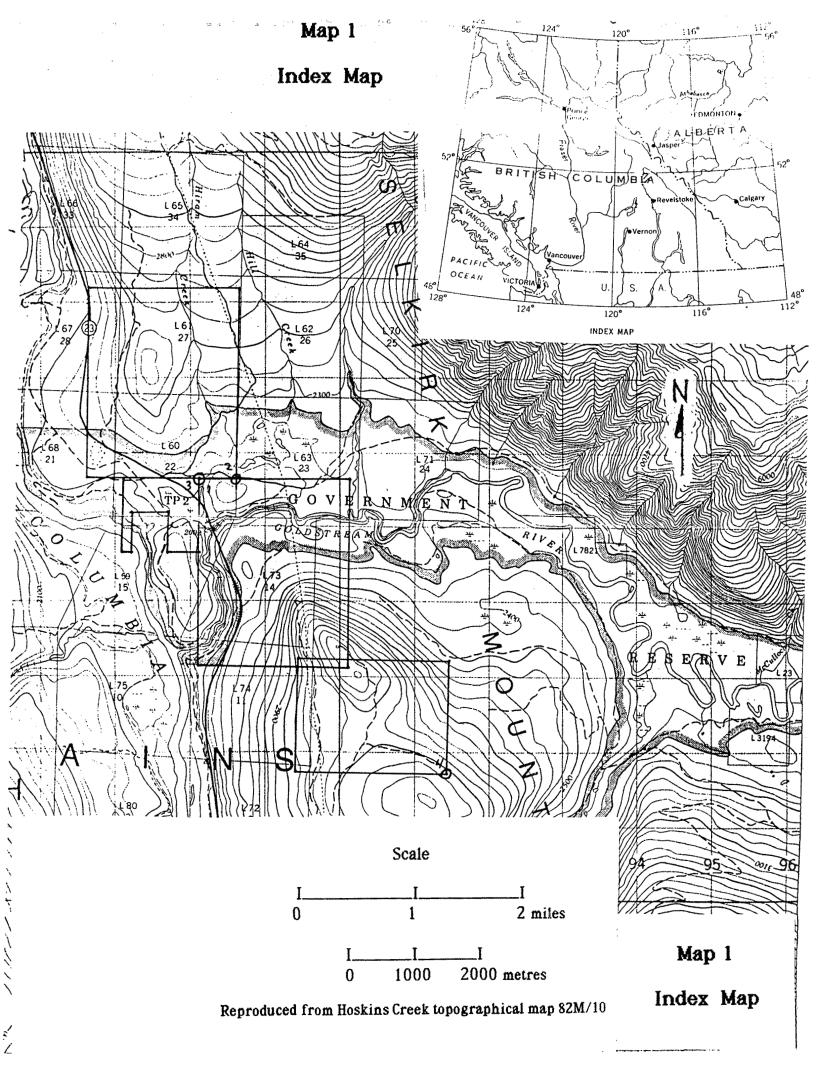
The Oro Viejo claim group is located at the mouth of the Goldstream River. This is located along the east side of the Columbia River about 80 km north of Revelstoke British Columbia along the recently paved Highway # 23 This highway parallels the east shore of the Columbia River and terminates at the Mica Dam. The location of these claims are shown on map 1.

Revelstoke is a medium sized town located on the trans Canada highway #1. It is approximately 631 km east of Vancouver British Columbia. and 413 km west of Calagary Alberta. The Canadian Pacific Railway line also passes through the town and operates a major station here.

Geologically the property lies at a latitude of $51^{\circ}40$ 'N and longitude of $118^{\circ}35$ 'W, or in reference to the N.T.S. system, within the east half of 82M/10.

Road access to the property is obtained via the paved Hwy #23 north of Revelstoke. Good access throughout the area is possible by numerous recent logging roads as illustrated in map.4.

Access to the property area can also be obtained by boat from the Revelstoke Damsite just north of Revelstoke.



Previous Geological Work

In the late 1800's and early part of this century the general area was sporadically prospected for gold. Placer gold has been produced from French Creek, McCulloch Creek, Old Camp Creek, Goldstream River and the Columbia River. In addition lode gold has also been produced in small quantities from the Groundhog Basin area at the headwater of McCulloch Creek.

The discovery of sulphides in the area and the development of Noranda's Goldstream mine resulted in a rash of exploration in the area with staking occuring in the area of the Oro Viejo Group.

The following table summarizes the more recent work in the immediate report area (the reference number listed below refers to the assessment files on record with the B. C. government):

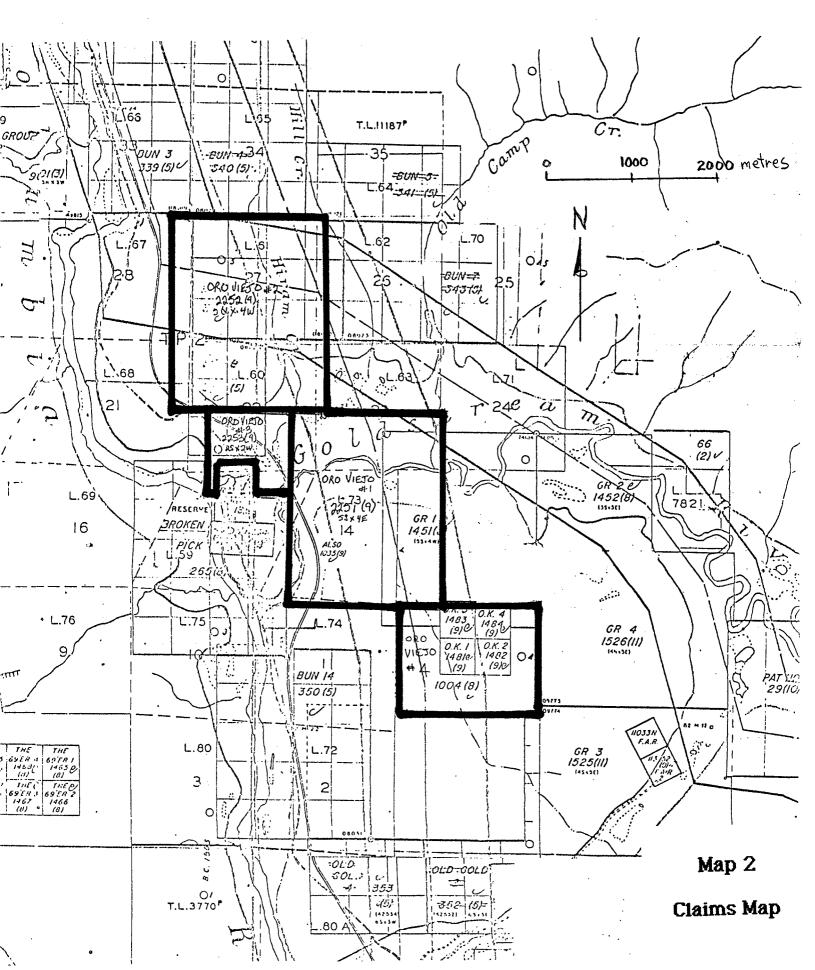
Date .	<u>Ref #</u>	<u>Claim</u> <u>Name</u>	Owner	Work Performed
1977	06176	Big Bend Claims	Seaforth Mines Ltd.	Geology, Geophysics, Geochem, looking, for another Gold- stream type deposit.
1976	06721	Bun Properties	Noranda	Geochem & silt
1977	7867 11578		Cominco	Geological mapping, prosp, silt and soil Geochem

Currently, existing claims in the area include the F.A.R. claims (to the east side of the Oro Viejo Group) staked for carving talc, the Broken Pick claims to the west staked for minor sulphides and talc and the G.R. claims to east containing minor sulphides showings. Map 2

Tage 5a

. e 12

Claims Map



Topography, Vegetation and Climate

The topography in the study area consists of steep hills and broad river valleys. The elevation ranges from 2,000 feet in the lower valleys to 3800 feet at the top of the higher hills. Topography of the area is shown on map 1 and map 5.

Vegetation in the area consists mostly of secondary scrub deciduous growth after logging operations. In some areas falls of wood and devils club makes progress extremely difficult. In unlogged areas, vegetation consists of mature cedars and spruce or fir

The climate in the area is generally moderate to temperate with high precipitation. Heavy snow in winter starts in November and melts in late April to May. This leaves a six month field season from May to October. During July and August days can be very hot with frequent evening thunderstorms. August is the driest month.

Acknowledgements

Acknowlegement is made to the province of British Columbia's Financial Assistance to Mineral Exploration Program (F.A.M.E.) for partial funding of this study.

GENERAL GEOLOGY

The geology in the area consists of micaceous rocks of the Proterozoic Horsethief Creek Group and the lower Paleozoic, Badshot Formation and Hamill and Lardeau Groups. Also encountered was an altered serpentinite 'intrusive' trend with associated observed adjacent talc magnesite schist. Nearby intrusives of post lower Cambrian granite was also observed. Overall rocks have been regionally altered to upper greenschist facies with a general foliation of 270° and dipping 36° north. See map 3 for the general geology and map 4 for the detailed geology.

Horsethief Group

Rocks of the Horsethief group appear north of the Goldstream River in the study area. The rocks in this area tend to be primarily brown to tan coloured schists to phyllites and occasionally phyllonites. Slumpage and local deformation was common and accurate dips and strikes of foliation were generally difficult to obtain. In addition, a propensity to crumble easy and weather resulted in very few poorly exposed low lying outcrops being found.

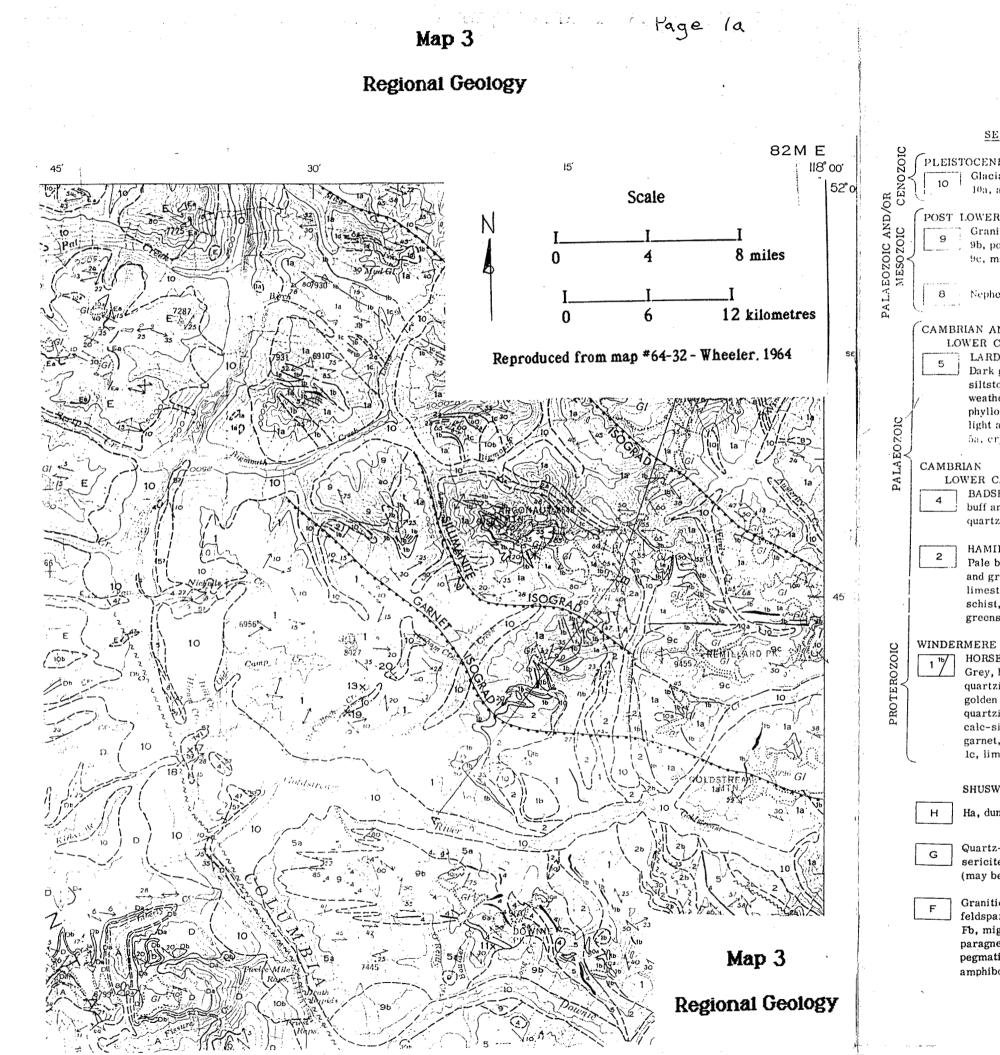
Along the westernmost outcrops of the Horsethief Group, beds of a banded (bands 1/4 - 2 inches wide) light to dark gray (higher graphite content) calcitic marble occur. This probably correlates with the upper member of this group as described by Wheeler (1962).

Outcrops of this banded calcareous marble was also observed along the south side of the Goldstream River along an old logging road near the eastern portions of the map area (shown as map unit 1b on map 4).

Hamill Group

This formation was not observed anywhere except for a possible outcrop found along a logging road on the south side of the Goldstream River. This poorly exposed outcrop, found between the Badshot Formation to the west and the Horsethief Group to the northeast, consisted of a brown weathered medium to finely grained quartzite.

It is possible that this group may be more continous but lack of outcrop and possible facies change to a more micaceous metasediment precludes its identification. It is also possible that it may have been eroded in part or faulted along the Goldstream Valley and represent an unconformable contact.



SELKIRK AND MONASHEE MOUNTAINS

PLEISTOCENE AND RECENT

Glacial drift, silt, alluvium; areas of little or no outcrops; 10a, alpine moraine; 10b, landslide or slump

POST LOWER CAMBRIAN

Granitic rocks, undivided; 9a, biotite quartz monzonite; 9b, porphyritic biotite-hornblende quartz monzonite; 9c, mainly hornblende granodiorite

Nepheline syenite gneiss

CAMBRIAN AND LATER

LOWER CAMBRIAN AND LATER

LARDEAU GROUP

Dark grey and black carbonaceous siliceous slate, phyllitic siltstone, and quartzite; dark grey limy slate, rusty weathering buff slate; dark grey and rusty siliceous phyllonite and quartz muscovite-chlorite-plagioclase schist; light and dark grey limestone; greenstone and chlorite schist; 5a, crystalline schist and gneiss

LOWER CAMBRIAN

BADSHOT FORMATION: light grey and dark grey limestone, buff and grey dolomite, silvery brown phyllite, grey and white quartzite; 4a, marble, amphibolite, calc-silicate rocks

HAMILL GROUP

Pale brown, grey, pale green quartzite; rusty brown, grey, and green slate and phyllite, minor buff- and brown-weathering limestone; 2a, feldspathic micaceous quartzite, quartz-mica schist, amphibolite; 2b, greenstone, locally amygdaloidal, greenstone-breccia

HORSETHIEF CREEK GROUP

Grey, buff, brown, and green slate; phyllitic feldspathic quartzite; quartz-sericite schist; la, grey, silvery brown and golden brown quartz-mica schist, mica schist, micaceous quartzite, speckled quartz-feldspar-biotite-gneiss, amphibolite, calc-silicate rocks, pegmatite (schists commonly contain garnet, kyanite, and sillimanite); 1b, marble, limestone; 1c, limy beds; 1d, amphibolite

SHUSWAP METAMORPHIC COMPLEX

Ha, dunite; hb, biotite-hornblende pyroxenite

. . .

Quartz-mica schist, micaceous quartzite, graphitic quartzsericite schist, and alusite schist, minor aplite and pegmatite (may be part of Mount Ida Group)

Granitic gneiss and abundant pegmatite, paragneiss; Fa, quartzfeldspar-biotite paragneiss, quartzite, marble calc-silicate rocks; Fb, migmatite complex composed of quartz-feldspar-biotite paragneiss containing sillimanite, lineated leucogranite, aplite, pegmatite; foliated hornblende-biotite granodiorite, granite-gneiss, amphibolite, calc-silicate rocks. nebulitic gneiss and agmatite:

Badshot Formation

The Badshot Formation in the study area consists primarily of a snow white microcrystalline frequently tectonically brecciated dolomite. To the northwest of the map 4 this formation becomes buff white to tan and appears to cross the Columbia River to the west. To the southeast this snow white dolomite appears to dip shallowly under the overlying Lardeau Group.

Previous work in the study area by Read and Brown suggest the map area as being an allochthon slice of inverted stratigaphy. The unusual size of the Badshot Formation in the area and its tectonic brecciation suggest deformation possible related to the axial trace of a fold.

Interestingly a very small area of unrecrystallized grey limestone was noted along the centre of this apparent fold structure. See unit 3a on map 4 located on a hilltop south of the Goldstream River.

Further details on this dolomite is discussed in the Economic Geology Section.

Lardeau Group

The Lardeau Group in the map area consists primarily of silvery grey phyllites with interbeds of carbonaceous slates and minor limestone. Locally a structural trend with associated, talc magnesite schist, chlorite and minor sulphide mineralization obliquely cross cuts the foliation of this group This trend is discussed further in the Economic Geology Section under The Talc Magnesite Trend.

Structure

The rock in this area have been subjected to a regional metamorphic event producing an average foliation of 90° with a dip of 36°N. This foliation has obscured bedding in most cases due to the micaeous nature of most of the rocks in the area.

True bedding can be ascertained from the Badshot Formation and occasional banded mable beds. Care must be taken here as several stages of folding and overturned stratigraphy.have been reported from previous authors. It is the opinion of this author from observations of the Badshot, that the area between Goldstream River and the Old Goldstream Creek represents a decollement. This could account for the unusually thickening of the Badshot Formation in this area. In addition it may also explain the tectonic linear brecciation trend as a possible axial trace of this folded structure.

ECONOMIC GEOLOGY

Dolomite

The dolomitic marble of the Horsethief Formation has been discussed earlier. Megascopically it consists of a snow white to a buff white microcrystalline earthy to chalky massive recrystallized dolomite. Tectonic brecciation is common along the strike of the formation and reduces its value as a dimension stone material despite the ability of this stone to take a high polish.

Mineralogically, as a result of acid tests and chemical analysis (see table 1), it appears that in the study area the Badshot Formation consists of a high purity (95 - 99%) dolomitic marble. This high purity dolomite extends over a strike distance of 4 kilometres and has a width ranging from 500 metres in the north to over 1500 metres in the south. This represents an approximate overall area of 4 million sq. metres. Continuity from 3,800 to a 2,000 foot elevation suggests at least 548 vertical meters of depth extension.

As a result of the immense quantity of this material it was felt prudent to obtain a series of random whole rock analysis over the area to ascertain the quality of this dolomite.

Although not encountered in the samples of this geochemical study a chalky white pure magnesite rock was encountered in a sample sent to Indusmin

Talc Magnesite Trend

A pervasive talc magnesite trend generally striking at 135° and dipping at 70°N exists from the shores of the Columbia River, across the lower reaches of the Goldstream River, up the east slope of a hill and after being exposed by a highway roadcut then disappears in overburden 1400 meters from the shoreline. On a general strike of 135° at the top of this hill about 1400 meters away from the highway a small piece of talc float was found but no outcrops were observed. On the east side of this hill at a bearing of 100° and about 3600 meters away another talc occurence is found with very similar structural and mineralogical features as the previously observed outcrops. If this trend is proven to be continous, a talc trend of over 6400 meters would exist.

TERRAMIN RESEARCH LABS LTD.

Table 1

Mage 10a.

Dolomite Geochemical Analysis

Job#: 87-260				т. <u>х</u>		•					
Sample	Si02	A1 203	CaD	MgD	Na20	K20	Fe2O3	MnO	Ti02	LOI	Total
Number	-%-	- 1/2 -	-%-	-%-	-%-	-%-	-%-	-%-	-%-	-%-	-%-
1	0.19	0.06	30.08	21.72	0.009	0.004	0.13	0.008	0.02	47.00	99.21
2	0.06	0.02	30.64	21.22	0.003	0.001	0.16	0.098	0.02	47.15	99.28
3	0.04	0.02	30.22	21.55	0.003	0.001	0.17	0.008	0.02	47.15	99.18
Зa	0.09	0.02	30.08	21.72	0.007	0.001	0.10	0.006	0.02	46.95	98.98
4	0.09	0.06	30.36	21.55	0.005	0.004	0.17	0.010	0.02	46.90	99.16
5	0.09	0.06	29.94	21.72	0.004	0.002	0.16	0.008	0.02	47.00	98.99
6	0.96	0.30	49.66	4.59	0.012	0.040	0.19	0.012	0.03	43.75	99.55
6a	1.16	0.43	42.25	10.50	0.009	0.057	0.39	0.023	0.03	44.65	99.49
7	0.06	0.04	30.50	21.39	0.004	0.001	0.09	0.005	0.02	46.90	99.00
8	2.80	0.81	40.71	10.59	0.100	0.013	0.60	0.039	0.03	43.30	99.01
9	4.06	1.28	43.37	7.53	0.056	0.308	0.53	0.021	0.07	42.25	99.49
10	0.09	0.06	30.36	21.55	0.007	0.001	0.13	0.006	0.02	46.95	99.16
11	0.06	0.04	30.50	21.22	0.011	0.001	0.33	0.090	0.02	46.85	99.12
12	0.09	0.06	34.28	18.07	0.005	0.002	0.19	0.057	0.02	46.50	99.26
13	0.11	0.04	30.22	21.55	0.007	0.001	0.13	0.021	0.02	47.10	99.19
14	0.06	0.04	30.50	21.39	0.015	0.004	0.11	0.019	0.02	47.05	99.21
15	0.17	0.05	30.22	21.55	0.007	0.002	0.11	0.009	0.02	47.00	99.15
15a	0.19	0.08	30.64	21.22	0.011	0.001	0.14	0.013	0.02	46.85	99.18
16	0.06	0.04	31.05	20.89	0.009	0.005	0.15	0.034	0.02	46.95	99.22
17	0.28	0.15	49.10	5.41	0.016	0.022	0.10	0.014	0.02	44.00	99.11
18	0.06	0.05	30.64	21.22	0.005	0.001	0.26	0.044	0.02	46.90	99.21
19	0.04	0.04	30.22	21.55	0.003	0.001	0.16	0.041	0.02	46.95	99.02
20	0.06	0.04	30.22	21.55	0.003	0.002	0.20	0.014	0.02	47.05	99.16
21	0.24	0.11	48.69	5.83	0.005	0.006	0.19	0.026	0.02	44.00	99.16
22	0.04	0.04	30.50	21.39	0.012	0.001	0.27	0.049	0.02	47.00	99.32
23	0.06	0.04	30.78	21.06	0.003	0.001	0.29	0.048	0.02	46.90	99.19
24	0.04	0.04	31.62	20.39	0.003	0.001	0.11	0.027	0.02	46.60	98.85

Sample	Cu	Ag
Number	ppm	ppm
9	4	<0.1
11	3	<0.1

The following paragraphs describe the observed outcrops as one proceeds from the west to the east along this trend.

Talc magnesite with minor chlorite and serpentinite occurs to the west of the Oro Viejo claim group on the Broken Pick property (see claim map 2). A well exposed outcrop of talc magnesite schists occurs along the shoreline of the Goldstream River. Within this schist is found a minor serpentinite intrusion about 50 metres from the north contact of the talc magnesite schist. A band of chlorite about 10 metres wide is found along the southern contact of this talc magnesite schist. Southward from this, bull quartz veins occurs with fucshite and finally silicified rocks of the Lardeau group. Strike of this unit appears to be 140° with a dip of 60°N.

As this trend is followed eastward, overburden obscures details but small outcrops and local float of the earlier sequence, especially the talc magnesite schist, have been found to Goldstream River. A talc magnesite outcrop along the Goldstream consists of a narrow 2 metre wide irregular vein on the west shoreline becoming 7 meters wide on the east shoreline. This vein has a strike of 140° and a dip of 40°N. They appear to have been plastically deformed in the solid phase along an apparent fracture trend which crosscuts the existing schistosity. Adjacent to the south of this talc magnesite schist is found black silicified carbonaceous fissile slates having a foliation striking 114° and diping 42°N. Adjacent along the north contact occurs minor pyrite and chalcopyrite mineralization. No serpentinite or chlorite was observed here. As much sloughing occurs along the shoreline it is quite possible that the true width of the talc magnesite trend may be wider

At the talc outcrop along the highway, the talc forms three separate veins giving a composite width of 39 meters of talc magnesite schist. From north to south we have first, a 5 metre wide zone of good green white steatitic to occasionally crystalline talc, followed by 7 metre wide zone of talcose phlyllite, followed by a 7 metre wide zone of white banded marble, followed by an 8 metre band of talc, followed by a band of 110 metres of graphitic phylites, silicified in part, followed by an 8 metre talc magnesite schist, followed by an 18 metre metre section of overburden with outcrop exposure consisting of talc magnesite schist, followed by a 30 metre band of graphitic phyllite which terminates at a small creek. Beyond this creek the rocks consist of brown phyllite and overburden. Sulphides mostly of pyrite were noted along the north side of the northmost 5 meter thick tale bed. The tale magnesite schist at this outcrop has a strike of 175° and dips at 70°N. The foliation in the area strikes at 112° and dips at 24°N. Local small scale drag folding was noted on the footwall of some of the talc magnesite contacts.

An attempt was made to follow this talc trend eastward 400 meters up the hill. Previously abandoned haphazard logs, dense secondary growth and devils club slowed progress and no outcrops were observed.

A traverse along the power line 1400 meters away at the top of the hill did reveal a small piece of talc float in the overburdened area just to the north of a small creek (see map 4).

Talc was also present on the east side of the earlier mentioned hill. This occurence is currently being used as a source of carving soapstone. From north to south this occurence consists of a contact zone of sulphidic graphitic phyllite on the hanging wall, 5 metres of light green steatitic laminated talc, 11 metres of grey phyllite with, minor sulphides on the north side of the south contact and finally 12 metres of talc magnesite schist. Generally, this body strikes at 30° and dips 30° to 40°N.

Several other smaller talc occurences are found along the road to the Noranda Goldstream minesite. These occurences appear to be small with quartz veins associated with them. A 70° strike and 50°N dip was measured on one of these occurences.

FIELD TECHNIQUES

Mapping Procedure

Originally it was planned to do a systematic grid over the Oro Viejo claims but lack of outcrop in many areas and exceedingly difficult travelling in uncleared logged areas overgrown with alders and devils club greatly slowed down the progress. As a faster and more informative approach on mapping it was decided to walk along the many existing old and recent logging trails and roads in area as well as the various cleared powerline paths. During extremely hot afternoons observation of shoreline outcrops both along the Goldstream and Columbia Rivers was accomplished by canoe. Follow up mapping then proceeded as time permitted. Despite this, much more mapping is still required in some areas.

Distances were measured by the use of a hip chain and information collected was transferred on to a 1:12,000 scale enlarged mylar topographic base map. The final geologic map 4 was prepared from this.

Sample Collection

Samples of talc and associated contact sulphides collected along the length of the talc trend as well as across various sections of this trend. These samples were labeled and examined under the stereo microscope. Results of lab tests are pending.

Representative samples of dolomite have also been collected throughout the map area. These samples were collected on the surface primarily along fresh outcrops exposed along roads, trails and power lines. The samples are generally typical except for samples #9 and 10. These particular samples were selected for further analysis due to discoloration or staining and are not typical of the whole body.

These collected samples were sent to Terramin Laboratories in Calgary for whole rock analysis. The results of this analysis are shown in table 1.

Further analysis in the form of brightness reflective tests are also pending.

CONCLUSION and RECOMMENDATIONS

Significant tonnage, possibly over **one billion tonnes** of high purity dolomitic marble exists in the study area. From the chemical analysis it would appear that this material would be highly suitable for the production of metallurgical steel flux. Comparison of the chemical analysis of this dolomite with that from Greece suggests the possibility of this dolomite being used as a source of magnesium metal. In addition, use as a filler material may also be possible depending on the brightness results.

Overall a market study should be undertaken followed by a more detailed sampling program. This should be followed by drilling to confirm depth extension of quality. The result of these programs would be to define a specific quarry site for a bulk test shipment to meet a specific end use.

Less obvious but possible large tonnages of talc may exist in the map area. The irregular width of this talc trend and the overburden in the area prevent the accurate determination of reserves.

In the meantime, mill floatation tests on the talc are currently being contemplated. Should the results of these tests prove favourable, a stripping and drilling program should be undertaken to confirm tonnage for possible further evaluation and a later bulk test shipment.

BIBLIOGRAPHY

- Hoy, T. 1979. Geology of the Goldstream area. British Columbia Ministry of Energy, Mines and Petroleum Resources, Bulletin 71.
- Keevil, Gordon A. 1977. Exploration Report of the Big Bend Claims, British Columbia assessment files, reference #06176.
- Read, P. B., and Brown, R. L., 1981. Columbia River fault zone: southeastern margin of the Shuswap and Monashee complexes, southern British Columbia, Canadian Journal of Earth Science Vol. 18, 1981.
- Wheeler, J.O. 1965. Big Bend map-area, British Columbia. Geological Survey of Canada, Paper 64-32.

ITEMIZED COST STATEMENT

Photo-enlargement of topographical map	107.63 r	eceipt	s attached
Topographical and geological maps	40.00		
Field supplies	149.19		
Meals in BC	90.84	••	••
Food for Field	314.71	**	••
Gas in B.C.	244.76		**
photocopies	13.24	••	tt
Slide development	22.40		:
Government publication	2.70		44
Whole rock geochemical analysis	577.75	**	••
Report preparation 5 days @ \$100.00/day	500.00		
May 10/87 2 Professional Geologists prospectin	g 400.00		
July 8 - 12/87 Field technician 5 days	500.00		
Professional Geologist 5 days @ \$200.00/day	1000.00		
July 18-26/87 Field technician 9 days	900.00		
Professional Geologist 9 days @ \$200.00/day	1800.00		
August 20-23 2 Professional Geologists-3 days	1200.00		

Totai

\$7863.22

AFFIDAVIT

I, Robert G. Komarechka P.Geol., with the assistance of Mark Sheviak, and from information acquired during preliminary prospecting trips of Gord Hurlburt P.Geol., Kory Koke P.Geol. and Brian Meyer P.Geol., hereby declare that I carried out work described in this report which was carried out between September 1986 to September 1987. The bulk of this work however, was done between July 10, 1987 to July 27, 1987.

Hobert G. Komareclan

CERTIFICATE

I, Robert G. Komarechka, of the City of Sudbury, in the Province of Ontario hereby certify as follows:

- 1. That I am a consulting geologist residing in Sudbury.
- 2. That I am a graduate, BSc. Geology major of Laurentian University of Sudbury, Ontario, a registered professional geologist in the Province of Alberta afiliated with the Canadian Council of Professional Engineers, and that I have been practising my profession for eight years.
- 3. That I am familiar with the geology of this area, having worked in Graham and McCulloch Creek areas for local prospectors and having prepared a report on the Geology of The Marble of the Bachelor Creek Area.

Robert G. Komarechka P.Geol.

D. Kommechae.

Dated at Sudbury, Ontario, this 30th day of November 1987.

