

Ministry of Energy, Mines & Petroleum Resources
Mining & Minerals Division
BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geochemical

TOTAL COST: \$6,700.00

AUTHOR(S): J. T. Shearer, M.Sc. P.Geo.

SIGNATURE(S): 

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):

YEAR OF WORK: 2017

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5655709

PROPERTY NAME: Monteith Pyrophyllite (Morris Zone)

CLAIM NAME(S) (on which the work was done): 1050244

COMMODITIES SOUGHT: Pyrophyllite

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: Alberni Mining Division

NTS/BCGS: 92L/3W (92L.014)

LATITUDE: 50 ° 07 '34 " LONGITUDE: 120 ° 17 '06 " (at centre of work)

OWNER(S):

1) J. T. Shearer 2)

MAILING ADDRESS:

Port Coquitlam, BC V3C 2Z1

OPERATOR(S) [who paid for the work]:

1) Same as above 2)

MAILING ADDRESS:

Same as above

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Claims underlain by west striking dextral to andesitic fragmental flows of the Lower Bonanza Group and the locus of intense silica and alumina alteration as a flow dome structure, several pyrophyllite ^{+ALUNITE} zones are peripheral to the silica core

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

Assessment Reports 12681, 11374

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil			
Silt			
Rock	16 rock	1050244	6,700 ⁰⁰
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
TOTAL COST:			\$6,700.00

GEOCHEMICAL ASSESSMENT REPORT

on the

MONTEITH BAY PYROPHYLLITE PROJECT

(Morris Showing Lot 988)

Kyuquot Sound Area, Vancouver Island

N.T.S. 92L/3W Lat. 50°07'40.66"N Long. 127°17'14.01W

Alberni M.D.

Event # 5655709

Owned by

HOMEGOLD RESOURCES LTD.

#5-2330 Tyner St

Port Coquitlam, BC

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Prepared by

J.T.SHEARER, M.Sc., P.Geo.

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July 8, 2017

Work Completed Between February 25, 2017 and July 8, 2017

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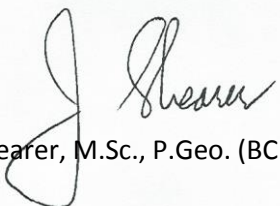
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SUMMARY

- 1) The Monteith Pyrophyllite Property consists of 6 claims (367.75ha) and is adjacent and surrounding the Monteith Bay Geyselite Quarry.
- 2) The Monteith Bay Geyselite Quarry started commercial production in 1999, providing high-grade silica rock to the Cement Plant in Delta operated by Tilbury (Lehigh Northwest) Cement. Approximately 300,000 tonnes have been mined to date.
- 3) Initial exploration of the geyselite resource began in the latter part of 1992, diamond drilling in early 1993 with a 10,000 tonne bulk sample taken in July 1993. A "Mine Development Certificate" was issued in early 1995. The production reclamation bond was posted in 1999.
- 4) Drill holes MB93-1 to 5, 5A, 6 to 13 totalled 414.38m (1359.5 ft.) of core which was assayed at the Tilbury Cement Plant for major elements. It was subsequently found that the x-ray sulphur values did not give the accuracy needed for Acid Rock Drainage/Metal Leaching (ARD/ML) concerns. Reserves were calculated in 1993 to be 1,200,000 tonnes above sea level (at 3m) of 97% SiO₂, 0.1% Na, 0.2% K, 1.5% Al₂O₃ and 0.2% Fe₂O₃ from section 140m to 300m.
- 5) Mining in 2000 and 2001, which exposed dyke material in the 140m section area, highlighted the need to address ARD/ML concerns and water discharge to the south bay. A fill-in diamond drill program of 6 holes totalling 147.52m (484ft) was initiated in December 2001 to provide more detail information in the 220m section and west areas of the quarry for future mine planning. This program brings the total drilling completed to 561.9m (1843.5 ft.).
- 6) Work in 2016 consisted of rock sampling and assaying for major and trace elements within the western pyrophyllite zone (Deer Trail).
- 7) Work in 2017 consisted of rock sampling and assaying for major and trace elements within the north area (Morris Zone) with detail specimens of massive alunite.

Respectfully submitted,



J. T. Shearer, M.Sc., P.Geo. (BC & Ontario)

INTRODUCTION

The Monteith and Deer Trail Pyrophyllite zones are adjacent and surrounding the Monteith Bay "Geyserite Quarry".

Mining at the Monteith Bay Quarry began in 1999 to provide high grade silica (>97% SiO₂) to the Tilbury Cement Plant in Delta, B.C. The quarry is owned by Monteith Bay Resources Ltd. a wholly owned subsidiary of Lehigh Cement (Tilbury).

The area was first documented in 1908 when the unusual concentrations of massive alunite and pyrophyllite were discovered. Minor pyrophyllite was produced after 1910 for the manufacture of drain tiles and refractory bricks in Victoria.

Sampling, geological mapping, diamond drilling and bulk commercial testing was completed between late 1992 and August 1993. The area disturbed for the bulk sample was reclaimed in 1996.

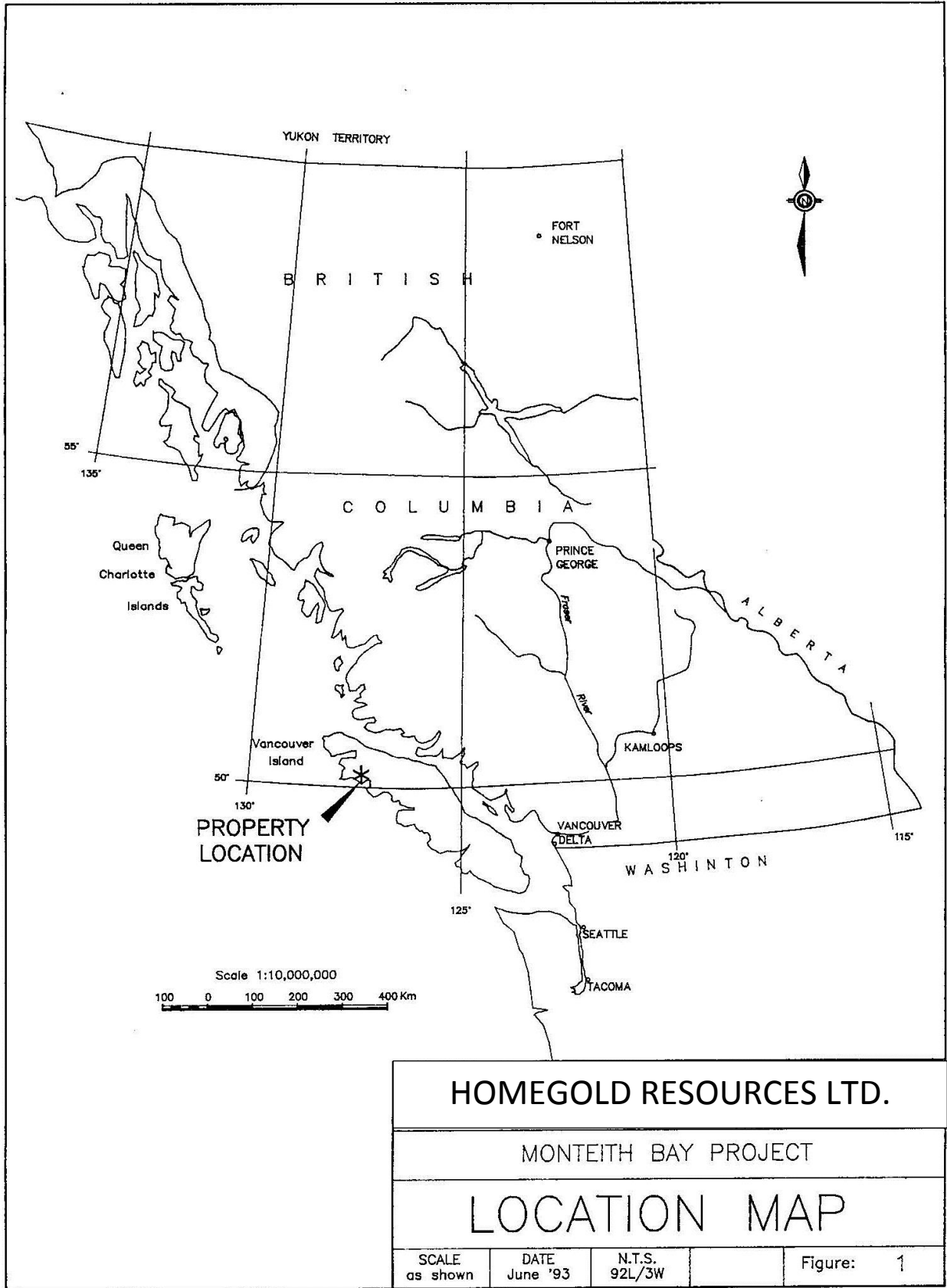
As mining proceeded, it became apparent that more attention was needed toward Acid Rock Drainage/Metal Leaching (ARD/ML) concerns. The oxidation of pyrite contained within the sericite/chlorite altered andesite and diorite dykes was producing more ARD/ML products than originally anticipated.

A program of Acid-base accounting, Kinetic tests, detailed receiving environment monitoring and tightening up of mining practices (hydrology and waste disposal methods) was started before the 2001 mining campaign. Mining usually occurs over a three to four month period. A mobile radial telescoping stacker mounted on a barge loader. The ocean going 7500-8000 tonne barges used for delivery to the Delta Cement Plant.

Preliminary exploration on the pyrophyllite deposits has resulted in the definition of a suitable source needed for the cement plant requirements and this source is located around the Easy Three and Easy "Eight" (converted 2005) mineral claims at Monteith Bay, Kyuquot Sound.

Portland cement manufacturing is a process of bringing together materials rich in lime (Ca), silica (Si), alumina (Al), iron (Fe), and gypsum (CaSO₄). These raw materials; limestone (CaO₃), shale and sand (silica), shale (alumina) and iron ore or industry mill scale (iron), are ground to extreme fineness for intimate mixing to meet precise chemistry. The pyrophyllite could replace both the current source of silica and alumina. The powder produced by grinding is then heated or "burned" in a rotary kiln to a temperature of 3,000 degrees, liquefying part of the powder and binding it together in what is called "clinker". Clinker consists of new components called hydraulic compounds. Hydraulic compounds enter into solution when water is added, forming a gel that binds to other minerals when set. The burned material clinker and added gypsum is then ground to extreme fineness. The resulting Portland cement becomes the "glue" to bond sand and aggregates together to form concrete.

Silica and alumina, the relatively minor constituents of Portland cement could be supplied from the Monteith Bay and Deer Trail Pyrophyllite property. The entire claim holdings cover about 60 hectares and are owned 100% by J. T. Shearer (Homegold Resources Ltd.). The company is committed to develop the deposit in a manner that does not cause significant environmental impact during operation or after mine closure.



The international market for pyrophyllite is small (\$US 130 million) compared with other mineral commodities. As a medium value (\$55/tonne) industrial mineral commodity, freight distances are limited and markets have regionalized and developed where mines and consumers are within three to four thousand kilometers.

Pyrophyllite is consumed in numerous markets and industry sectors where the major sectors are ceramics, refractories and insecticides. Since the latter two industry uses are declining and ceramics and other sectors are growing i.e., mineral fillers, cement and other miscellaneous uses, it is recommended that marketing efforts be focused on these as of increasing demand.

Industrial consumption in the short term is declining to relatively flat, as a result of the current recession. This is indicated by the following USBM figures:

World Pyrophyllite Production ('000 tonnes)

<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
2,190	2,333	2,440	2,228	2,168

(These figures are approximate since some pyrophyllite production is reported under talc.)

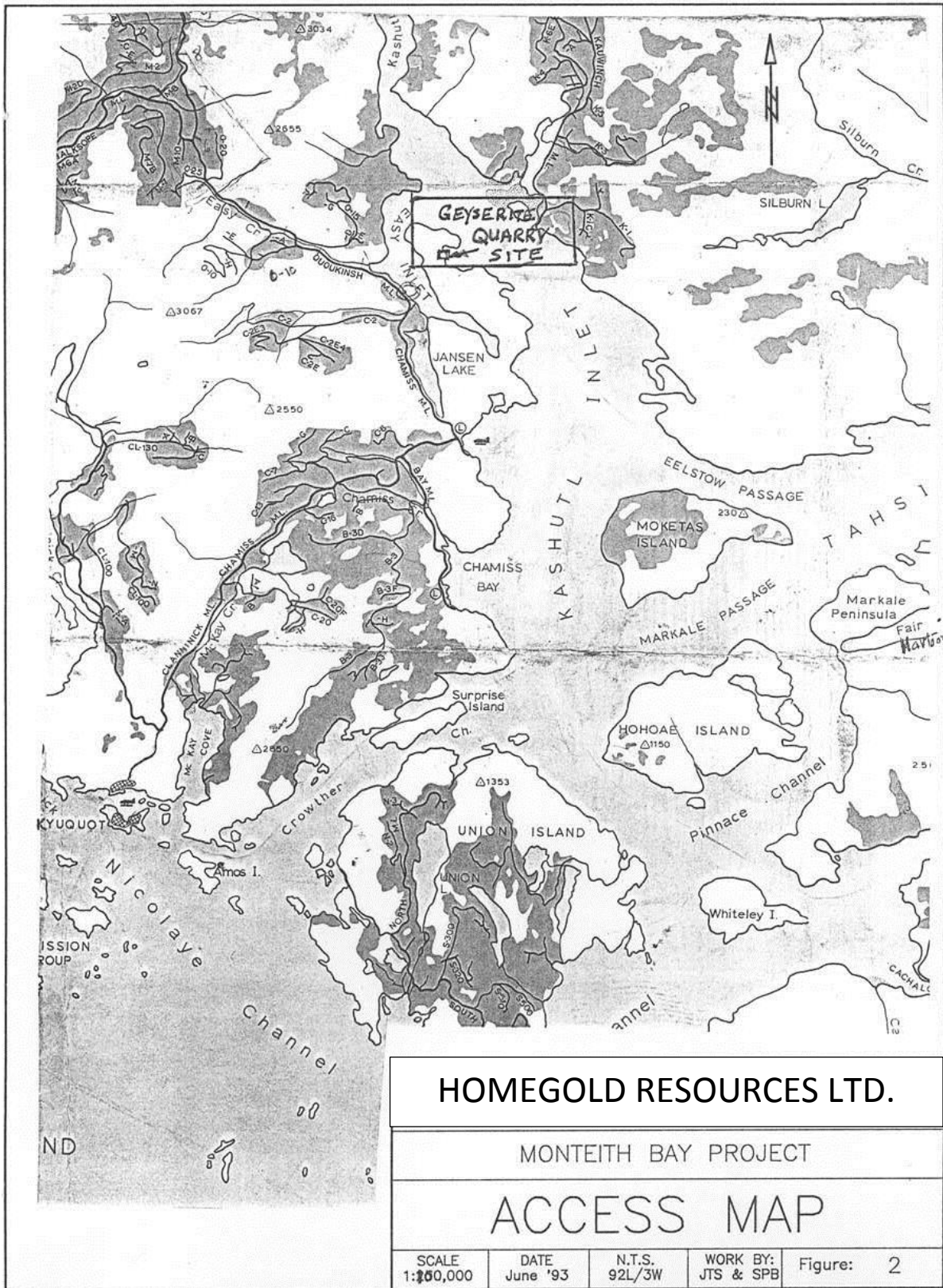
There is a general consensus that a modest level of pyrophyllite growth will take place as a result of the anticipated future expansion in the world economy.

While known internationally, Pyrophyllite is supplied and consumed in a few key regional markets in Asia (87.0%), North America (6.6%), and South America (5.8%). This "regionalized nature" is a function of:

- 1) The relatively low price of this commodity compared to high freight cost.
- 2) The need for deposits to be located near shipping facilities and/or manufacturers in order to develop a viable market share and
- 3) The global availability of many substitute products. For example, pyrophyllite, talc, steatite and soapstone all have common physical characteristics (layered structure, softness, whitish colour, soapy feel and pearly lustre) which in turn gives them common end uses.

In addition, unlike elemental metals each pyrophyllite deposit generally develops its own spectrum of products. One deposit may produce multiple products for multiple end uses which are totally exclusive from those products derived from a second pyrophyllite deposit. Generally there is not a clear definition of what pyrophyllite product. Producers are more inclined to think of themselves in terms of the markets they supply (e.g., refractory or ceramic raw material supplier) rather than calling themselves pyrophyllite producers.

Also, a high grade deposit of pyrophyllite is relatively rare compared with talc which is more commonly found. Even where high grade pyrophyllite exists, it rarely attains its theoretical composition (38.3% Al₂O₃, 66.7% SiO₂, 5% H₂O) but contains impurities such as, sericite, quartz, pyrite, chlorite, feldspar, haematite and magnetite.



Just as complex as the variable nature of pyrophyllite's chemistry is the number of products and markets of this commodity. The headers which follow list the key pyrophyllite market sectors. Under each header are descriptions about each market sector which also include a list of the component markets within that sector.

1) CERAMICS

- Used in the manufacture of floor and wall tile, sanitary ware, crockery and electrical porcelain. In the USA more than 80% is used in the manufacture of ceramic floor and wall tile. The major portion of the remaining 20% is used in electrical porcelain, whiteware and masonry.
- Pyrophyllite lowers the firing temperature, suppresses the deformation and cracking, increases whiteness, lowers firing shrinkage and improves thermal shock resistance.

2) REFRACTORIES

- Used in the manufacture of insulating firebrick, stiff plastic refractory compositions, castables, gunning mixes, kiln car refractories, kiln furniture and refractory mortars.
- Pyrophyllite gives permanent expansion on firing temperature, excellent thermal stability, minimal deformation under load at high temperatures, low bulk density, low thermal conductivity and good resistance to corrosion by molten metals and basic slags.

3) INSECTICIDES

- Used as a carrier for insecticides.
- Consumption has greatly decreased due to the banning of DDT.
- Chemical composition is not critical. The presence of sericite is preferred to more abrasive quartz and the occurrence of platy pyrophyllite is preferred to more massive varieties.

4) MINERAL FILLERS

- Used when finely ground and quartz free as a substitute for talc in certain filler applications including paint, plastics, rubber, cosmetics and jointing compounds.
- Paint is currently the largest filler market for pyrophyllite.

5) CEMENT

- Used in the manufacture of white cement.
- Pyrophyllite with low iron content assists in maintaining high whiteness levels.

6) OTHER

- Other uses of pyrophyllite include roofing material, stucco products, paper coatings, fiberglass, road markings, high pressure seals in synthetic diamond manufacture, wallboard, floor coverings, asphalt filler, anti-skid aggregates, auto body patch and more.

The following table indicates the relative size of these market sectors in the two largest markets namely, the USA and Japan and shows the percent increase/decrease of each market sector in Japan over a three year period.

Key Market Sector		1986	1986	1984	1987	1987	% Change Japan	
		USA ('000 T.)	USA (%)	Japan ('000 T.)	Japan ('000 T.)	Japan (%) '84 -'87		
CERAMICS	64	54		275	242	29	-12	
REFRACTORIES		20	17		357	244	29	-32
INSECTICIDES		13	11		145	140	17	- 3
MINERAL FILLER6	5							
CEMENT					60	91	11	52
OTHER		15	13		110	127	15	15
		====	====		====	====	====	====
TOTAL		118	100		947	844	100	-11

In both countries, ceramic, refractory and insecticide uses dominate consumption (over 75%). There is a decreasing trend in the consumption of refractories and insecticides (300,000 and 85,000 tonnes of refractories and insecticides respectively, were consumed by Japan in 1992) and an increasing trend in the consumption of cement and products in the other miscellaneous sectors. The two decreasing sectors have dropped in demand due to requirements for high steel quality and the reduction of insecticide carriers with the banning of DDT and other insecticides.

Considering the future outlook, industry experts feel that there will be a further decline in refractories and insecticides and that expansion will occur in the ceramic, cement and other sectors. Increase consumption of pyrophyllite will be related to increases in economic activity and the building industry, the development of new products (e.g., ceramics, extender-filler applications, etc.) and possible changes in environmental compliance (e.g., substitution by pyrophyllite away from tremolitic talc).

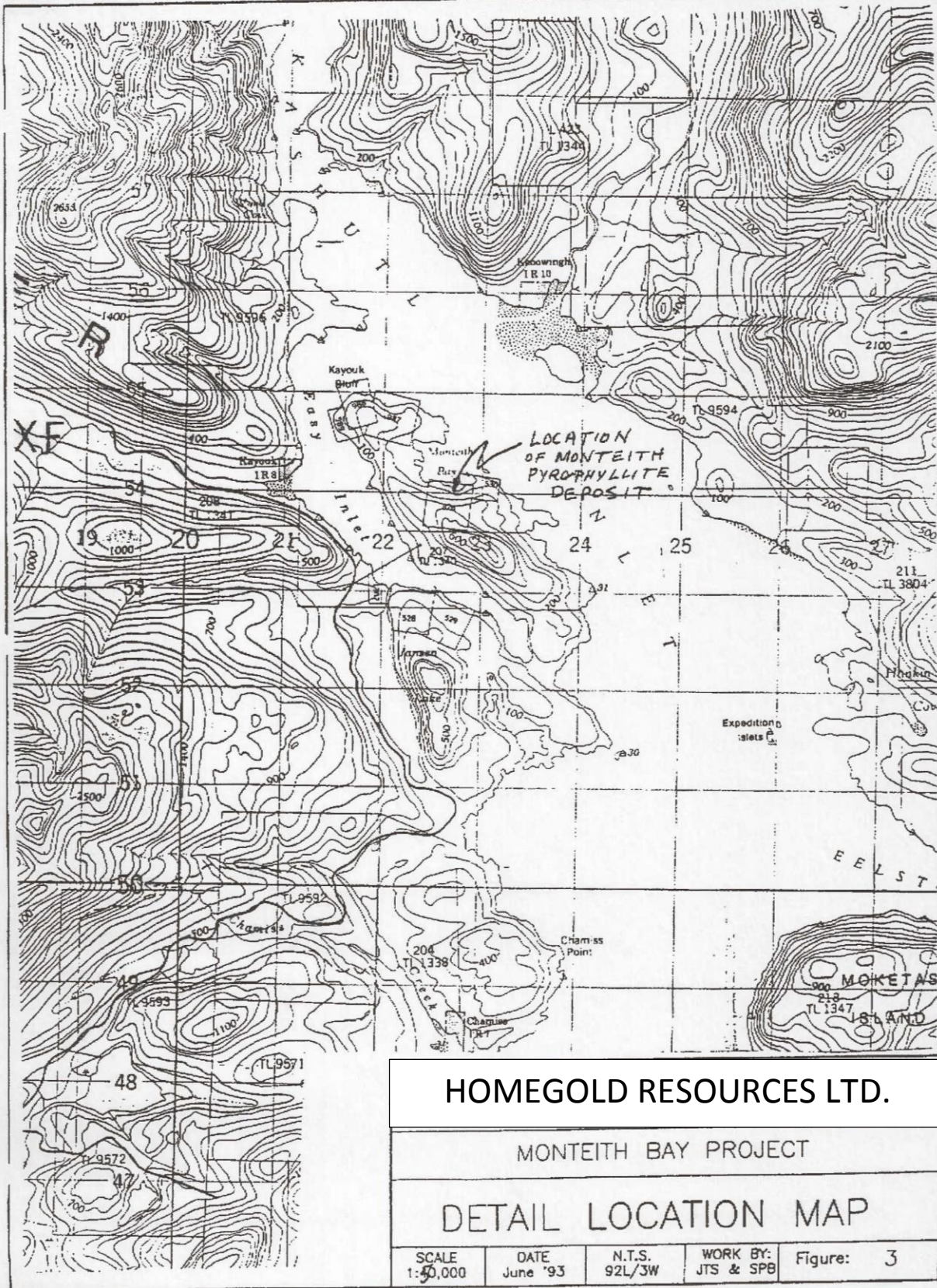
Pyrophyllite is a medium priced industrial mineral commodity ranging from \$US 40 to \$US 80/tonne FOB. The following are current price references:

- R.T. Vanderbuilt: \$40 - \$50/tonne and \$50 - \$70/tonne bagged in 50lb. bags in 2,000 lb. pallets for minus 200 - 325 mesh product.
- USBM: \$17/ton crude and \$41/ton processed (1988).
- Vancouver Agent: Landed in Vancouver \$US 100/tonne with 85 GE brightness and 99.9% less than 400 mesh.
- Korea Export Prices:

Refractory grade	\$US 58/ton.
Tile grade	\$US 28/ton.
Pottery grade	\$US 72/ton.

Brightness, fineness and packaging have maximum impact on adding value notwithstanding freight which may account for 2/3 of the delivered cost to a consumer.

In summary, the medium price level of pyrophyllite (compared to other minerals) is a disadvantage in developing international markets. However, this same price level may be an advantage when competing for customers in the Pacific Northwest and California, against Eastern USA producers.



LOCATION and ACCESS

The quarry is located on the western shores of Monteith Bay between Kashutl and Easy Inlets. There is no road access to the property. Access is normally by boat from Fair Harbour (a distance of 15km) or from the mouth of the Artlish River (a distance of 16 km).

Mining crews often stay at the Friell Lake Camp operated by Dennis and Shirley Siemens a distance of 6 km from the quarry site. The only other settlements are the INTERFOR Logging Camp at Chamiss Bay and the largely native community of Kyuquot about 14 km from the quarry site.

Mining is seasonal and usually takes about 3 to 4 months of drill/blast/crush/barge load to produce approximately 40,000 tonnes of product. A mobile barge with a radial telescoping staking conveyor is used to load 7500 to 8000 tonne barges at the quarry site.

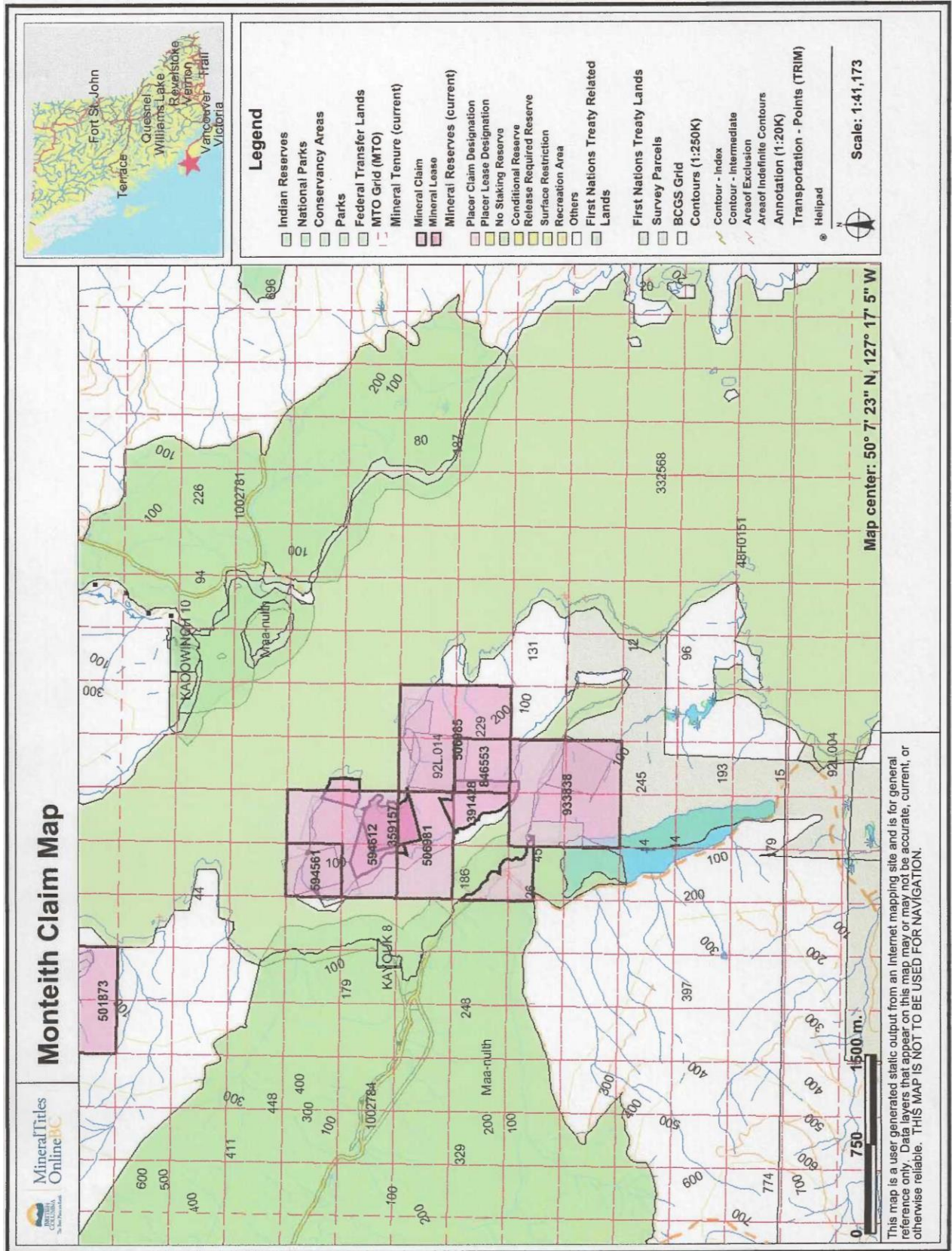


Figure 4 Claim Map

CLAIM STATUS

The Monteith Bay pyrophyllite property is located on Vancouver Island, a large island off the southwest coast of British Columbia, having a length of 480 km and width of 140 km. The Kyuquot Sound area is approximately 150 km northwest of Campbell River and 380 km northwest of Vancouver. Monteith Bay is a small sheltered bay located about halfway up the west side of Kashutl inlet, which is the northernmost inlet of Kyuquot Sound.

The main nearby centre is the village of Kyuquot located about 16 km south of Monteith Bay. Kyuquot is a mainly Native people's community with an area population of about 240 persons, with nearby non-Native residents totalling about 60. Fishing and small scale logging are the main work activities.

Topography of the area varies from a flat coastal plain along Rugged Point and Brooks Peninsula to the high peaks immediately east of Kyuquot. Monteith Bay is one of the small bays resulting from erosion controlled by major geological structures of the area.

Monteith Bay Resources owns 100% of the Too Easy mineral claim within the Alberni Mining Division, N.T.S. 92L/3W. The remaining claims are owned by Homegold Resources Ltd. and J.T. Shearer. A foreshore lease application to cover the barge-loading facility area has been granted.

TABLE 1
List of Claims

Name	Tenure #	Area (ha)	*Current Expiry Date	Registered Owner
Easy Six	391428	200.00	August 21, 2018	J. T. Shearer
	506981	41.44	July 24, 2019	J. T. Shearer
	506985	20.72	August 25, 2019	J. T. Shearer
Deer	594612	62.15	July 21, 2019	J. T. Shearer
Easy S	846553	20.72	August 21, 2019	J. T. Shearer
Morris	1050244	20.72	July 23, 2019	J. T. Shearer

Total 365.75 ha

* upon acceptance of assessment credits documented by this report.

Under the present status of mineral claims in British Columbia, the consideration of industrial minerals requires careful designation of the product end use. An industrial mineral is a rock or naturally occurring substance that can be mined and processed for its unique qualities and used for industrial purposes (as defined in the *Mineral Tenure Act*). It does not include "Quarry Resources". Quarry Resources includes earth, soil, marl, peat, sand and gravel, and rock, rip-rap and stone products that are used for construction purposes (as defined in the *Land Act*). Construction means the use of rock or other natural substances for roads, buildings, berms, breakwaters, runways, rip-rap and fills and includes crushed rock. Dimension stone means any rock or stone product that is cut or split on two or more sides, but does not include crushed rock.

Cash may be paid in lieu if no work is performed. Following revisions to the Mineral Tenures Act on July 1, 2012, claims bear the burden of \$5 per hectare for the initial two years, \$10 per hectare for year three and four, \$15 per hectare for year five and six and \$20 per hectare each year thereafter.

The project will extend from a barge dock at tide water on the east side of Monteith Bay along a 50-meter conveyor-crushing system to geysierite stockpiles and small quarry, a total distance of about 300 meters, with connecting roads to the Deertrail and Monteith pyrophyllite quarries.

The immediate Monteith Bay area has no previous residential developments nor are any planned. There are no surface facilities on the site at present. The general area is a very sparsely settled fjordland-mountainous region. Much of the upland area has been clear-cut logged in the recent past. Minor amounts of coastal 'A' frame logging was done in the late 1940s. The Monteith Bay area was logged from the shoreline between 1945 and 1948. The northwestern part of Monteith Bay was logged by a local hand logger about eight years ago.

Access to the property is by boat, barge and float-equipped aircraft. The nearest road head is at Fair Harbour or the mouth of the Artlish River. Fair Harbour is 32 km by road from Zeballos and a further 45 km to the Island Highway. The Artlish road is about 50 km shorter than the Zeballos route. A large self-propelled ferry was available at Fair Harbour under contract with Intercan Resources Ltd, an aquaculture operation in the southern Kyuquot Sound. Major logging camps are located in nearby Chamiss Bay (INTERIOR) and Ououkinsh Inlet (Coulson Logging).



Figure 5 Google Image of Area

HISTORY

The claims covering the pyrophyllite were staked in 1908. Nearby pyrophyllite deposits provided material for fire clay, pipe and other industrial uses for the B.C. Pottery Company and the San Juan Mining and Manufacturing Company from 1910 onward. The pilings of the pyrophyllite dock can still be seen on the south shore of Monteith Bay.

Ries and Keele (1912) tested samples taken from the stockpiles at the Victoria plant, and found "it burns steel hard at cone 1, and shows good refractiveness; in fact, there are few more refractory clays thus far known in the western provinces."

Comprehensive mapping of the deposits was completed in 1913 by C.H. Clapp of the Geological Survey of Canada, who suggested that the alunite and pyrophyllite may have been formed by hydrothermal replacement of volcanic rocks by ascending sulphuric solutions.

The deposit was examined late in World War II as a possible source of paper filler, and testing determined it to be a 'highly satisfactory ingredient of whiteware batches for both slip-cast and dry process tiles, electric insulators and tableware' (Minister of Mines, B.C., Annual Report 1947, page 223).

In 1952, the Crown-granted claims on the north end of the peninsula were purchased by St. Eugene Mining Corporation, who subsequently optioned the property to Westport Chemical Inc. during 1959-60. Drill testing was completed on the alunite-pyrophyllite zone, but these results are presently not available.

Two packsack holes were drilled to a depth of 25 feet in the alunite area by Falconbridge Nickel Mines, who acquired the property from St. Eugene in 1962. No sample data are available, but drill logs note the presence of quartz, which was colloform-banded and crustified, containing disseminated pyrite in altered volcanics.

The Kyuquot syndicate was formed in 1970 as a joint venture between Falconbridge and MacDonald Consultants Inc. to explore the area for Porphyry copper deposits. Mapping and soil-sampling were completed near Easy inlet.

Kennco Exploration staked claims over the Kayouk Peninsula-Jansen lake area in 1972 and completed geological mapping and a rock geochemical survey. Analyses were completed for Mo, Cu, Zn, Pb, Ag, Au, Ni and Co with anomalous results being attributed to sulfides in quartz veins. C.S. Ney, in describing a siliceous bluff on the northwest side of Monteith Bay, suggested a similarity with 'geyserite' or siliceous sinter typical of hot springs activity.

The B.C. Gold Syndicate, supervised by J.T. Shearer explored the Easy claims in 1980 by prospecting, soil-sampling and geological mapping to better evaluate the intense alteration zones as defined by the areas of pyrophyllization-alunite. No geochemically anomalous response was reported from the rock or soil-sampling. The Too Easy claim was located at this time.

Semco completed an examination of the Sockeye property for a large US based industrial mineral company in 1980 as part of a program on three pyrophyllite occurrences in the area. Some drilling apparently took place on the Sockeye showings but the results of this work is not presently available.

A preliminary report for Falconbridge Nickel Mines Ltd. was completed by Mr. G. Albino in June 1982 covering historical, exploratory and geological data from past examinations and including geological mapping and geochemical sampling as completed by Mr. Albino and Mr. C. Niles. Falconbridge optioned the Too Easy Claim at this time to the BC Gold Syndicate as negotiated by J.T. Shearer.

In 1983, 1,066 meters of diamond drilling in seven holes was completed by Falconbridge, in joint venture with Cal Denver Resources Ltd., on the northern tip of the peninsula. Detailed mineralogical and petrographic studies on the drill core delineated two recognizable alteration zones: (1) a quartz, alunite, pyrophyllite, kaolinite zone to a depth of approximately 140 meters below sea level (low pH zone) and (2) a gypsum with lesser anhydride zone below. An airborne geophysical survey of 128 line kilometres (3-frequency electromagnetics, magnetometer and VLF-EM) was carried out by Aerodat Ltd. in May 1985. The general magnetic trend appears to be east-northeasterly with several north-south orientations suggesting later structural overprinting.

Monteith Bay Resources Ltd. initiated the purchase of the Too Easy claim in 1992 and completed detail geological mapping and sampling in November 1992 to January 1993. Accurate topographic surveying, hydrographic survey of Monteith Bay, biological study of the area and detail diamond-drilling were done between January and March 1993. A 9,000-tonne bulk sample and further diamond-drilling were done between March and July 1993. The Tilbury cement plant processed the geyselite during August and September 1993. A large volume of information is now available on the characteristics of the geyselite with respect to an industrial size trial on grindability, power consumption of the roller mills, abrasion, feed handling, burnability, consistent chemistry and ultimately the strength of cement and customer satisfaction.

Geological mapping was on a remeasured baseline and grid lines established in 1984. The 1,050-meter baseline trends 320 from the south boundary of the Too Easy Claim to the tip of the peninsula about 500 meters north of the northern claim line. The cross-lines trend at 230° at 75-m intervals with stations at 25 meters. Accurate topographic contours were measured with a transit and EDM unit and compiled at a scale of 1:500 by Wright Parry Taylor & Fuller, B.C. Land Surveyors and Consulting Engineers.

The 1994 program consisted of sample collection, geological mapping and prospecting on the known pyrophyllite deposits in conjunction with a search of literature regarding the uses of pyrophyllite.

The samples were sent for multi-element analysis at the internal laboratory at the Tilbury Cement Plant in Delta which is an X-ray unit which is mainly used for internal quality control, clinker consistency and special batch orders.

In 2001, topographic pick up was completed on October 10 by Western Survey Service Ltd. of Campbell River using a 0.5 metre topographic contour. A final pick up was done after the last barge was loaded in early 2002.

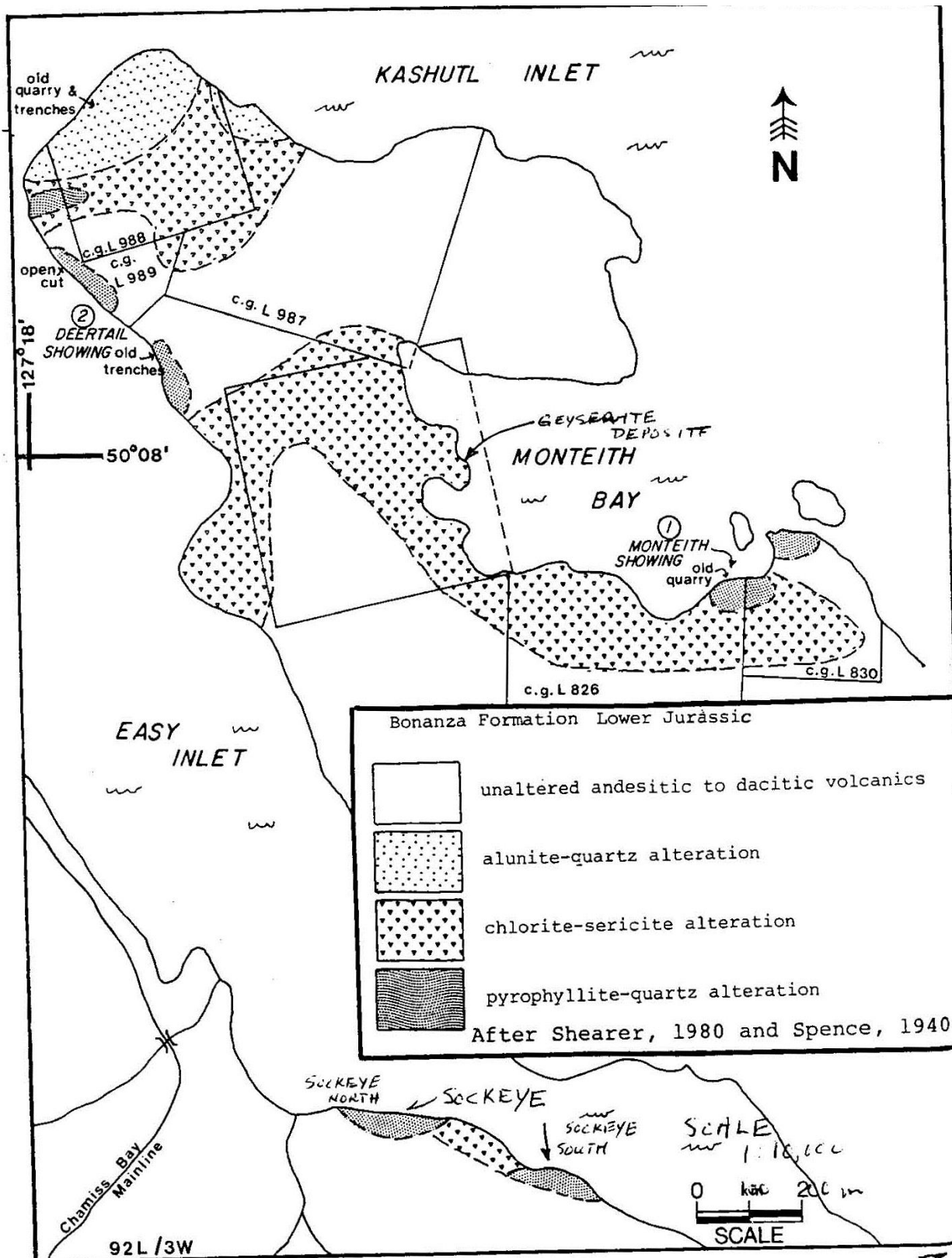


Figure 6 General Geology and Previous Prospecting

Geology

Between March and July 24, 1993 approximately 9,000 tonnes of geyselite were produced from an excavation and shipped by barge to the Tilbury cement plant in Delta, B.C. Considerable geological information was obtained from the new exposures. The cement plant processed the geyselite during August and September 1993. The geyselite was crushed on-site to 1 inch minus and the resulting product proved to be very uniform in its chemical composition. Detailed data are now available on the characteristics of the geyselite with respect to an industrial-size trial in respect to grindability, power consumption of the roller mills, abrasion, feed handling, burnability, ultimate strength of the resulting cement and customer satisfaction on the end-use construction site.

In early 1994 the adjacent pyrophyllite zones were examined and sampled in detail to define the consistency and grade of the aluminum content. There are three main pyrophyllite zones as follows:

- 1) Monteith Bay - old quarry area
- 2) Deertrail - on northeast side of Easy Inlet
- 3) Sockeye - on southwest side of Easy Inlet (North and South deposits)

The pyrophyllite zones are compact, dense and range from cream, white, pink or light gray to dark bluish grey when pyrite is present. Minor limonite imparts a yellow to reddish brown stain on the weathered surface. In thin section, the pyrophyllite flakes are about 0.01 millimetres in diameter; the material is readily crushed to a fine smooth powder.

On the Monteith showing (#1) the material is pinkish white and contains about 62 per cent pyrophyllite and 30 per cent quartz. On the Deertrail showing, the zone is white to grey and contains 71 per cent pyrophyllite and 20 per cent quartz. Chemical analyses of these two showings are as follows (in per cent) per Spence 1940:

	1	2
Silica	81.94	71.88
Aluminum	15.29	23.56
Ferric Oxide	0.11	0.14
Soda	0.40	0.36
Potash	0.50	0.43
H ₂ O>105°C	2.40	3.24

(Spence, 1940)

The old Monteith quarry floor is now overgrown with moss but mapping clearly demonstrates the flat floor with side walls up to 15 metres high. A large outcrop of pyrophyllite occurs 60 metres to the northeast closer to tidewater and appears to be a continuation of the main quarry zone. Typically the higher content of pyrophyllite (greater than 13% Al₂O₃) has fragmental appearance with dark brown fragments in a light greenish matrix. Analytical results suggest that more quartz-rich layers having a white to light grey ground mass occur intercalated with pyrophyllite-rich zones. The highest Al₂O₃ content is sample #40 at 18.8% Al₂O₃ and 79% SiO₂. Diamond drilling along the south wall of the quarry and to the east and west is recommended to establish the size of the zone.

The Deertrail Area sample dump at the high tide elevation is from the small sloughed trench in which a small zone of pyrophyllite is exposed. Southwest of this trench about 35 metres is the main outcrop of the Deertrail Deposit extending about 50 metres in an east-west direction composed of cliffs up to 15 m high. Previous samples 06 through 16 average 15.7% Al₂O₃ with very low total alkalis and low sulfur.

The Deertrail Deposit appears to contain more pyrophyllite than the Monteith Deposit or at least has less intercalated high silica layers. The Monteith samples #31-42 average 11.6% Al₂O₃ but with slightly higher total alkalis. This suggests that perhaps some of the silica-rich layers at the Monteith quarry contain low levels of alunite. The alteration zone along the beach north of the Deertrail Deposit (samples #27-30 and #43-58) contain much higher total alkali and very high sulfur indicating abundant alunite.

On Easy Six claim a large white weathering alteration zone (samples #52 and 53) have very high SiO₂ content with Al₂O₃ below 6% and negligible alkali and sulfur. This zone outcrops along the beach for over 60 metres and could be similar in size to the Monteith Bay geyselite (SiO₂) deposit presently under development.

Also for completeness of data presentation, the Sockeye Deposits were sampled in 1993. The Sockeye area based on present work can be subdivided into Sockeye North, sample #17-26 and Sockeye South, samples #54-57. Old maps indicate continuity between the two zones, however present exposures and the cursory nature of recent work precludes making this correlation at this time. An accurate orthophoto and basemap at a scale of 1:500 or more detailed would be necessary for accurate geological mapping. The Sockeye South Deposit is exposed in a vertical cliff at least 30 m. in height within a complex alteration system. No previous work appears to have been done on the Sockeye South Deposit. Samples on the Sockeye South average 15.5% Al₂O₃. In contrast the Sockeye North Deposit has been trenched and excavated along a zone of over 100 metres in length. This zone is cut by one main fault with dissimilar material occur above and below the shearing. This area is 150 metres from the main logging road west of Jansen Lake.

The average Al₂O₃ content of the samples taken in the Sockeye North Deposit #17-26 is 14.3% with elevated alkali suggesting the presence of alunite although SO₃ is relatively low. Detailed mineralogical studies are required to fully document the minerals present.

Work Program 2016

The 2016 program focussed on the geochemical characterization of the Deer Trail pyrophyllite zone and host rocks. The Deer Trail zone is located on the east shoreline of Easy Inlet to the west of Monteith Bay.

Assays were conducted by using an XRF Unit factory calibrated (Cert No. 0154-0557-1) on October 30, 2013, Instrument #540557 Type Olympus DPO-2000 Delta Premium. The instrument was calibrated using Alloy Certified reference materials by ARM1 and NIS5 standards. Only certified operators were employed and that were experienced in XRF assay procedures. Read times were 120 seconds or greater. Results are shown in Appendix III and plotted on Figure 8.

Brown weathering, fine grained "massive" brownish to light grey pyrophyllite (samples 1-3) contain 10.1 to 10.67% Al associated with Si values of 18.85 to 21.68% Si.

Samples 5 to 9 reflect a more geyseritic facies which contain less Al (ranging from 2.57 to 7.23% Al) but significantly higher silica (ranging from 25.15 to 38.84% Si). This geyserite zone could be a western extension of the zone mined at the Cement Rock Quarry (Lehigh Northwest) quarry in Monteith Bay.

GEOLOGY

(2002) Comprehensive geological mapping of Northern Vancouver Island was carried out during the late 1960's, the bulk of it by Dr. Jan Muller of the Geological Survey of Canada with major assistance by Dr. Kenneth Northcote of the B.C. Department of Mines. The results of their mapping are summarized on G.S.C. Map 1552A. More recently, mapping was carried out on map sheets NTS 97L/ 12 and 92L/ 11W by Hammock, J. L. et. al. in the 1990's. The results of this work, which was produced by the Geological Survey Branch of the British Columbia government is available in both digital and hard copy formats at a scale of 1:50,000.

The basement upon which the rocks of northern Vancouver Island were laid down is probably of Middle to Upper Paleozoic Age. At the time of deposition, the landmass, which now makes up Vancouver Island, was located in the equatorial regions of the Pacific Ocean. It consisted of felsic to basic volcanics and associated carbonates deposited in a submarine environment (Sicker Group Rocks).

In Upper Triassic time (about 200 million years ago), these basement rocks were covered by a series of pillow lavas and flows largely of basaltic composition. Total thicknesses extruded probably exceed 2,400 metres. These rocks are known as the Karmutsen Formation.

Following this period of basaltic volcanism, carbonate rocks [the Quatsino Limestone] accumulated to thicknesses of about 300 metres, although a much thinner section appears to be the rule north of and south of the type section at Quatsino Narrows.

Above the Quatsino there is generally found an elastic section of which appears to be of slightly different age and of varying composition in different parts of northern Vancouver Island. Depending on age, composition and location, it is known as the Parson Bay Formation or the Harbledown Formation. The Parson Bay is somewhat calcareous and of upper-most Triassic age while the Harbledown is more argillitic and of lower-most Jurassic age. Above the sedimentary section are the Jurassic Bonanza Volcanics, an assemblage of flows, tuffs and fragmentals largely of andesitic composition, but with minor basaltic and rhyodacitic sections.

During and after eruption of the Bonanza Volcanics, granitic bodies were emplaced within the Karmutsen-Quatsino-Bonanza sequence. These bodies ranged in size from dykes and small plugs to masses of batholithic proportions. Some of these intrusives formed the underground reservoirs, which broke through to surface to deposit the Bonanza Volcanics.

Reaction between these very hot, high-level vent zones and circulating groundwater and seawater led to the development of numerous zones of highly altered rock, within or adjacent to which are copper-gold-molybdenum deposits. The alteration zones are generally characterized by the presence of large amounts of silica, clay minerals, pyrite, pyrophyllite and laumontite. Of the various alteration zones, perhaps 90% are located in the belt immediately north of Rupert and Holberg Inlets particularly in the vicinity of the PEM100 Quarry and Pemberton Hills, which are about 40 miles north of Monteith Bay.

At some time during the latter part of the Jurassic, following a long period of northward drift, the Vancouver Island - Queen Charlotte Islands - Southeast Alaska terrane, apparently somewhat fragmented, collided with and fused to the North American Continent. Following this accretion, and a general elevation of the landscape probably caused related to the mechanics of collision, highland

portions of the terrane were eroded into basinal areas, forming continental transgressive sandstones of Cretaceous age, which included numerous coal measures, those of the Nanaimo basin being most notable. One of the small Lower Cretaceous basins of sandstone extends from the western edge of the Island Copper Mill area to the vicinity of Apple Bay, Quatsino Sound, approximately 50 km north of Monteith Bay.

(1994) The pyrophyllite deposits consist mainly of replacement silica and pyrophyllite with a chemical composition of approximately 50% to 80% Pyrophyllite and 20% to 50% extra SiO₂ they are in part paleo-hot-springs deposit of massive thickness, originally of gently dipping bedding, now somewhat faulted, bent and dipping to the south about forty to fifty degrees. Surface samples were taken systematically over the area. The correlation and analysis was done by the Tilbury Cement laboratory and Chemex Labs Ltd.

Triassic to early Jurassic volcanic-sedimentary sequences underlie the northwest of Vancouver Island. The Triassic Karmutsen Formation consists of a very thick basaltic succession of pillow lavas and breccias, amygdaloidal and massive flows with infrequent interbedded tuffaceous sediments forming the lower part of the sequence.

Conformably overlaying the Karmutsen formation are the Quatsino and Parson Bay Formations which are mainly calcareous and shaly sedimentary sequences. These sediments are in turn overlain by the Bonanza Group of early Jurassic age, consisting of flows and pyroclastics ranging in composition from rhyolite to basalt. The pyrophyllite deposits are hosted by Bonanza Group volcanics.

The geysirite deposit consists mainly of replacement silica normally in a concentration greater than ninety-six percent SiO₂. It is a paleo-hot-springs deposit of variable thickness, originally of gently dipping bedding, now somewhat faulted, bent and dipping to the east-southeast at about 10°. Surface samples were taken systematically over the area and cores were taken from drill holes to determine the extent of the deposit. The correlation and analysis was done by the Tilbury Cement laboratory and Chemex Labs Ltd.

Muller et al (1974) have measured the stratigraphic sections of the Bonanza volcanics, indicating an average thickness of 2,500 m. Rhyodacite and siliceous units in the Kyuquot Sound area appear often as welded tuffs.

The Bonanza volcanics in the Monteith Bay area consist of porphyritic andesite with hornblende and plagioclase phenocrysts in an often siliceous, aphanitic groundmass. Frequently amygdaloidal flows occur and flow breccias are observed commonly in more mafic units. Felsic rocks located on the west shore of Kayouk Peninsula are generally limited in occurrence, appear to be banded, containing quartz phenocrysts and possibly fragments of pumice.

The Kashutl Inlet intrusive suite is one of a small linear set of plutons which have been emplaced near surface, within related volcanics and pyroclastics. Epithermal precious metal mineralization is found to the north of Easy Inlet within these intrusions.

The volcanics in the Monteith Bay area consist mainly of porphyritic andesite with hornblende and plagioclase phenocrysts in an often siliceous, aphanitic groundmass. Frequently amygdaloidal flows occur and flow breccias are observed commonly in more mafic units. Felsic rocks located on the west shore of Kayouk Peninsula are generally limited in occurrence, appear to be banded, containing quartz

phenocrysts and possibly fragments of pumice. The geyselite deposit appears to be on one of these felsic sheets.

Late intrusive rocks occur as fine-grained porphyritic andesite to dykes and sills with a dark grey-green groundmass. These dikes are discordant to the bedding within the general area.

Narrow dark green, fine grained andesite dykes were observed in the western part of the area striking 104° and dipping 78° to the north. Bright apple-green massive sericite is associated with alteration of the margins the dykes between holes 93-7 and 93-8.

Now that mining has progressed and sufficient rock has been exposed, it is apparent that small pyritic zones of 'less altered' and "partially digested" geyselite are situated between holes 93-9 and 93-6. These pyrite zones are now well exposed and intersected by drill holes MB-01-01, MB-02-03 and MB-02-06. This material is of particular concern since it carries elevated sulphur values.

The lower pyritic unit is exposed on the small peninsula on the east side of the deposit at an elevation just below mean tide level. This lower vaulted contact dips approximately 10° to the east-southeast between holes 93-12 at an elevation of -5m to hole 93-13 at -15m elevation. However, the lower pyritic unit in Hole 93-08 is at +11m elevation and dips about 20° east toward Hole 93-12. Clearly there are local variations. Current exposures suggest that the lower pyritic unit has been faulted up in the eastern part of the deposit. A junction of several faults can be observed in the vicinity of hole 93-03 and 93-02 (above and north of the present settling ponds).

The central lens of 'less altered' and a partially digested" geyselite is partly controlled by a series of arcuate steeply dipping north trending fractures and faults. This series of faults was not exposed sufficiently before mining to be recognized in 1993. As plotted on Figure 6 (in pocket) the north trending faults juxtapose zones of clean geyselite with lenses of pyritic material. Parts of these pyritic zones contain semi-massive pyrite up to 30cm thick, which, in some cases, dip at about 40° to the north.

A good example of the "partially altered" geyselite occurs in hole MB-02-05 from 0 to 6.90m. The bleaching is controlled by fracturing alternating with short sections of 'unaltered" pyritic material.

Alteration

Rocks in the general Easy Inlet area are altered to various degrees, with pyrophyllite, silicic and advanced argillic zones present. The lack of structural control, of associated large intrusions and overall distribution of the alteration assemblages suggest that the silicification took place contemporaneously with volcanism before significant structural dislocation. The sericite-rich alteration in Monteith Bay appears to correlate directly with the emplacement and shearing of the later andesite dykes. The presence of chalcedonic silica, alunite and pyrophyllite indicate a probable near surface origin for part of the main phase of alteration.

A typical analysis of pyrophyllite from Monteith Bay is shown below.

A1203 %	CaO %	CR203 %	Fe203 %	K20 %	MgO %	MnO %
18.42	0.43	0.02	2.08	0.79	0.13	

Na20 %	P205 %	Si102 %	Ti02 %	Loss on Ignition	S % Total	S % Total	FeO %
0.57	0.28	70.54	1.23	5.85	100.35	0.061	1.02

WORK PROGRAM 2017

The 2017 program focussed on the geochemical characterization of the Morris alunite zone and host rocks. The Morris zone is located on the north shoreline along the entrance to Easy Inlet to the northwest of Monteith Bay.

Assays were conducted by using an XRF Unit factory calibrated (Cert No. 0154-0557-1) on October 30, 2013, Instrument #540557 Type Olympus DPO-2000 Delta Premium. The instrument was calibrated using Alloy Certified reference materials by ARM1 and NIS5 standards. Only certified operators were employed and that were experienced in XRF assay procedures. Read times were 120 seconds or greater. Results are shown in Appendix III and plotted on Figure 8.

The rocks hosting the Morris occurrence are west striking dacitic to andesitic fragmental flows of the Lower Jurassic Bonanza Group. Quartz diorite porphyry and andesitic dykes of the Early to Middle Jurassic Island Plutonic Suite intrude the volcanics. Pronounced quartz-sericite, quartz-alunite or quartz-pyrophyllite alteration occur along the contact zones. Pyrophyllite is prominent on Lots 988 (Morris) and 989 (Deertrail), occurring as compact dense masses ranging from cream, white, pink or light grey to dark bluish grey when pyrite is present. Minor limonite imparts a yellow to reddish brown stain on weathered surfaces.

In thin section pyrophyllite flakes are about 0.01 millimetre in diameter and are readily crushed to a smooth fine powder. On the Deertrail showing, the ore is white to grey and contains 71 per cent pyrophyllite and 20 per cent quartz. An analysis of the showing returned 71.88 per cent silica, 23.56 per cent aluminum, 0.14 per cent ferric oxide, 0.36 per cent soda, 0.43 per cent potash, 3.24 per cent H₂O greater than 105 degrees Celsius (CANMET Report 803, pages 53 to 135).

Small shipments of both pyrophyllite and alunite have been made from the area. Pyrophyllite was extracted (probably mostly from the neighbouring Monteith occurrence, 092L 117), between 1910 and 1914. Several hundred tonnes of ore was mixed with shale and used as a refractory for sewer pipe and fire-proofing material. It was also used as a polishing powder, soap and cleanser.

A report on samples taken from a stockpile in Victoria stated that "it burns steel-hard at Cone 1, and shows good refractiveness", and "is unsuited to replace foliated talc" (Geological Survey of Canada Memoir 24, page 148).

The deposit was examined during World War II as a possible source of paper filler, and testing determined it to be a "highly satisfactory ingredient of whiteware batches for both slip-cast and clay process tiles, electrical insulators and tableware (Minister of Mines Annual Report 1947, page 223).

In 1913, Clapp estimated 363,000 tonnes of pyrophyllite ore occurred in the 1.2 hectares on the Deertrail and Morris claims (Geological Survey of Canada Summary Report 1913, page 123).

Drilling in 1983 encountered mostly brecciated volcanics with strongly silicified zones of alunite and pyrophyllite with varying proportions of quartz and abundant pyrite (Assessment Report 11374).

Several hundred tonnes of ore were produced in 1937 (Open File 1988-19, page 7) but exact production figures are not available.

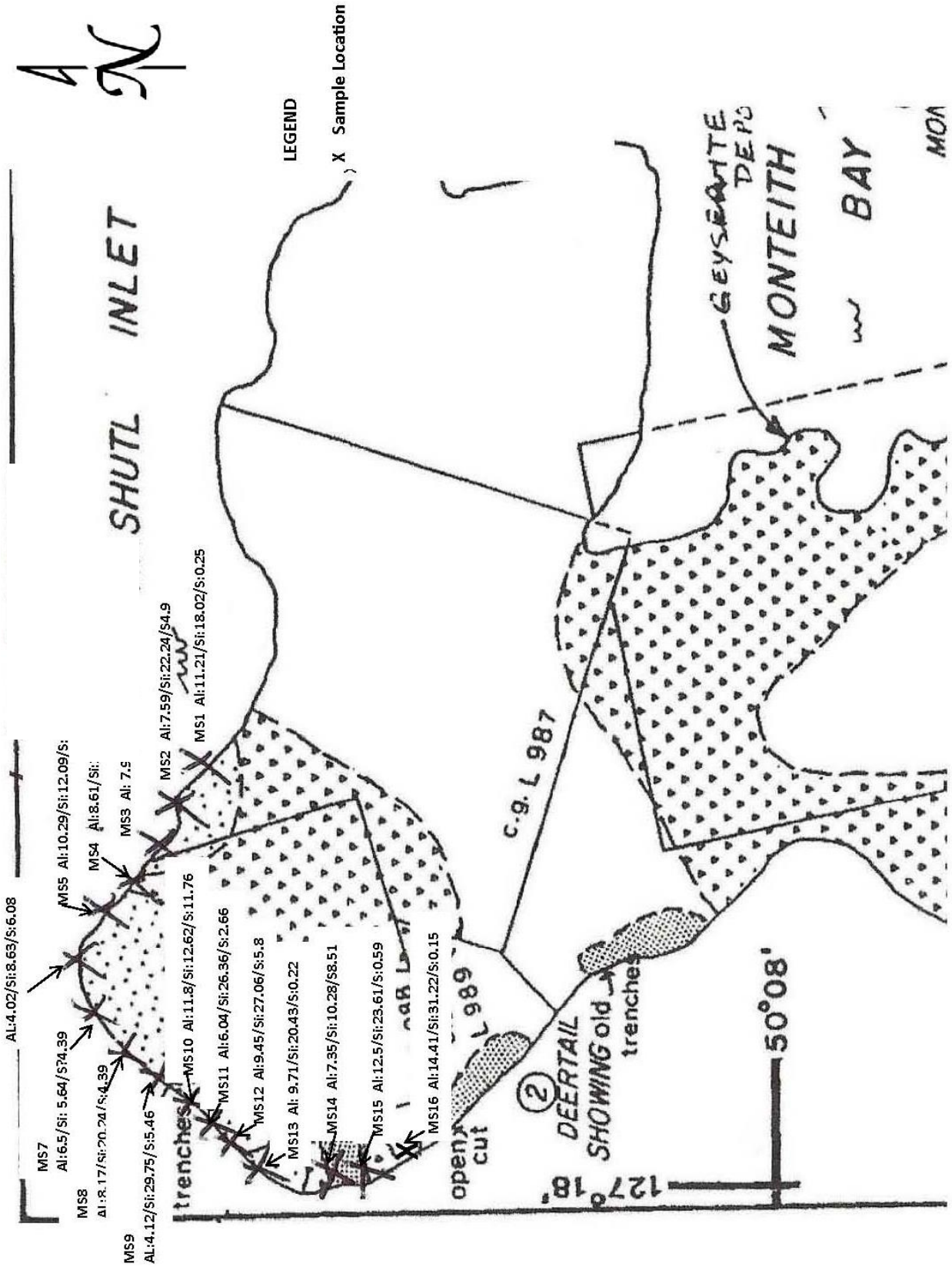


Figure 8 Sample Locations and Results

Samples collected in 2017 show a 9-specimen group of alunite-rich rocks as follows:

Sample	Al	Si	S
MS2	7.59	22.24	4.9
MS5	10.29	12.09	7.35
MS6	4.02	8.63	6.08
MS7	6.5	5.64	4.39
MS8	8.17	20.24	4.38
MS9	4.12	29.75	5.46
MS10	11.8	12.62	11.76
MS12	6.04	26.36	2.66
MS14	9.45	27.06	5.8

The remaining samples in the 2017 sample suite are pyrophyllite-silica altered rocks. These are what was expected from historical mapping but never sampled in recent years.

CONCLUSIONS AND RECOMMENDATIONS

The Monteith Pyrophyllite deposit is adjacent and surrounding the Monteith Bay Geyserate Quarry.

The 2017 program focussed on the geochemical characterization of the Morris alunite zone and host rocks. The Morris zone is located on the north shoreline along the entrance to Easy Inlet to the northwest of Monteith Bay.

The rocks hosting the Morris occurrence are west striking dacitic to andesitic fragmental flows of the Lower Jurassic Bonanza Group. Quartz diorite porphyry and andesitic dykes of the Early to Middle Jurassic Island Plutonic Suite intrude the volcanics. Pronounced quartz-sericite, quartz-alunite or quartz-pyrophyllite alteration occur along the contact zones. Pyrophyllite is prominent on Lots 988 (Morris) and 989 (Deertrail), occurring as compact dense masses ranging from cream, white, pink or light grey to dark bluish grey when pyrite is present. Minor limonite imparts a yellow to reddish brown stain on weathered surfaces.

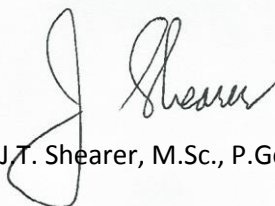
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The remaining samples in the 2017 sample suite are pyrophyllite-silica altered rocks. These are what was expected from historical mapping but never sampled in recent years.

Fill-in Diamond drilling was completed at the Monteith Bay Geyserate Quarry in December 2001 and January 2002 to give further definition to the ore reserve with special reference to sulphur values. Assaying on the 1993 drill core did not give accurate enough sulphur values to be used in current Acid Rock Drainage/Metal Leaching (ARD/ML) calculations.

Respectfully submitted



J.T. Shearer, M.Sc., P.Geo. (BC & Ontario)

COST OF FUTURE WORK

Program: A) Shallow percussion drilling to obtain fresh material for brightness tests.
B) Detailed geological mapping of each deposit.
C) Preliminary Diamond drilling on Monteith and Sockeye deposits
- 2000 foot program.

Program A	10 day Program	
	Wages and Benefits - 3 man crew	\$ 6,500
	Transportation, including boat	1,800
	Board and Meals	1,700
	Drill rental	500
	Analytical	3,000
	Report Preparation	<u>1,500</u>
	Subtotal Cost A -	\$15,000
Program B	25 day Program	
	Wages and Benefits - 4 man crew	\$30,000
	Transportation, including boat	3,400
	Board and Meals	5,000
	Base Map preparation	6,000
	Analytical	5,000
	Report Preparation	<u>2,000</u>
	Subtotal Cost B -	\$51,400
Program C	35 day Program with Gopher Drill, 2000 ft.	
	Wages and Benefits - 2 man supervision & core splitting	\$21,000
	Transportation, including boat	4,400
	Board and Meals	3,800
	Drill Contract 2000 @ \$23 per foot	46,000
	Analytical	12,000
	Mob & Demob.	5,000
	Report Preparation	<u>3,000</u>
	Subtotal Cost C -	\$95,200
	GRAND TOTAL	\$161,000

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2002:

Geological and Diamond Drilling Assessment Report on the Monteith Bay Geyselite Quarry, Mining Lease 359157, Kyuquot Sound Area, Vancouver Island, dated January 21, 2002, Assessment Report #26824

2015:

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Appendix I

Statement of Qualifications

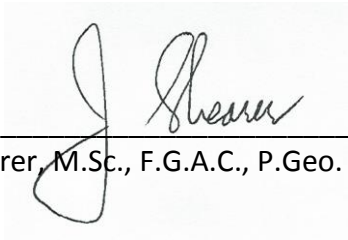
July 8, 2017

Appendix I
STATEMENT OF QUALIFICATIONS

I, JOHAN T. SHEARER, of 3572 Hamilton Street, in the City of Port Coquitlam, in the Province of British Columbia, do hereby certify:

1. I am a graduate of the University of British Columbia (B.Sc., 1973) in Honours Geology, and the University of London, Imperial College (M.Sc., 1977).
2. I have over 30 years' experience in exploration for base and precious metals and Industrial mineral commodities in the Cordillera of Western North America with such companies as McIntyre Mines Ltd., J.C. Stephen Explorations Ltd., Carolin Mines Ltd. and TRM Engineering Ltd.
3. I am a fellow in good standing of the Geological Association of Canada (Fellow No. F439) and I am a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (Member No. 19,279).
4. I am an independent consulting geologist employed since December 1986 by Homegold Resources Ltd. at #5-2330 Tyner St., Port Coquitlam, B.C.
5. I am the author of a report entitled "Geochemical Assessment Report on the Monteith Bay Pyrophyllite Project, Kyuquot Sound Area, Vancouver Island, B.C. Alberni M.D., dated July 8, 2017.
6. I have visited the property on June 7 to 10, 2016 and July 3 to 5, 2017. I have examined the surface exposures of the Pyrophyllite and collected systematic surface samples. I am familiar with the regional geology and geology of nearby properties. I have become familiar with previous work conducted in the Monteith Bay area by examining in detail the available reports, plans and sections and have discussed previous work with persons knowledgeable of the area.
7. I own a direct interest in the property described herein

Dated at Vancouver, British Columbia, this 8th of July, 2017



J.T. Shearer, M.Sc., F.G.A.C., P.Geo.

Appendix II

Statement of Costs

July 8, 2017

Appendix II
COST STATEMENT
MONTEITH BAY PYROPHYLLITE PROJECT 2017

		Without HST
Wages		
J. T. Shearer, M.Sc., P.Geo., Geologist 3 days @ \$700/day, July, 3, 4 + 5, 2017		\$ 2,100.00
	Wages Sub-total	\$ 2,100.00
Expenses		
Truck 1, Rental, fully equipped 4x4, 3 days @ \$120/day		360.00
Truck 2, Fully equipped 4x4, 2 days @ \$120/day		240.00
Fuel, 1640km		390.00
Ferries – Vancouver to Nanaimo – Return		210.00
Hotel, 2 nights, 2 people		320.00
Boat Rental and Operator		890.00
K. Hannan, Helper, 3 days @ \$300/day, July 3-5, 2017		900.00
B. Howich, Prospector, 2 days @ \$300/day, July 3 + 4, 2017		600.00
Food/Supplies, 5 person days @ \$50/day		250.00
Rental and XRF Assays and Certified Operator		650.00
Computer Mapping and Data Interpretation		350.00
Report Preparation		1,200.00
Word Processing and Reproduction		350.00
	Expenses Sub-total	\$ 6,710.00
	Grand Total	\$ 8,810.00

Event #	5655709
Date Filed	July 8, 2017
Amount Filed	\$6,700.00
PAC Filed	\$1,824.04
Total Filed	\$8,524.04

Appendix III

XRF Assay Results

July 8, 2017

Monteith Bay XRF 2017-07-05

Date	Sample #	Mg	Mg +/-	Al	Al +/-	Si	Si +/-	P	P +/-	S	S +/-	Cl	Cl +/-	K	K +/-	Ca	Ca +/-	Ti
05/07/2017	MS1	ND		11.21	0.11	18.02	0.12	0.4717	0.0222	0.2524	0.0045	ND		ND		ND		0.5435
05/07/2017	MS2	ND		7.59	0.08	22.24	0.12	0.5277	0.0208	4.9205	0.0279	ND		1.4494	0.0095	ND		0.2803
05/07/2017	MS3	ND		7.98	0.09	24.95	0.16	1.1091	0.0311	0.5826	0.007	ND		0.4643	0.006	ND		0.6052
05/07/2017	MS4	2.04	0.31	8.61	0.1	21.89	0.15	0.6618	0.0262	0.2079	0.0042	ND		0.3798	0.005	4.9317	0.035	0.647
05/07/2017	MS5	ND		10.29	0.09	12.09	0.08	1.116	0.024	7.3452	0.0431	ND		1.9487	0.0127	ND		0.532
05/07/2017	MS6	ND		4.02	0.09	8.63	0.08	0.5294	0.0279	6.08	0.05	ND		2.455	0.0228	ND		0.3332
05/07/2017	MS7	ND		6.5	0.08	5.644	0.0446	0.5218	0.0174	4.3865	0.0293	4.74	0.06	2.8923	0.0197	ND		0.1644
05/07/2017	MS8	ND		8.17	0.08	20.24	0.12	0.4122	0.0211	4.3872	0.0266	ND		1.8347	0.0121	ND		0.3644
05/07/2017	MS9	ND		4.12	0.06	29.75	0.16	0.3301	0.0231	5.46	0.0318	ND		1.9052	0.0124	ND		0.1605
05/07/2017	MS10	ND		11.8	0.1	12.62	0.08	0.5621	0.0223	11.76	0.07	ND		4.2895	0.0256	ND		0.5915
05/07/2017	MS11	ND		6.04	0.07	26.36	0.14	0.2419	0.0195	2.6629	0.016	ND		0.5989	0.0055	ND		0.3865
05/07/2017	MS12	ND		9.45	0.09	27.06	0.14	0.3199	0.0239	5.8026	0.0325	ND		2.5366	0.0154	ND		0.4145
05/07/2017	MS13	ND		9.71	0.08	20.43	0.11	0.1166	0.0153	0.2172	0.0035	ND		2.5292	0.0147	ND		0.6147
05/07/2017	MS14	ND		7.35	0.1	10.28	0.08	0.4064	0.0226	8.51	0.06	ND		2.9181	0.022	ND		0.6429
05/07/2017	MS15	ND		12.5	0.1	25.61	0.13	0.3013	0.0211	0.5873	0.006	ND		ND		ND		0.1064
05/07/2017	MS16	ND		14.41	0.09	31.22	0.14	0.2112	0.0199	0.1471	0.0036	ND		0.161	0.0046	ND		1.072

Ti +/-	V	V +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-	Co	Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-	As	As +/-
0.0235	ND		ND		ND		3.0036	0.0276	0.028	0.0044	ND		0.0028	0.0007	ND		0.0085	0.0005
0.0184	0.0416	0.008	ND		ND		1.6141	0.0167	ND		ND		ND		ND		0.0015	0.0003
0.0282	ND		ND		ND		0.3555	0.0084	ND		ND		0.0025	0.0007	ND		ND	
0.0253	ND		ND		0.1078	0.0055	8.48	0.07	ND		ND		0.0078	0.001	0.0095	0.0008	0.0015	0.0004
0.023	0.044	0.0089	ND		ND		0.3818	0.0077	ND		ND		ND		ND		0.0019	0.0003
0.0262	ND		ND		ND		0.4484	0.011	ND		ND		0.0026	0.0008	0.0015	0.0005	0.0015	0.0004
0.0165	0.0262	0.0077	ND		ND		0.1383	0.0047	ND		ND		ND		ND		0.0015	0.0003
0.0214	0.0362	0.0088	ND		ND		0.6024	0.0101	ND		ND		ND		ND		0.0014	0.0003
0.0183	ND		ND		ND		1.2923	0.0161	ND		ND		ND		ND		0.0014	0.0003
0.0265	0.038	0.01	ND		ND		0.1378	0.0052	ND		ND		ND		ND		0.0016	0.0003
0.0211	0.0357	0.0086	ND		ND		0.0665	0.0035	ND		ND		ND		ND		ND	
0.0245	0.0363	0.0099	ND		ND		0.1145	0.0049	ND		ND		ND		ND		ND	
0.0219	ND		0.0155	0.0034	ND		3.1833	0.0251	ND		0.0031	0.0008	0.005	0.0007	0.0019	0.0004	0.001	0.0003
0.0292	0.0441	0.0109	ND		ND		0.3754	0.009	ND		ND		ND		ND		ND	
0.0159	ND		ND		ND		0.6252	0.01	ND		ND		ND		ND		0.0012	0.0003
0.0302	0.0439	0.0101	ND		ND		0.1584	0.005	ND		ND		ND		ND		ND	

Se	Se +/-	Rb	Rb +/-	Sr	Sr +/-	Y	Y +/-	Zr	Zr +/-	Mo	Mo +/-	Ag	Ag +/-	Cd	Cd +/-	Sn	Sn +/-	Sb	Sb +/-	W	W +/-
ND		ND		0.0146	0.0003	0.0128	0.0003	0.0595	0.0006	0.001	0.0002	ND		ND		ND		ND		0.0065	0.0011
ND		ND		0.0542	0.0006	0.0027	0.0002	0.0336	0.0004	ND		ND		ND		ND		ND		ND	
ND		ND		0.5224	0.0037	0.0037	0.0002	0.0539	0.0008	0.0014	0.0002	ND		ND		ND		ND		ND	
ND		0.001	0.0002	0.0479	0.0007	0.0031	0.0002	0.0162	0.0004	ND		ND		ND		ND		ND		ND	
ND		ND		0.0968	0.0008	0.0005	0.0001	0.0136	0.0003	0.0008	0.0002	ND		ND		ND		ND		ND	
ND		0.0006	0.0001	0.0315	0.0005	0.0008	0.0002	0.0321	0.0006	0.0012	0.0002	ND		ND		ND		ND		ND	
ND		0.0014	0.0001	0.0363	0.0004	0.0009	0.0001	0.0208	0.0003	ND		ND		ND		ND		ND		ND	
ND		0.0011	0.0001	0.0223	0.0003	0.0069	0.0002	0.0368	0.0004	ND		ND		ND		ND		ND		ND	
ND		0.0004	0.0001	0.0192	0.0003	0.0011	0.0002	0.0229	0.0004	0.0007	0.0002	ND		ND		ND		ND		ND	
ND		ND		0.0497	0.0006	0.0023	0.0002	0.0361	0.0005	ND		ND		ND		ND		ND		ND	
ND		ND		0.0182	0.0003	0.0022	0.0001	0.0222	0.0003	ND		ND		ND		ND		ND		ND	
ND		0.0005	0.0001	0.0231	0.0004	0.003	0.0002	0.0236	0.0004	ND		ND		ND		ND		ND		ND	
ND		0.0061	0.0002	0.0012	0.0001	0.0088	0.0002	0.0208	0.0003	ND		ND		ND		ND		ND		ND	
ND		ND		0.0403	0.0006	0.0021	0.0002	0.0242	0.0004	0.0009	0.0002	ND		ND		ND		ND		ND	
ND		ND		0.0097	0.0002	0.0013	0.0001	0.0077	0.0002	0.0007	0.0002	ND		ND		ND		ND		ND	
ND		0.0013	0.0001	0.0613	0.0006	0.006	0.0002	0.0535	0.0005	ND		ND		ND		ND		ND		ND	

Hg	Hg +/-	Pb	Pb +/-	Bi	Bi +/-	Th	Th +/-	U	U +/-	LE	LE +/-	Instrument SN	Model
0.0028	0.0005	0.0052	0.0004	ND		ND		ND		66.36	0.22	540557	Delta Professional
ND		0.0026	0.0003	ND		ND		ND		61.23	0.21	540557	Delta Professional
ND		0.0049	0.0005	ND		0.0052	0.0011	0.0046	0.001	63.35	0.24	540557	Delta Professional
ND		0.0051	0.0005	ND		0.0026	0.0008	ND		51.95	0.33	540557	Delta Professional
ND		0.0056	0.0004	ND		ND		ND		66.14	0.2	540557	Delta Professional
ND		0.0061	0.0005	ND		0.0029	0.0008	ND		77.43	0.21	540557	Delta Professional
ND		0.0037	0.0003	ND		ND		ND		74.92	0.17	540557	Delta Professional
ND		0.0046	0.0004	ND		ND		ND		63.87	0.21	540557	Delta Professional
ND		0.0045	0.0004	ND		0.0021	0.0006	ND		56.93	0.23	540557	Delta Professional
ND		0.004	0.0004	ND		ND		ND		58.11	0.23	540557	Delta Professional
ND		0.0034	0.0003	ND		ND		ND		63.56	0.19	540557	Delta Professional
ND		0.0041	0.0004	ND		ND		ND		54.21	0.24	540557	Delta Professional
ND		0.0034	0.0003	ND		ND		ND		63.13	0.2	540557	Delta Professional
ND		0.0054	0.0004	ND		ND		ND		69.41	0.22	540557	Delta Professional
ND		0.0026	0.0003	ND		ND		ND		60.25	0.2	540557	Delta Professional
ND		0.0033	0.0003	ND		ND		ND		52.46	0.2	540557	Delta Professional

Appendix IV

Sample Descriptions

July 21, 2016

**Appendix IV
Rock Descriptions
Monteith Bay – Easy Inlet**

Sample #	Location	Description	S %
MS1	621740.29E 5555122.90N	Brownish weathering, light grey to whitish, fine grained, fine knobby texture on weatered surface e, fragmental source rock	0.58
MS2	621588.12E 5555143.83N	Very rusty weatering, fractured, stringingly white rock, fine grained, dense, massive, dense, alunite rock	8.51
MS3	621664.88E 5555146.66N	Very rusty weatering, pronounced coarse knobby weatering, minor internal rusty fractures, light grey, fine grained, slightly slabby joints, alunite rock fragmented	0.2
MS4	621628.36E 5555152.66N	Light grey weathering, wome white, light grey, very fine grained, slightly fine grained sugary texture, silica-alunite rock	5.8
MS5	621577.53E 5555153.54N	Light brown weathering, elongate druzy vugs oriented parallel, white overall, fine grained, subtle sheen to rock, white ghost fragments, highly altered, silica rich, minor alunite	2.66
MS6	621520.79E 5555129.24N	Very white weatering, minor rusty fractures on broken surfaces, very fine grained, fine sugary texture, tiny 0.1mm vugs, silica rich (geyserite) and abundant alunite	11.76
MS7	621469.05E 5555114.27N	Extremely rusty, pitted surface, very fine grained, sugary to porcelanic fragments, alunite-silica rock, fragmental provenance	5.46
MS8	621446.33E 5555056.90N	Slightly rusty weathering, light grey to white, fery fine grained, minor white ghosts of 1mm feldspar relict crystals, alunite	4.38
MS9	621417.09E 5555021.18N	Regular fracture pattern at right angles, light grey, very fine grained, porcelanic appearance, alunite abundant? Sparse iron oxide, silica rich	4.38
MS10	621407.08E 5554988.34N	Slightly rusty weathering but otherwise white, light grey, fine grained, fractured, massive conchoidal chips, altered alunite rock	6.08
MS11	621384.29E 5554968.81N	Light brown weathering, white alunite rock, slickensides, slight porcelain appearance	7.35
MS12	621366.29E 5554960.31N	Brownish weathering – light grey to slightly greenish tinge, sugary texture to fine grained, altered volcanic	0.21
MS13	621360.77E 5554932.89N	Light grey weathering, fined grained, grey massive quartz	0.58
MS14	621368.17E 5554860.37N	Rusty weathering, trace sparse pyrite, very fine grained, light grey, possible rhyolite but more probably altered andesite, altered to silica-alunite rock	4.9
MS15	621392.78E 5554818.46N	Brown, lichen covered, white sugary testure, highly altered volcanic, abundant pyrophyllite	0.25
MS16	621426.54E 5554778.73N	Light brown weatering, healed fractures, fine grained, light grey, abundant altered feldspar crystals, crystal tuff	0.14