

**GEOLOGICAL, PROSPECTING and  
DIAMOND DRILLING ASSESSMENT  
REPORT**

**ON THE**

**SMILEY 7 - 16 CLAIMS (GROUP 2)  
WHITE LIMESTONE PROJECT**

**(TENURE # 393748 - 384650, 384326 - 384329, 391657 &  
391658)**

**BEAVER COVE AREA**

**VANCOUVER ISLAND, B.C.**

**NANAIMO M.D., N.T.S. 92L/10W (92L.046 +056)**

**LATITUDE 50°30'30", LONGITUDE 126°53'30"**

**RECEIVED**  
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For

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by

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GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

26,783

February 1, 2002

Fieldwork completed between March 1, 2001 & January 28, 2002

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**SUMMARY**

- 1) The Smiley 7-16 (total 10 units) Mineral Claims were located in 2001 and 2002 to cover an extensive zone of bleached white limestone.
- 2) The claims are near Beaver Cove about 20 km south of Port McNeil near the deep water dock of CanFor Logging. It is reported that marble was quarried from the central portion of this deposit in 1884 at a point 2.8 km southwest of Beaver Cove on the Tsulton River.
- 3) Previous work for high brightness filler CaCO<sub>3</sub> includes limited work done for Industrial Fillers (Pluess Stauffer, OMYA) in the general area and marble exploration near Bonanza Lake in the late 1980's.
- 4) The claims are underlain by a gently dipping monocline of Quatsino Formation Limestone, which has been marbled and bleached by the intrusion of satelitic stocks of the Jurassic Nimpkish batholith.

- 5) Sampling by McCammon in 1968 reported CaO content along the north part of Smiley 14 Claim of:

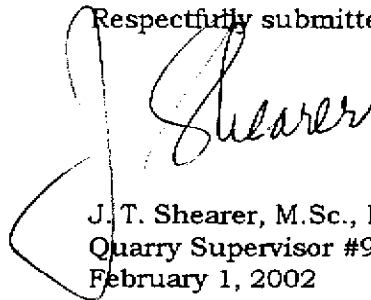
CaO	MgO	Insol (SiO <sub>2</sub> )	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MnO	P <sub>2</sub> O <sub>5</sub>	S	LOI
55.17	0.08	1.22	0.30	0.13	0.023	0.02	0.01	43.21
(98.2% CaCO <sub>3</sub> )								

and a sample of white limestone from the south end of Smiley 11 & 12 Claims of:

CaO	MgO	Insol (SiO <sub>2</sub> )	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MnO	P <sub>2</sub> O <sub>5</sub>	S	LOI
54.34	0.34	1.04	0.12	0.16	--	--	0.02	--

- 6) One short diamond drill hole was completed along the West Main Logging Road Quarry of TimberWest in 2001 for a total of 24.38 (80 ft.).
- 7) High brightness (up to 91.21%) and purity (up to 56% CaO)(99.68% CaCO<sub>3</sub>) have been obtained from preliminary sampling to the west of the claims (Shearer, 2001).
- 8) Future work should include (a) detail geological mapping along the limestone trend, (b) reconnaissance magnetometer lines throughout the property to identify the presence of blind intrusive bodies or dykes and (c) wide spaced short diamond drill holes along the intrusive contact to test for the continuity of the higher brightness zones north of the Tsulton River.

Respectfully submitted,



J. T. Shearer, M.Sc., P.Geo., FSEG,  
 Quarry Supervisor #98-3550  
 February 1, 2002



## **INTRODUCTION**

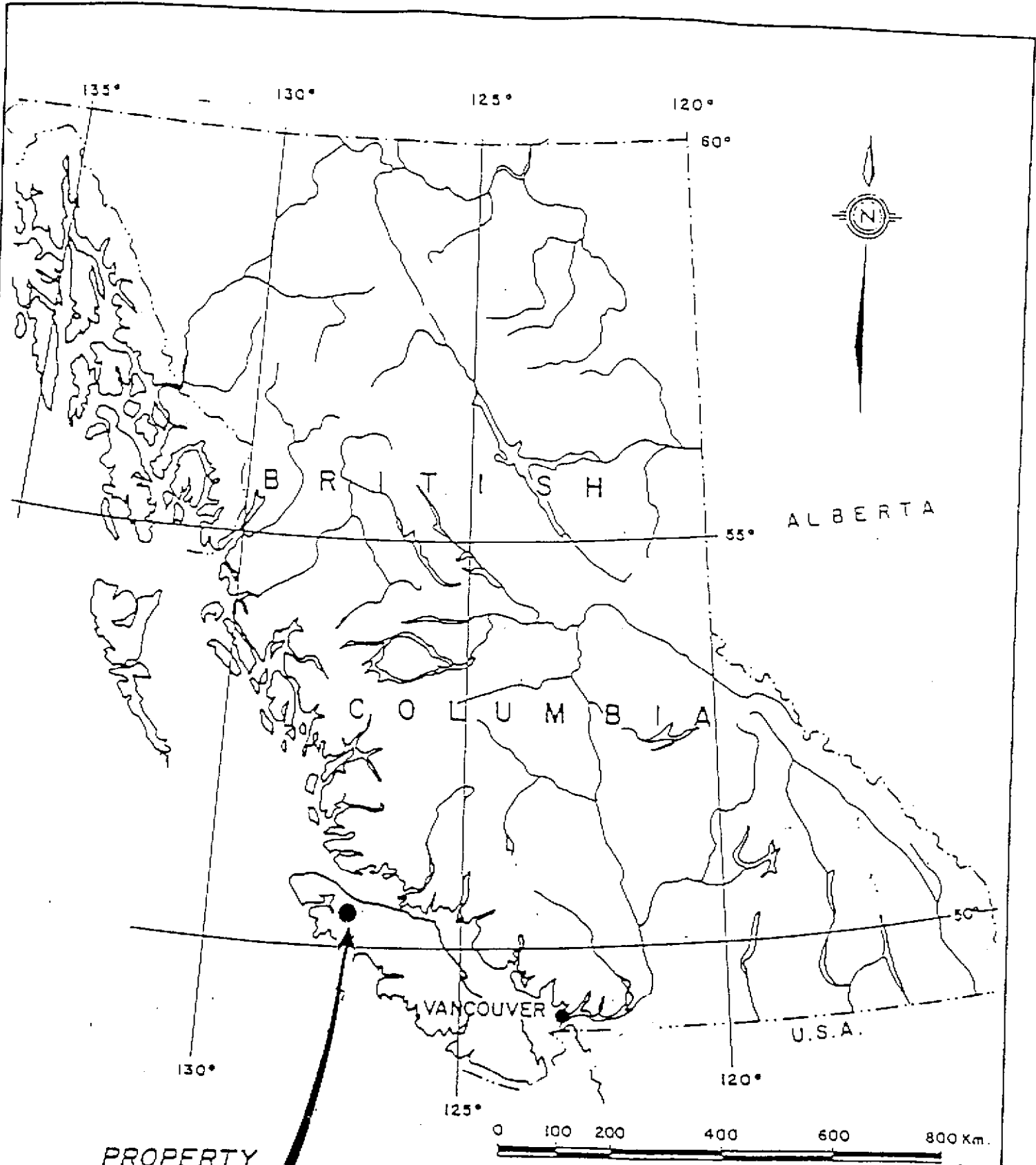
The Smiley Group 2 property was staked in February 2001 and January 2002 to cover an area of fairly pure, white limestone, which had been known from rock exposures excavated during construction of the Timberwest and CanFor Logging Roads. Recent logging by Timberwest and CanFor has exposed the area along the limestone-intrusive contact near the mainline.

The present program consisted of prospecting in 2001. Geological mapping at a scale of 1:5,000 and one short diamond drillhole was completed in 2001 and early 2002.

It is reported that some marble was quarried from the south end of this deposit around 1884 at a point 2.8 km Southwest of Beaver Cove on the Tsulton River, but no production figures are available (Minister of Mines Annual Report 1904, page 249).

To the west, near the Island Highway, white limestone was examined by Achermann and Duncan G. Ogden for Industrial Fillers and by David Coffin for Vanguard Consulting between June 15 and 19, 1988. A short diamond drilling program was conducted between August 2 and August 10, 1988. Some geological mapping was completed by Howard Brown for Pleuss Stauffer in 1984 on a regional scale between Nimpkish and Bonanza Lake.

Initial discussions have taken place with CanFor Logging on the possibility of using the private deep water dock facilities at Beaver Cove. In the past, the Ministry of Transportation Kelsey Bay-Beaver Cove Ferry used the CanFor ramp and the Nimpkish Iron operation also loaded barges and ships at Beaver Cove.



PROPERTY  
LOCATION

HOMEGOLD RESOURCES LTD.		
WHITE LIMESTONE PROJECT		
SMILEY CLAIMS GROUP 2		
LOCATION MAP		

NTS 92L/10W	DATE Feb. 1, 2002	SCALE as shown
WORK BY J. T. Shearer, M.Sc., P. Geo	FIGURE 1	

## **LOCATION and ACCESS**

The property is located about 3 km southwest of the deep water harbour at Beaver Cove, on Vancouver Island's northeast coast. Port McNeil, the closest supply point to the property, lies approximately 15 air-km or 20 road-km to the northwest. Port McNeil is capable of providing accommodation, contract excavators and the other usual requirements for an exploration program.

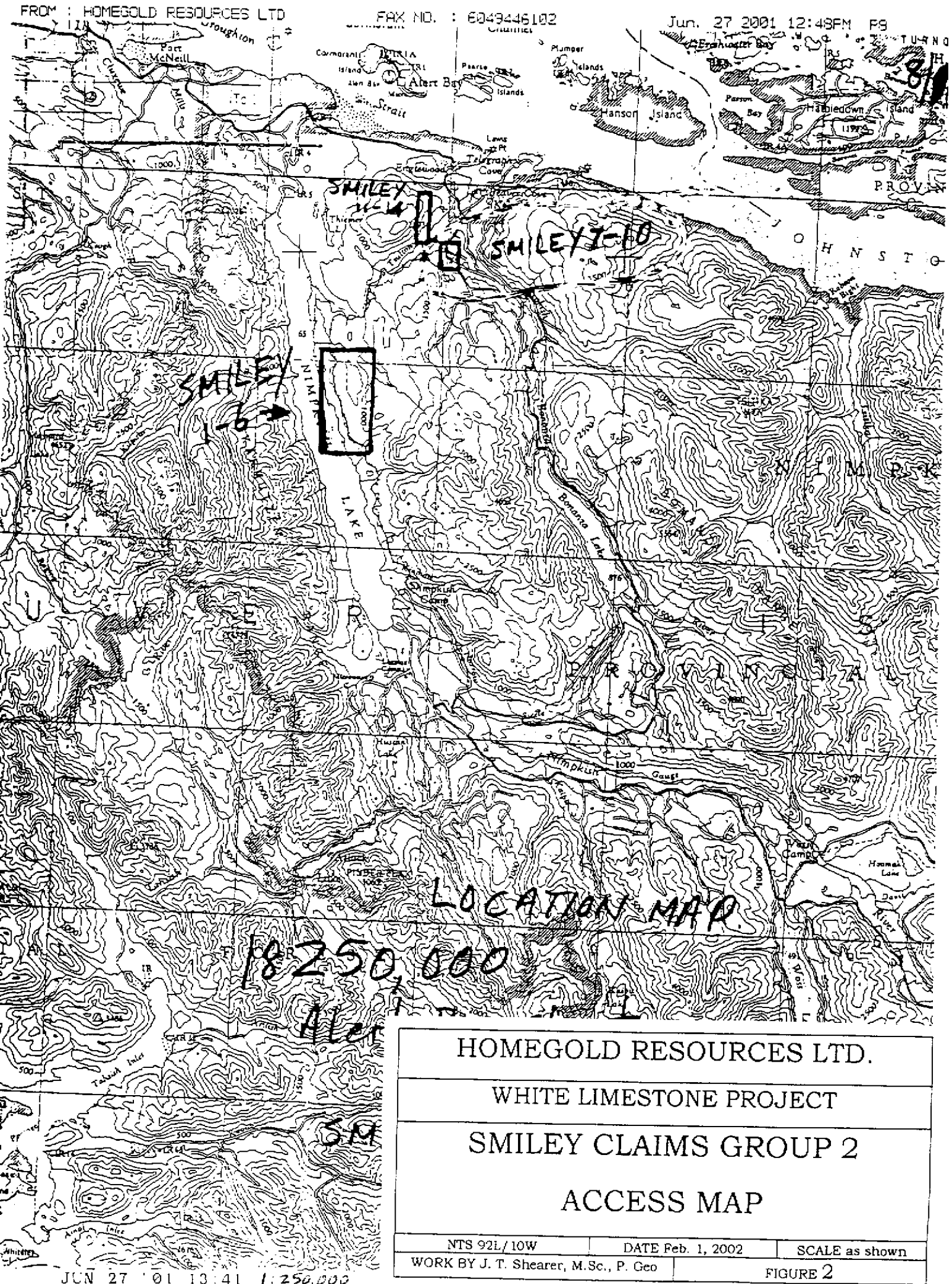
Access to the property is gained by driving south from Port McNeil along B.C. Highway 19 (Island Highway) for a distance of 20 km, turning east onto the paved road to Beaver Cove. A series of branch logging roads provide access to most parts of the claim group. The Canada Forest Products rail line crossed the central part of the property.

The Smiley property occupies a portion of the transition between the lowlands of Vancouver Island's northeast coast and the rugged mountain ranges to the south. Elevations on the property range from 25 metres to 400 metres a.s.l. Much of the property is a south facing side hill with an average slope of 20° over 1800 metres. The drainage has a trellis pattern but creeks can be expected to flow usually during run-off periods due to the limestone bedrock.

The claims are partly within TFL 37 owned by CanFor, who operate numerous camps, the largest being Woss where the Forestry Engineering office is located. A unique feature of TFL 37 is the still operating logging railway, which transports logs to the sorting and shipping facility at Beaver Cove. The eastern part of the claim group is within public forestlands operated by TimberWest, TFL 47, who have a local office at Kokish near Telegraph Cove.

The western claims (Smiley 11-14) are accessed off the paved road between Port McNeil and Beaver Cove by branch road SP026.

The eastern claims are bisected by the West Main of TimberWest and are located 2km from the Kokish rail crossing near branch 109.



LOCATION MAP

1:250,000

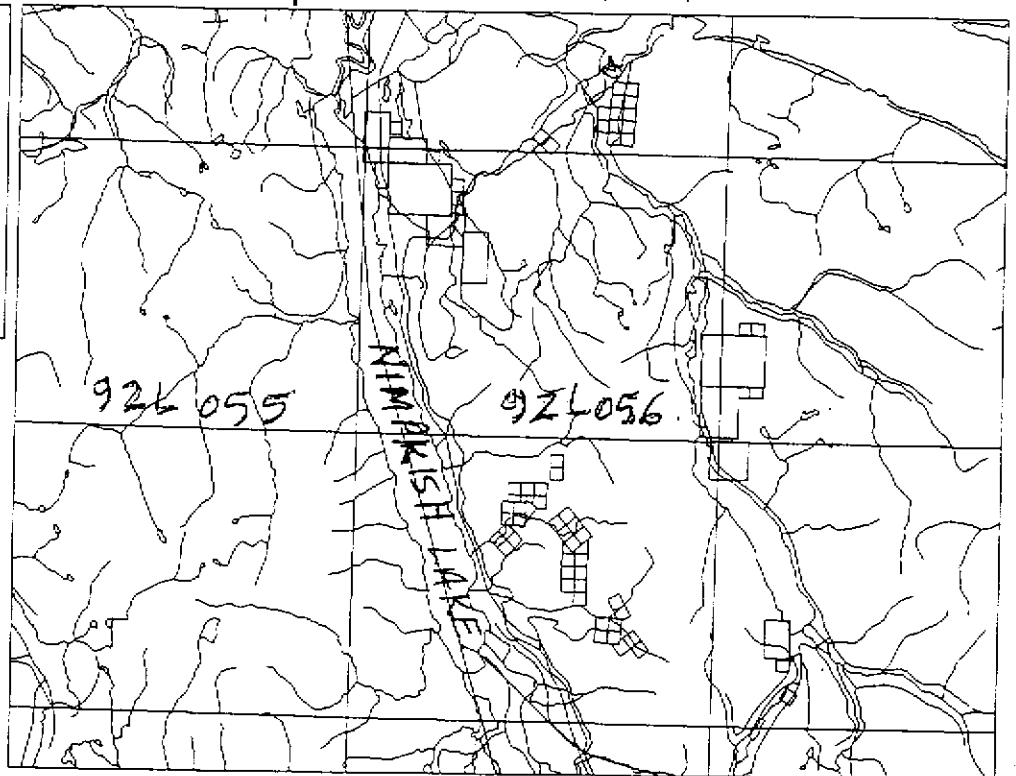
Alert

SM

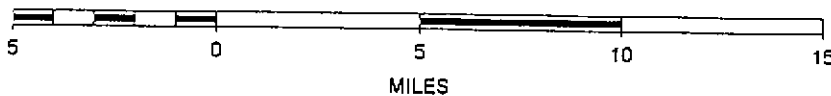
HOMEGOLD RESOURCES LTD.		
WHITE LIMESTONE PROJECT		
SMILEY CLAIMS GROUP 2		
ACCESS MAP		
NTS 92L/10W	DATE Feb. 1, 2002	SCALE as shown
WORK BY J. T. Shearer, M.Sc., P. Geo		FIGURE 2

92L 045      92L 046      11 miles = 17.6 km  
Road to Beaver Cove.

- MINERAL TITLES transparent
- All Others
- ROADS (250)
- RIVERS (250)
- 1:20k Grid
- Mineral Potential Tract Outlines



SCALE 1 : 302,460



N



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WHITE LIMESTONE PROJECT

SMILEY CLAIMS GROUP 2

ACCESS MAP

[http://webmap.ei.gov.bc.ca/minpot/map/dep\\_find.i](http://webmap.ei.gov.bc.ca/minpot/map/dep_find.i)

NTS 92L/10W	DATE Feb. 1, 2002	SCALE as shown
WORK BY J. T. Shearer M.Sc. P. Geo.		

## LIST of CLAIMS

The property consists of ten 2-post claims totalling 10 units as shown in Table 1 and Figure 4.

**TABLE I**  
**List of Claims**

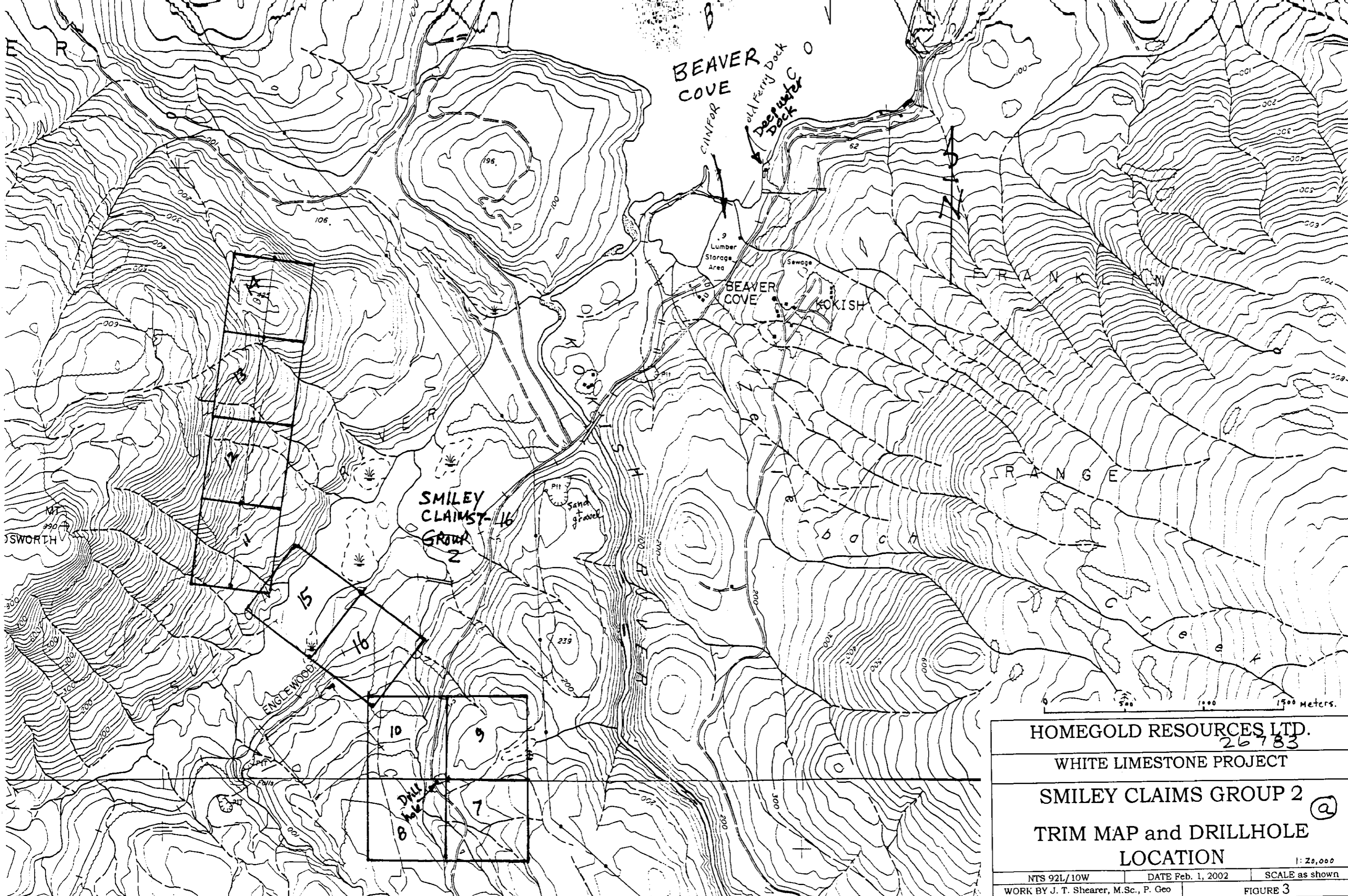
Claim Name	Tenure #	Size	Units	Date Located	Current Anniversary Date*	Registered Owner
Smiley 7	383647	2 post	1	February 1, 2001	October 11, 2005	J. T. Shearer
Smiley 8	383648	2 post	1	February 1, 2001	October 11, 2005	J. T. Shearer
Smiley 9	383649	2 post	1	February 1, 2001	October 11, 2005	J. T. Shearer
Smiley 10	383650	2 post	1	February 1, 2001	October 11, 2005	J. T. Shearer
Smiley 11	384326	2 post	1	February 27, 2001	October 11, 2005	J. T. Shearer
Smiley 12	384327	2 post	1	February 27, 2001	October 11, 2005	J. T. Shearer
Smiley 13	384328	2 post	1	February 27, 2001	October 11, 2005	J. T. Shearer
Smiley 14	384329	2 post	1	February 27, 2001	October 11, 2005	J. T. Shearer
Smiley 15	391657	2 post	1	January 20, 2002	October 11, 2005	J. T. Shearer
Smiley 16	391658	2 post	1	January 20, 2002	October 11, 2005	J. T. Shearer

Total 10 Units

\* after common dating and application of assessment work documented in this report.

Mineral title is acquired in British Columbia via the Mineral Act and regulations, which require approved assessment work to be filed each year in the amount of \$100 per unit per year for the first three years and then \$200 per unit per year thereafter to keep the claim in good standing.

Under the present status of mineral claims in British Columbia, the consideration of industrial minerals requires careful designation of the products 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.



HOMEGOLD RESOURCES LTD. 26783		
WHITE LIMESTONE PROJECT		
SMILEY CLAIMS GROUP 2 @		
TRIM MAP and DRILLHOLE LOCATION		
NTS 92L/10W	DATE Feb. 1, 2002	SCALE as shown
WORK BY J. T. Shearer, M.Sc., P. Geo	FIGURE 3	

1:20,000

## HISTORY

The area has long been known for its timber production along Nimpkish and Bonanza Lakes. Several skarn copper-magnetite showings were found in 1929 south of the Smiley Claims along Kinman Creek and Smith Creek.

There are several assessment reports available on the general area to the west toward Nimpkish Lake covered by the Smiley Group 1 as follows:

### Assessment Report Number

094	Menzies, M., and Brynelsen, B. O., 1953: Trenching and Mapping for Noranda.
10986	Quin, and DeCarle, 1983: Input EM and Airborne Magnetometer 33.7 line km also plotted on a 1:10,000 orthophoto with total magnetics and horizontal coil EM anomalies for Mintek Resources
12348	Morton J. W., 1984: Geochemistry for Mintek Resources
18850	Soux, C. and Coffin, D., 1988: Diamond Drill Program Report for Industrial Fillers Ltd. (Pleuss Stauffer) two 150m short holes, widely spaces.

Geological mapping was carried out by Pleuss Stauffer geologist, Howard Brown in several places on the northern Vancouver Island. A reduced summary version of Brown's mapping is shown in Soux and Coffin (1988).

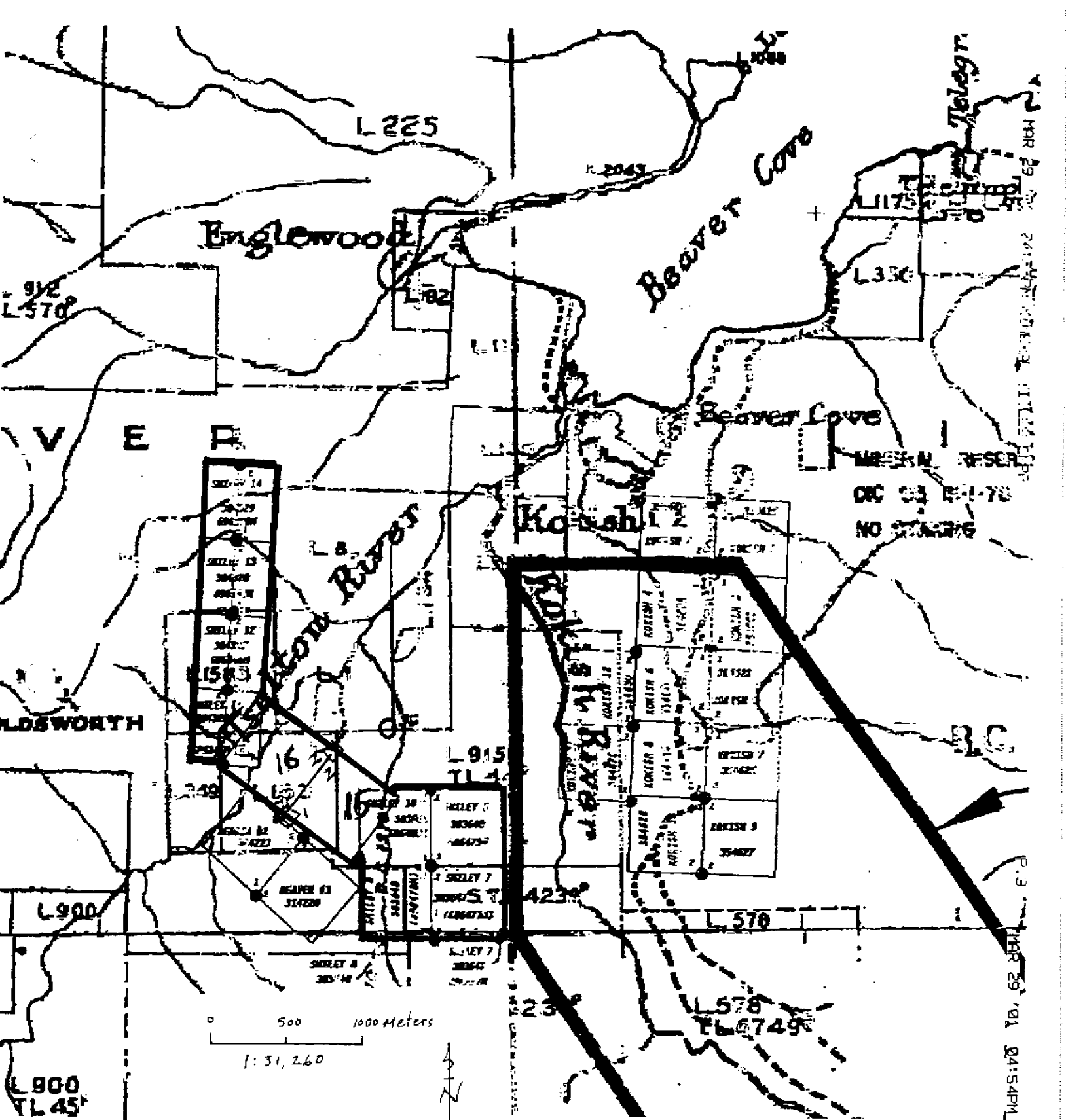
To the south of Nimpkish Lake a small magnetite skarn produced a several million tonnes in the late 1950's and early 1960's from the Klannick Iron Deposit. Mineralization in this general area was originally discovered around 1900.

On the northeast end of Bonanza Lake along the south continuation of the limestone unit on the Smiley 7 to 16 is the Leo D'Or dimension stone trial quarry. In the late 1980's two 25 tonne marble blocks were extracted on a trial basis and 35 smaller blocks cut in 1993. Apparently, these efforts were not successful in defining a viable market and the claims have been dormant since 1993.

Several properties are held for their White Limestone potential by OMYA Ltd. in the northern Bonanza Lake and eastern Nimpkish Lake areas.

The area now covered by Smiley 11 & 12 was explored for Pb/Zn in the early 1980's (Sadler-Brown, 1982). The Beaver 1 & 2 claims, immediately west of Smiley 15 & 16 was explored in 1993 with diamond drilling and trenching (Henneberry, 1993) toward outlining a reserve of white limestone.





HOMEGOLD RESOURCES LTD.		
WHITE LIMESTONE PROJECT		
SMILEY CLAIMS GROUP 2		
CLAIM MAP		
NTS 92L/10W	DATE Feb. 1, 2002	SCALE as shown
WORK BY J. T. Shearer, M.Sc., P. Geo		FIGURE 4

## REGIONAL GEOLOGY

The Nimpkish-Bonanza Lakes Area was most expertly mapped by H. Gunning in the field seasons 1929 to 1931 who established a more detailed stratigraphy and named the Karmutsen Formation and Bonanza Group.

These maps were published by Hoadley (1953) along with Memoir 272 (Geology and Mineral Deposits of the Zeballos-Nimpkish Area, Vancouver Island, B.C.). More recently Mueller and Roddick completed 1:250,000 mapping of the 92L sheet for the Geological Survey of Canada and published Paper 74-8 on the general Area (Muller, Northcote and Carlise, 1974).

The area is primarily composed of intermediate volcanic sequences of the Karmutsen Formation conformably overlain by Quatsino Formation Limestone. A major synclinal structure occurs to the immediate west of the Smiley Group 2, which exposes Triassic Parson Bay mixed sedimentary rock and Lower Jurassic Bonanza Group intermediate to felsic volcanic sequences. Rock units generally trend to the northwest, displaying a series of open folds with gentle dips east and west. In the immediate Smiley 7-10 claims area dips to the west at 20°

All of the above units have been intruded by members of the intermediate to felsic Island Intrusions of Upper Jurassic age. These intrusions have caused both skarn and other hydrothermal metal deposits at numerous locations on Vancouver Island.

Major faults tend to lie sub-parallel to the fold structures, although cross-faulting has been mapped.

Hoadley (1953) describes the Quatsino Formation (page 17) as follows:

*"The Quatsino Formation consists almost entirely of limestone, with a few thin flows of andesite or basalt. The limestone is fine to coarsely crystalline, and ranges from white to black, with various intermediate colours. Towards the base, it tends to be exceedingly fine grained, and grey and brownish or buff colours are characteristic. Midway of the formation the colours are predominantly white or grey, but towards the top the limestone becomes dark grey to black, due to a varying quantity of carbonaceous matter, and the formation grades upward into argillites and impure limestones of the overlying Bonanza group. Even at the top, however, light grey or even white beds are interbedded with the darker varieties in the upper part of the formation but in the lower part, where white to brownish grey and buff colours predominate, it is poorly preserved. In the upper part, too, the beds are generally thin, thicknesses of ½ inch and less being common and formation 2 or 3 feet uncommon. The formation as a whole is dominantly a high-calcium limestone. The rock is too jointed in many places to serve as a building stone, but where the beds are least deformed and well removed from intrusions, as from Beaver Cove to Bonanza Lake, it could be extracted in blocks sufficiently large for ordinary structural purposes. Within a mile or two of bodies of the Coast intrusions, the limestone may be highly contorted and extremely jointed and fractured, cut by many acidic dykes, and partly altered to lime-silicate minerals, iron oxides, magnetite and hematite, and by sulphides of copper, iron, zinc, and lead."*

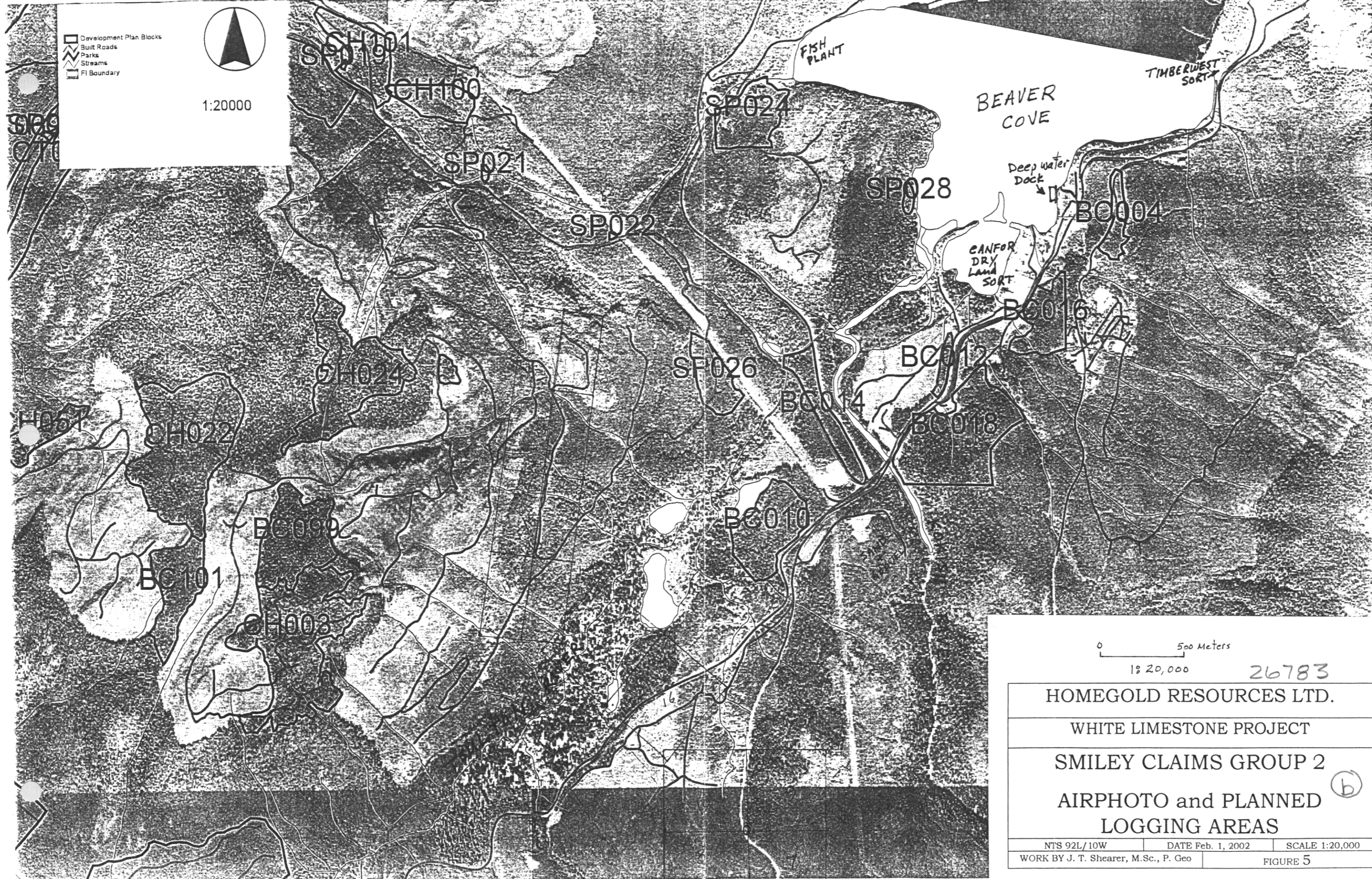
The lower part of the Quatsino limestone is well exposed on the east side of Nimpkish Lake, 2 miles from the outlet. At its base there is a small fault, trending 070° east,



-  Development Plan Blocks
-  Built Roads
-  Parks
-  Streams
-  FI Boundary



1:20000



0 500 Meters  
1:20,000

26783

HOMEGOLD RESOURCES LTD.		
WHITE LIMESTONE PROJECT		
SMILEY CLAIMS GROUP 2		
AIRPHOTO and PLANNED LOGGING AREAS <span style="float: right;">(b)</span>		
NTS 92L/10W	DATE Feb. 1, 2002	SCALE 1:20,000
WORK BY J. T. Shearer, M.Sc., P. Geo		FIGURE 5



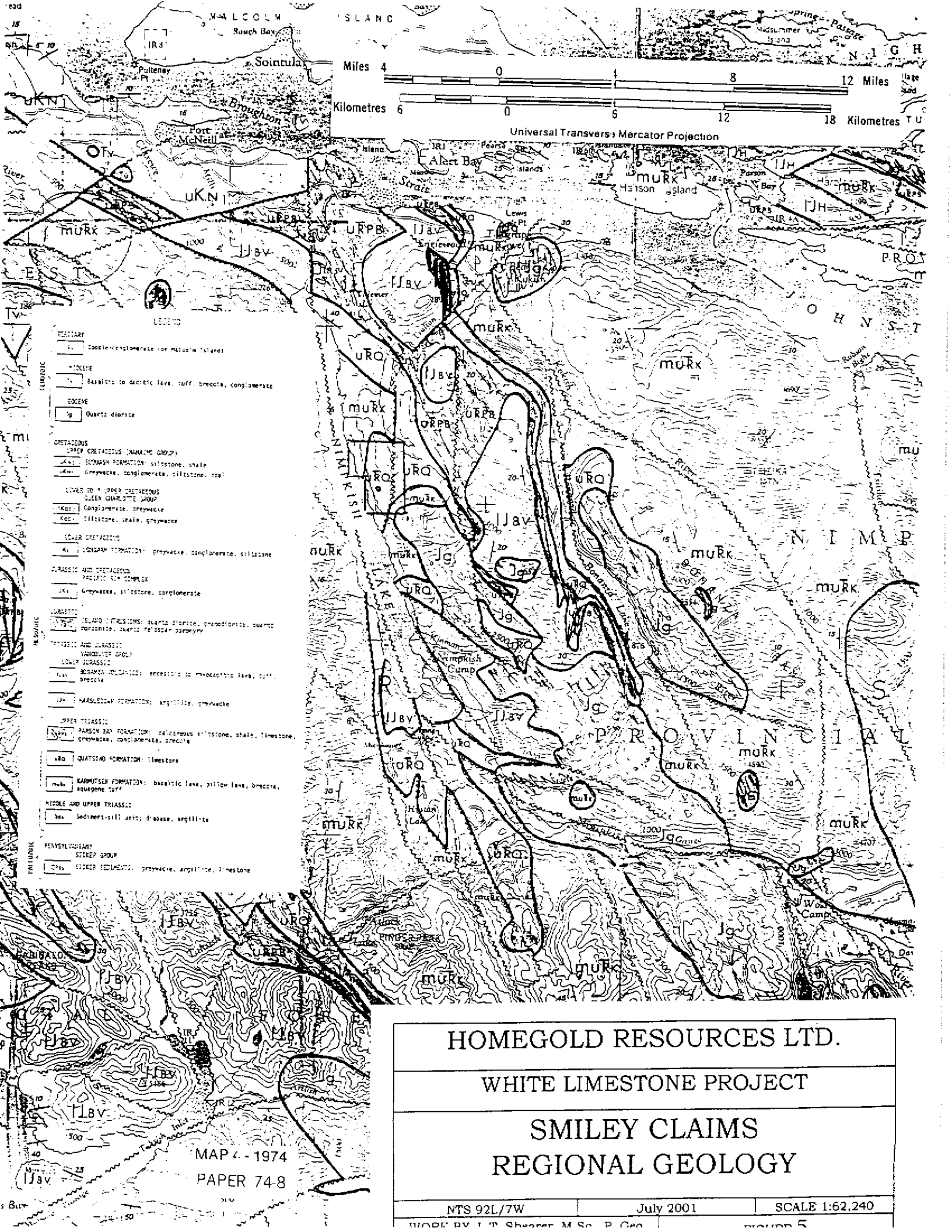
which throws the underlying volcanic rocks up against the limestone. The volcanic rocks, which include andesite, amygdaloidal basalt, and sheared agglomerate, are exposed for 500 yards or more to the south and are underlain by at least 50 feet of grey and white mottled limestone, which at its base becomes argillaceous and well bedded and rests conformably on a slightly sheared and altered amygdaloidal flow. A second smaller bed of limestone lies conformably in these volcanic rocks a few hundred yards farther south. At this locality, the lower part of the Quatsino Formation is composed of interbedded limestone and volcanic flows.

For about a mile on the east side of Nimpkish Lake opposite Halfway Islands, near the western part of the Smiley Claims, the rocks at and near the base of the Quatsino formation are exposed at low water (Hoadley, 1953). There, the top of the underlying volcanic group is rolling and irregular and remnants of the overlying Quatsino limestone have been preserved in one or two saucer-shaped low-lying areas. The relations between the limestone and underlying volcanic rocks are complex. In one place, 1 km due south of Halfway Islands, an irregular, 3-foot bed of light grey, fine-grained, limestone, some distance below the base of the Quatsino Formation, is overlain and underlain by andesitic lavas, and is contorted and slightly faulted. Farther south are amygdaloidal basalts and a peculiar fragmental rock, the latter consisting of grey to greenish or brownish dense limestone nodules or rounded fragments, rarely more than 1 inch or 2 inches in diameter, in a matrix of green and reddish andesite and basaltic fragments from ¼ inch to 18 inches in diameter, some of them resembling bombs. This rock might be termed a breccia, but it has the appearance of having been formed by incorporation of volcanic ejectamenta in a calcareous mud, possibly with the addition of a few angular fragments of limestone (Hoadley, 1953).

Farther south, at the first good exposure of its base, the Quatsino Formation was found by Hoadley to be underlain by andesitic flows containing several irregular gobs, up to 5 feet across, of limestone, the whole intruded by irregular and curving andesite dykes. The Quatsino limestone overlies this material and dips gently westward but contains irregular to lenticular dyke-like masses of andesite.

At one place on the small peninsula northeast of Halfway Islands, the base of the limestone is again well exposed. There, the limestone is apparently lying on green to purplish andesite flows and fragmental rocks, but it is intruded by numerous dykes of similar appearance to the lavas. Also, the dykes contain many large and small fragments of limestone. The limestone itself is massive or poorly and irregularly bedded. Farther south, the underlying andesite and amygdaloidal basaltic volcanic rocks are exposed for almost 900 feet to the small point east of the north end of Halfway Islands. There, pure white, crystalline, massive limestone, banded in grey shades for 8 feet above the base, overlies green, rusty, pyritic andesite, the contact striking 030° and dipping 30° southeast (Hoadley, 1953).

Most of the intrusive rocks of Vancouver Island form part of the Coast intrusions, which were emplaced during Jurassic or Cretaceous time and which now occupy much of the Coast Mountain area of British Columbia. They are holocrystalline, igneous rocks that range in colour from pink and brown to grey and dark greenish grey, and in composition from basic to acidic, with rocks of the granite clan predominating. They form sills, dykes, stocks and batholithic bodies in the Vancouver group and are of great economic significance in that most of the mineral deposits of the region are believed to be genetically related to them.



MAP 4-1974  
PAPER 74-8

HOMEGOLD RESOURCES LTD.		
WHITE LIMESTONE PROJECT		
SMILEY CLAIMS		
REGIONAL GEOLOGY		
NTS 92L/7W	July 2001	SCALE 1:62,240
WORK BY J. P. Shearer M.Sc. P. Geo.	GROUP 5	

On northern Vancouver Island, these intrusive rocks are largely confined to long, narrow, northwesterly trending belts separated by somewhat wider belts of Upper Triassic volcanic and sedimentary rocks. The areas of intrusive rocks are, in detail, irregular and discontinuous. Regionally, however, they form bands 2 to 5 miles in width that can be traced along the strike of the volcanic rocks for many miles (Hoadley, 1953).

Elsewhere in British Columbia, there are sources of white limestone, most notably at Benson Lake (about 20 km directly west of the Smiley Claims) operated by IMASCO and several producers on Texada Island.

Texada Island has produced high quality white limestone from small deposits over the course of its history. There are no extensive white limestone deposits on the island (Mathews and MacCammon, 1957); however, there are workable deposits situated on the island. The Blubber Bay quarries of Pacific Lime and their subsequent owners mined white limestone and stockpile it for specialty markets. The white limestone sells for a premium and so was able to be selectively mined. Beale Quarries Limited also produced white limestone from a body south of Quarry No. 5 in the vicinity of Lot 499.

White limestone was produced from Lot 500 south of Van Anda and south of the Lafarge quarry on Lot 499. The stone was pulverized and bagged for shipment on the property until Fred Beale opened a stucco plant in the old smelter building in Van Anda. From the 1940's until 1959 Lot 500 supplied the stucco plant with white limestone until Imperial Limestone Company Limited gained control of the operation. J. A. Jack & Sons Incorporated of Seattle, Washington own Imperial Limestone. The limestone is shipped to the Seattle processing plant and sold for agricultural limestone, stucco, chicken grit and other pulverized limestone products.

Imperial Limestone built a crushing and barge load-out installation at Butterfly Bay (Spratt Bay). In 1975 the stucco plant in Van Anda was shut down and the building destroyed. Imperial built a new pulverizing and bagging plant at Butterfly Bay as a result. The plant was eventually phased out when freight costs became too high to operate it. All stone processing is now carried out in Seattle.

The largest white limestone body is at Texada Quarrying Ltd. (formerly Ideal Cement) Paxton Lake Zone. The Paxton Lake deposit has been developed on 3 wide levels but has recently been inactive due to low priced white limestone temporarily sourced out of southeast Alaska. The origin of the white limestone is controversial. The genesis of the white rock may be due to metasomatism, stratigraphic control, hydrothermal alteration or volcanic intrusives. The white colour is probably the result of the bleaching of black limestone by hydrothermal fluids percolating along a system of vertical joints.

## LOCAL GEOLOGY

The Smiley Group 2 property is underlain by a wide expanse of Quatsino Formation limestone in conformable contact with undifferentiated Karmutsen Formation basalt and andesite, all of which has been intruded by a northwesterly trending body of coarse grained biotite quartz monzonite. Thin sills and dykes of fine grained diabase cut the limestone but were not seen to cut the monzonite. Minor thin skarn zones form along the volcanic/limestone contact.

Previous work on the property divided the limestone into Upper and Lower members. The Upper member is medium to dark grey in colour and occasionally contains silica. Interbeds of white weathering, off white to light grey limestone are also present. The Lower member is generally white to light grey and fine grained, except where recrystallized and has thin beds of dark grey and cherty material. Rare pyritic lens both conform to and cross bedding.

A band of limestone, of the Upper Triassic Quatsino Formation (Vancouver Group), extends south across the east side of a hill, just west of Beaver Cove, for 2500 metres to the Tsulton River. the band is truncated to the north by a northwest trending fault and to the south, along the Tsulton River, by a northeast trending fault. This band is the faulted extension of a belt of limestone that continues southward from the Tsulton River to Bonanza Lake (092L 280). the band is bounded to the west by an elongate, north trending diorite stock of the Early to Middle Jurassic Island Plutonic Suite. Underlying basalts of the Upper Triassic Karmutsen Formation (Vancouver Group) outcrop along the east side of the band. The strata strike northwest and dip steeply southwest. The limestone bed varies from 120 to 150 metres in thickness.

Near its north end the band is comprised mostly of fine grained, white to black streaked limestone that becomes coarse grained near the diorite contact. Some pyrrhotite-garnet-epidote skarn is developed at the contact the limestone here contains some chert and a few, 0.6 to 1.2 metre wide, dykes. Exposures to the south in the Tsulton River display creamy white, sugary limestone that is interbedded with a few bands of fine grained, bluish grey limestone.

Occasional small nodules of chert and a few thin dykes are present. A 67 metre long chip sample taken across white sugary textured limestone on the north end of the band contained in per cent (Minister Mines Annual Report 1968, p. 318, Sample 22):

CaO	MgO	Insol (SiO <sub>2</sub> )	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MnO	P <sub>2</sub> O <sub>5</sub>	S	LOI
55.17	0.08	1.22	0.30	0.13	0.023	0.02	0.01	43.21
[98.2% CaCO <sub>3</sub> ]								

A sample of white limestone from the south end assayed, in per cent (CANMET Report 811, p. 142, Sample 8):

CaO	MgO	Insol (SiO <sub>2</sub> )	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MnO	P <sub>2</sub> O <sub>5</sub>	S	LOI
54.34	0.34	1.04	0.12	0.16	--	--	0.02	--

McCammon (1968) on page 317 reports the following:

*A logging road with a branch along the north side of the hill and another along the east side provides access to the limestone. The best exposures are between 450 and 710 feet elevation on the east branch road about 1½ miles from the main highway. Near the limestone band, probably 400 to 500 feet thick stratigraphically, is exposed discontinuously for 1,700 feet along the road. It is underlain by basalt on the east and is cut off by diorite on the west. The forest cover has been removed by recent logging, so visibility is good, but overburden*

*covers much of the rock. The limestone varies from white to white and grey streaked to black. Most is fine grained, but near the diorite the grains are as much as a quarter inch in diameter. Variable amounts of chert, 2 to 4 foot thick igneous dykes and a few tuffaceous beds are present in the outcrops. Some pyrrhotite-garnet-epidote skarn occurs at the diorite contact. Sample 22 consisted of chips taken at 10 foot intervals across 220 feet of sugary white rock in a line cut on the logging road 1 ½ miles from the highway.*

*On the north side of the hill the limestone band pinches down to a width of 100 feet and becomes badly contaminated with volcanic rock and skarn.*

*The same band of limestone is exposed on the west side of the Tsulton River on Lots 1, 8 and 1583 about three quarters of a mile above the highway bridge. Most of the stone is creamy white sugary rock. At this point the band is exposed for nearly 2,000 feet along the river but probably represents about 500 feet of beds. Goudge (1) published an analysis of a sample from this exposure that is shown as No. 23 in the accompanying table.*

*Southeast of the river good exposures of the limestone can be seen in cuts on the Nimpkish Valley logging railway. The limestone outcrops begin 1.6 miles from the highway crossing and are nearly continuous for 2,000 feet to the bridge over the canyon of the east fork of the Tsulton River. In the first 250 feet the limestone forms a small anticline and is overlain by a layer of andesite. The limestone is grey to white, partly fine grained and partly sugary white marble with grains 0.2 millimetres in diameter. A sample of chips collected at 10 foot intervals across the chord of the fold had the composition show as No. 24 in the table. Sample 25 consisted of chips collected at 10 foot intervals along the next 350 feet to the south along the tracks. Dykes are fairly numerous in the succeeding 400 feet of exposures. The limestone in the last 1,000 feet is very dark grey to black, fine grained and contains scattered fossil remnants.*

Hoadley (1953) characterizes the pluton east and southeast of Nimpkish Lake as essentially granodiorite, although parts of it are quartz monzonite and in places it approaches granite in composition. In a few thin sections, especially those of the granites, interstitial micrographic intergrowths of quartz and alkali feldspar were observed (Hoadley, 1953). Alteration of the feldspars to sericite, zoisite and albite is common. Green hornblende is the dominant ferromagnesian constituent, but in places is exceeded by dark brown biotite, in ragged flakes. Some of the biotite is derived from the hornblende and both biotite and hornblende have been altered in part to chlorite (Hoadley, 1953).

Throughout this entire area, the intrusive rocks are lithologically very similar and except for the more basic border phases all belong to the granite clan, with granodiorite, quartz monzonite and granite the most common types.



## **DIAMOND DRILLING**

The diamond drillhole completed in 2001 is plotted on Figure 3 and Figure 7 (in pocket). Drill log is contained in Appendix III. Hole NIMP-01-01 was collared in the old logging quarry on the West Main of TimberWest. From 3.96m down to 14.40m is a very white mostly finely crystalline limestone.

The entire carbonate section is characterized by well developed stylolites containing dark insolubles generally at 90° to core axis. A narrow diorite dyke was encountered between 18.97-21.82m at 75° to core axis.

## CONCLUSIONS and RECOMMENDATIONS

A band of limestone, of the Upper Triassic Quatsino Formation (Vancouver Group), extends south across the east side of a hill, just west of Beaver Cove, for 2500 metres to the Tsulton River. The band is truncated to the north by a northwest trending fault and to the south, along the Tsulton River, by a northeast trending fault. This band is the faulted extension of a belt of limestone that continues southward from the Tsulton River to Bonanza Lake (092L 280). The band is bounded to the west by an elongate, north trending diorite stock of the Early to Middle Jurassic Island Plutonic Suite. Underlying basalts of the Upper Triassic Karmutsen Formation (Vancouver Group) outcrop along the east side of the band. The strata strike northwest and dip steeply southwest. The limestone bed varies from 120 to 150 metres in thickness.

Near its north end the band is comprised mostly of fine grained, white to black streaked limestone that becomes coarse grained near the diorite contact. Some pyrrhotite-garnet-epidote skarn is developed at the contact the limestone here contains some chert and a few, 0.6 to 1.2 metre wide, dykes. Exposures to the south in the Tsulton River display creamy white, sugary limestone that is interbedded with a few bands of fine grained, bluish grey limestone.

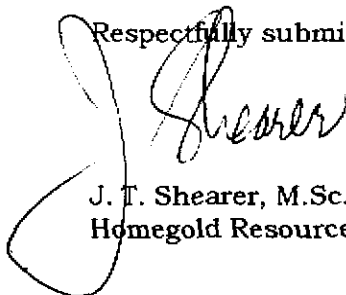
Occasional small nodules of chert and a few thin dykes are present. A 67 metre long chip sample taken across white sugary textured limestone on the north end of the band contained in per cent (Minister Mines Annual Report 1968, p. 318, Sample 22):

CaO	MgO	Insol (SiO <sub>2</sub> )	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MnO	P <sub>2</sub> O <sub>5</sub>	S	LOI
55.17	0.08	1.22	0.30	0.13	0.023	0.02	0.01	43.21
(98.2% CaCO <sub>3</sub> )								

A sample of white limestone from the south end assayed, in per cent (CANMET Report 811, p. 142, Sample 8):

CaO	MgO	Insol (SiO <sub>2</sub> )	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MnO	P <sub>2</sub> O <sub>5</sub>	S	LOI
54.34	0.34	1.04	0.12	0.16	--	--	0.02	--

Respectfully submitted,



J. T. Shearer, M.Sc., P.Geo.  
Homegold Resources Ltd.

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# **APPENDIX I**

## **STATEMENT of QUALIFICATIONS**

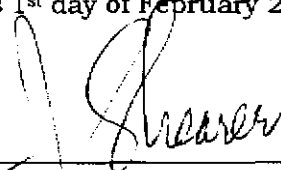
**FEBRUARY 1, 2002**

**Appendix I**  
**STATEMENT OF QUALIFICATIONS**

I, JOHAN T. SHEARER, of 1817 Greenmount Avenue, 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 25 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). I am also a fellow of the Geological Society (London) and Society of Economic Geologists (SEG).
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 "Geological, Prospecting and Diamond Drilling Report on the Smiley 7-16 Claims, Nanaimo Mining Divisions" dated February 1, 2002.
6. I have visited the property between March 1, 2001 and January 28, 2002. I have carried out mapping and sample collection and am familiar with the regional geology and geology of nearby properties. I have become familiar with the previous work conducted on the Smiley claims by examining in detail the available reports and maps and have discussed previous work with persons knowledgeable of the area.
7. I have an Open Pit Supervisor Ticket (#98-3550) for daily supervision duties.
8. I own an interest in the Smiley Claims and own Homegold Resources Ltd.

Dated at Port Coquitlam, British Columbia, this 1<sup>st</sup> day of February 2002.

  
\_\_\_\_\_  
J.T. Shearer, M.Sc., F.G.A.C., P.Geo.  
Quarry Supervisor #98-3550  
February 1, 2002

**APPENDIX II**

**STATEMENT of COSTS**

**FEBRUARY 1, 2002**

APPENDIX II

**STATEMENT of COSTS  
SMILEY GROUP 1  
(SMILEY 7-16 : 10 UNITS)  
-- for work in the year 2001 -**

Claims Staked Feb. 1 and Feb. 27, 2001  
Annual Work Approval # NAN-01-1610031-0038

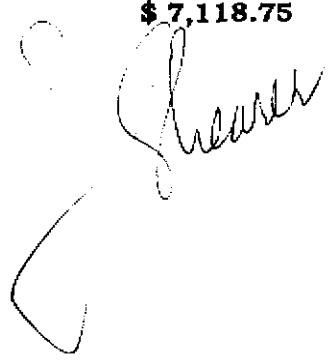
**Wages and Benefits**

J.T. Shearer, M.Sc., P.Geo.	
6 days @ \$350/day	
March 15, 16, 17, 2001k January 16, 17, 18, 2002	\$ 2,100.00
Doug Stelling, Prospector	
6 days @ \$250/day	
March 15, 16, 17, 2001k January 16, 17, 18, 2002	<u>1,500.00</u>
	\$ 3,600.00
GST	<u>252.00</u>
Subtotal Wages	\$ 3,852.00

**Expenses**

Transportation	
Truck Rental, Fully equipped 4x4	
5 days @ 53.50	267.50
Gas	115.25
Ferries	129.00
Hotel, Meals & Camp Supplies	510.00
Contract Diamond Drilling (Boisvenu Drilling Ltd.)	
Invoice 010305, 80 ft @ \$20/ft	1,600.00
Drill Mobilization and Consumables	421.00
Core Sawing and Splitting	120.00
Map Preparation and Drafting	150.00
Report Preparation	700.00
Word Processing and Reproduction	<u>175.00</u>
Subtotal	\$ 3,266.75
<b>Grand Total</b>	<b>\$ 7,118.75</b>

43% Prospecting - \$3,070.00  
57% Geology and Drilling - 4,048.75





**APPENDIX III**

**DRILL RECORD**

**FEBRUARY 1, 2002**

**HOMEGOLD RESOURCES LTD.**  
 Unit #5 - 2330 Tyner St., Port Coquitlam, B.C. V3C 2Z1  
**WHITE LIMESTONE PROJECT - SMILEY CLAIMS**

**SECTION: SMILEY CLAIMS**

**Diamond Drill Log**

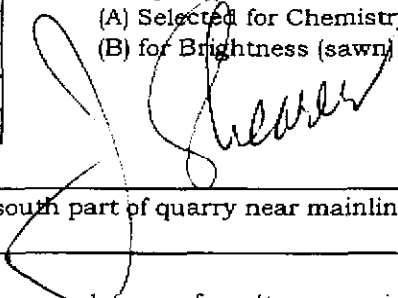
**DDH#: NIMP-01-01**

Northing: \_\_\_\_\_  
 Easting: \_\_\_\_\_  
 Elevation: Approx. 180m.  
 Azimuth: 000  
 Inclination: -90  
 Grid: No Grid  
 Length (m): 24.38m (80 ft)  
 Core size: ATW  
 Contractor: Boisvenu  
 Drill Type: Hydraulic Packdrill

Drill Hole survey		
Method: <u>Brunton</u>		
Azimuth	Dip	Depth
000	-90	collar

Property: White Limestone  
 NTS: 92L/10W (92L.056)  
 Claim: Smiley 8  
 Date Started: March 16, 2001  
 Date Completed: March 16, 2001  
 Logged by: J.T. Shearer, M.Sc.,  
 P. Geo.

Sample Collected:  
 (A) Selected for Chemistry  
 (B) for Brightness (sawn)

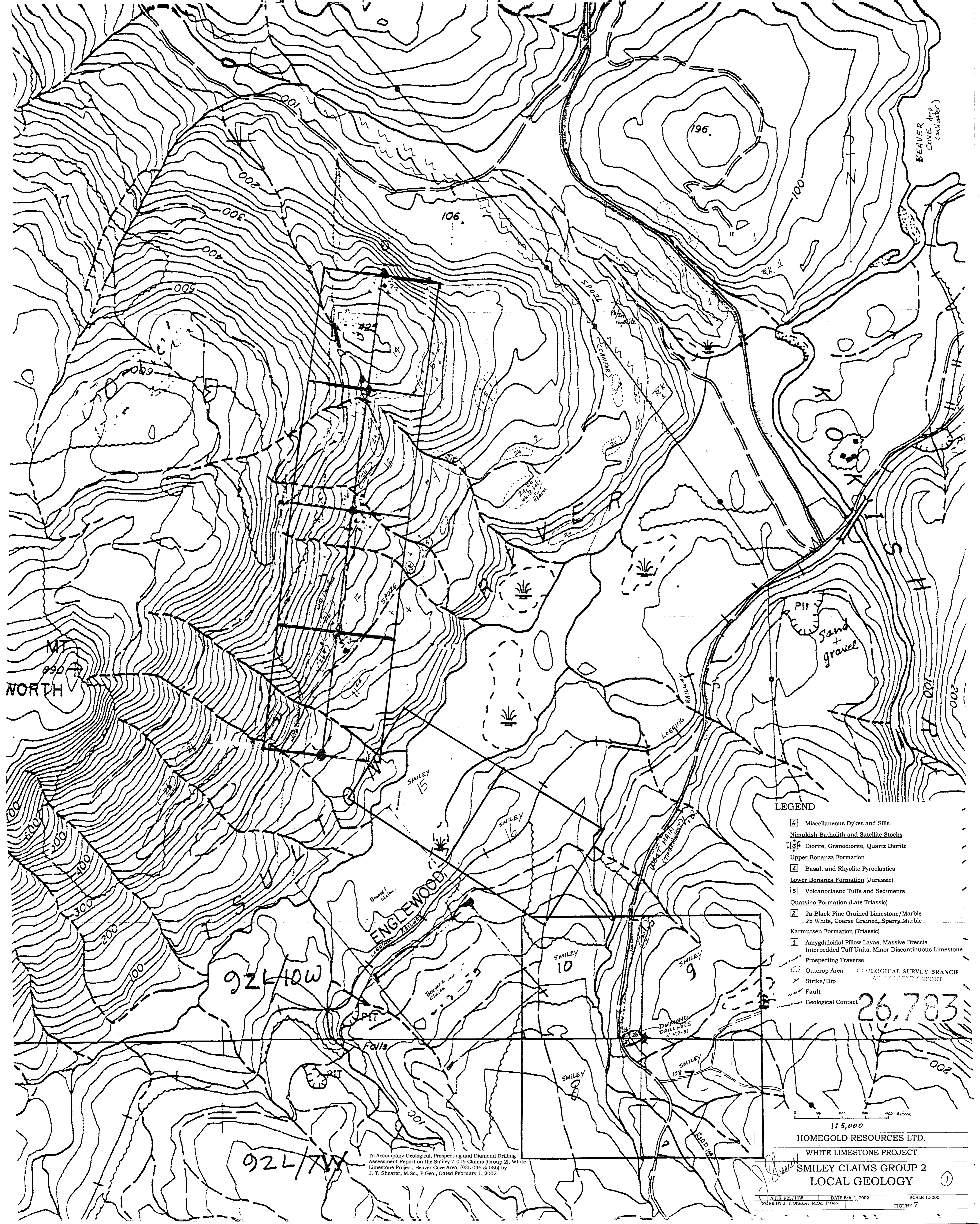


Purpose: In small road quarry 2km Southwest of Kokish Rail crossing, south part of quarry near mainline

from (m)	to (m)	Code	Description	sample No.	from/to	width (m)	Au (g/t)
0.00	3.96		<b>ROAD FILL:</b> on top of quarry floor, pocket of wood and other debris				
3.96	14.40		<b>WHITE LIMESTONE:</b> minor grey mottling. Relatively fine grained. Well developed stylolites - containing dark insolubles irregular but generally at 90° to core axis at 5.49m. Relatively rare fractures, rock mostly massive.				
14.40	15.05		<b>FRACTURE ZONE</b> associated with dark grey siliceous limestone at 5° to core axis. Contrasting with massive limestone above and below fracture zone. Minor slickensides along low angle fractures.				
15.05	18.97		<b>WHITE LIMESTONE:</b> relatively fine grained, light grey to white in colour, stylolites throughout, gradationally slightly darker toward lower contact				
18.97	21.82		<b>DIORITE DYKE:</b> green, altered, relict plagioclase pyritic. Upper contact at 75° to core axis. Lower contact more irregular also at 73° to core axis. Minor skarn on lower contact.				
21.82	24.38		<b>WHITE LIMESTONE:</b> light grey to white, fine grained throughout, wide spaced stylolites down to end of hole.				

**END of HOLE 24.38m (80 ft.)**





- LEGEND**
- 6 Miscellaneous Dykes and Sills
  - Nimpkish Batholith and Satellite Stocks
  - 5 Diorite, Granodiorite, Quartz Diorite
  - Upper Bonanza Formation
  - 4 Basalt and Rhyolite Pyroclastics
  - Lower Bonanza Formation (Jurassic)
  - 3 Volcanoclastic Tuffs and Sediments
  - Quatsino Formation (Late Triassic)
  - 2a Black Fine Grained Limestone/Marble
  - 2b White, Coarse Grained, Sparry Marble
  - Karmutsen Formation (Triassic)
  - 1 Amygdaloidal Pillow Lavas, Massive Breccia
  - Interbedded Tuff Units, Minor Discontinuous Limestone
  - Prospecting Traverse
  - Outcrop Area
  - Strike/Dip
  - Fault
  - Geological Contact

0 100 200 300 400 Meters  
 1:5,000

HOMEGOLD RESOURCES LTD.

WHITE LIMESTONE PROJECT

SMILEY CLAIMS GROUP 2  
 LOCAL GEOLOGY

N.T.S. 92L/10W DATE Feb. 1, 2002 SCALE 1:5000  
 WORK BY J. T. Shearer, M.Sc., P. Geo. FIGURE 7

To Accompany Geological, Prospecting and Diamond Drilling  
 Assessment Report on the Smiley 7-016 Claims (Group 2), White  
 Limestone Project, Beaver Cove Area, (92L 046 & 056) by  
 J. T. Shearer, M.Sc., P. Geo., Dated February 1, 2002

26,783

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