

# PROSPECTING and GEOLOGICAL RECEIVED REPORT

SEP 6 - 2001

Gold Commissioner's Office  
VANCOUVER

on the

## CHEMAINUS IRON DEPOSIT (LADY C & D IRON OXIDE ZONES)

Holyoak 1 - 15 Claims  
(Tenure #377828-377833, 378047-378043,  
379883-379885 & 381780-381783)  
Victoria & Nanaimo Mining Divisions  
Banon Creek, Ladysmith-Chemainus Area

Between Longitude 123°47' - 123°59'  
Between Latitude 48°53' - 48°57'  
NTS 92B/13 (92B.091, 092, 081, 082)

Owned by

Homegold Resources Ltd.  
#5-2330 Tyner St.  
Port Coquitlam, B.C.  
V3C 2Z1  
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Website: [www.HomegoldResources.com](http://www.HomegoldResources.com)

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

26,629

Prepared by

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

June 15, 2001

Fieldwork Completed Between June 15, 2000 and June 1, 2001

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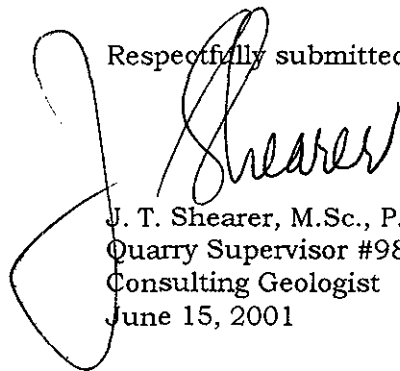
## 1.0 FACT SHEET and SUMMARY

| <b>FACT SHEET</b>                             |  |
|---|--|
| <b>CORPORATE DATA</b>                         |  |
| PROJECT NAME:                                 | Chemainus Iron Project   |
| COMPANY NAME AND ADDRESS:                     | Holyoak Claims<br>Homegold Resources Ltd.<br>Unit 5 - 2330 Tyner St.<br>Port Coquitlam, B. C.<br>V3C 2Z1<br>Telephone: 604-970-6402<br>FAX: 604-944-6102<br>E-mail: <a href="mailto:jo@homegoldResources.com">jo@homegoldResources.com</a> |
| CONTACT/TITLE:                                | J.T. (Jo) Shearer, M.Sc., P.Geo.,<br>Quarry Supervisor #98-3550<br>or<br>Murray McClaren, B.Sc., F.G.A.C   |
| <b>PROJECT DETAILS</b>                        |  |
| PROJECT LOCATION:                             | South of Holland lake  |
| ESTIMATED CAPITAL COST:                       | \$500,000 approximately  |
| MINERALS:                                     | Magnetite  |
| MINE SYSTEM:                                  | Quarry (minor overburden or waste)   |
| ESTIMATED PRODUCTION:                         | 100,000 tonnes per year  |
| PROCESS:                                      | Jaw and cone crushers/stockpile  |
| PROPOSED MINE LIFE:                           | 10 years plus  |
| <b>POSSIBLE MINERAL POTENTIAL</b>             |  |
| GEOLOGICAL POTENTIAL:                         | 600,000 tonnes plus  |
| AVERAGE GRADE OF MATERIAL                     | 90% Magnetite  |
| CUT-OFF GRADE:                                | Upgrading with Magnetite Separator   |
| POTENTIAL FOR ADDITIONAL GEOLOGICAL RESERVES: | Very Large<br>>6 km of strike length   |
| <b>LOGISTICS</b>                              |  |
| ROAD:   | Road from Ladysmith via the Tyee Mainline (16km)   |
| ACCESS TO SITE:                               | Truck  |
| SHIPPING:                                     | Via barge to Vancouver, BC from Chemainus if required  |
| POWER SUPPLY:                                 | On-site generation for crusher   |
| <b>POSSIBLE WORKFORCE INFORMATION</b>         |  |
| OPERATIONAL WORKFORCE:                        | <b>Quality Control:</b> 1 person 6 months per year<br><b>Quarrying, crushing and stockpiling:</b> 4 to 5 people 4 months per year<br><b>Shipping:</b> 2 people 10 months per year<br><b>Trucking:</b> 2 Trucks 10 months per year          |
| CONSTRUCTION WORKFORCE:                       | 10 people for 4 months   |
| HOUSING OPTIONS:                              | At home for local workers - Ladysmith/Chemainus  |
| INDIRECT EMPLOYMENT:                          | 5 to 6 person years (Purchased Services)   |

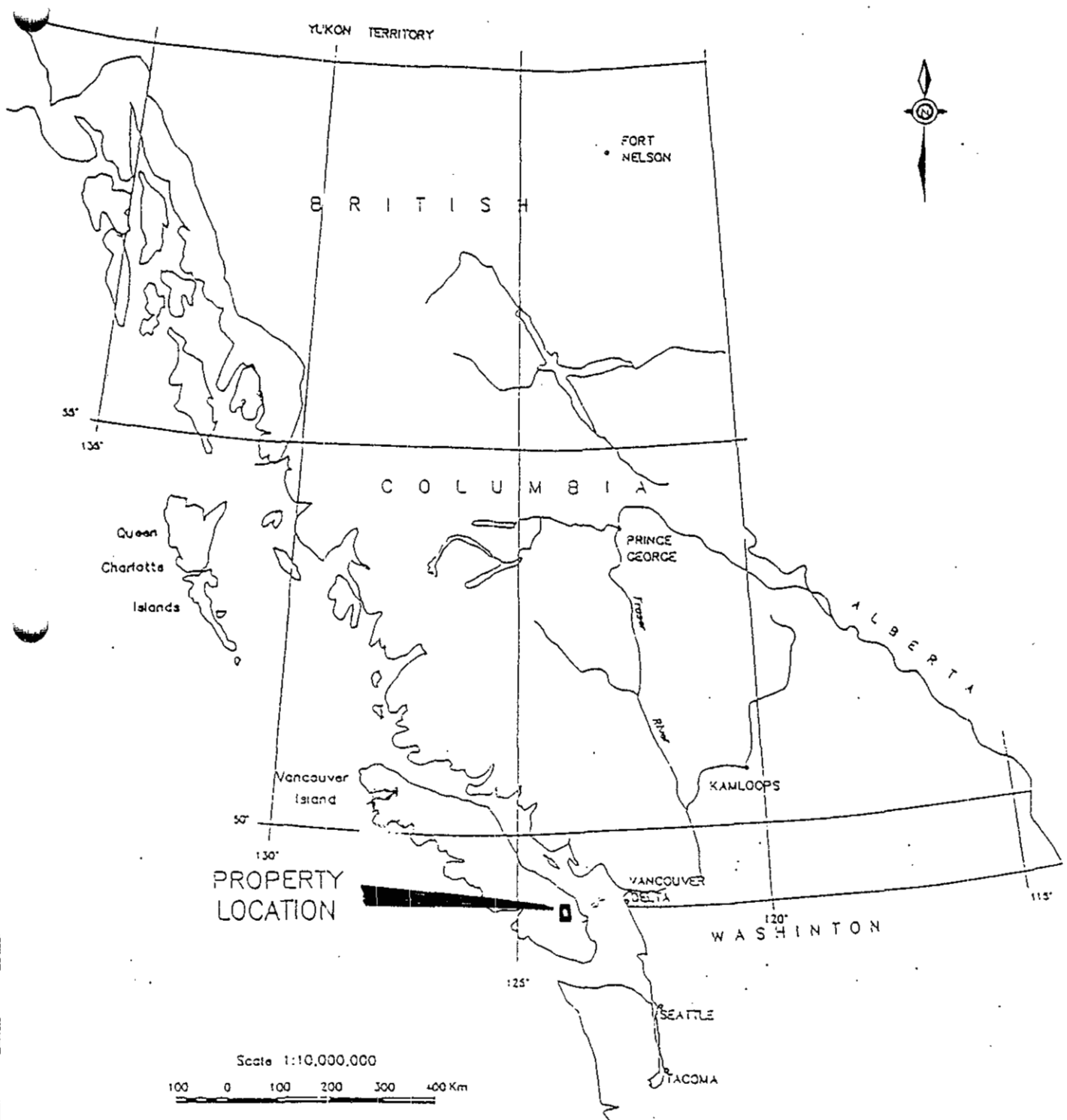
## 1.1 SUMMARY

1. The known Iron Oxide Zones covered by the Holyoak Claims are located between the Towns of Ladysmith and Chemainus about 3 to 4 km southwest of the Island Highway (Lady C & D) and within the Chipman Creek Valley (Lady A) approximately 7 km west of the Lady C.
2. Zones of massive magnetite have been intersected in diamond drilling up to 8m in thickness (Lady D) and a low grade general reserve has been calculated from early drilling (1953) on the Lady A (366,000 tonnes averaging 25% Fe).
3. The iron oxide zones are exhalative horizons in the Devonian Age Nitinat Formation (part of the Sicker Group) and typically form magnetite with a relatively high specific gravity (S.G.).
4. The claims, Holyoak 1-15, cover approximately 6 km of strike length of the Lady D to Lady C magnetite horizon between Holland Lake and the Chemainus River.
5. The separate Holyoak 16-21 Claims cover approximately 4 km of strike length between the Lady A deposit in Chipman Creek, which was drill tested in 1953 and the Lady B showing to the northwest.
6. Thinsections and polished sections of massive Lady C magnetite exhibit about 90% magnetite in a gangue of garnet lenses with minor epidote. There are minor disseminated grains of specular hematite (?).
7. Whole rock analysis of Lady C magnetite and gangue give 87.54% Fe<sub>2</sub>O<sub>3</sub>, 6.35% SiO<sub>2</sub>, 1.49% Al<sub>2</sub>O<sub>3</sub>, 3.51% CaO, 0.27% P<sub>2</sub>O<sub>5</sub> and 0.06% TiO<sub>2</sub>.
8. Trace element analysis (ICP) of Lady C magnetite and gangue gives 900 ppm P, 1410 ppm Mn, 135 ppm Ni, but only 13 ppm Cr, 24 ppm Bi, 98 ppm Co, 10 ppm Ga, 8 ppm Pb 15.5 ppm Cd, <2ppm As, and 0.01 % S.
9. Potential niche markets for such a specialized products include super-heavy concrete in radiation shielding at the proposed Triumph Research Facility, pipe anchors on the proposed Sumas-Duncan Natural Gas pipeline and premium sandblasting media.
10. A future work program consisting of (a) rehab of a 700m section of road to give access to Lady C showing, (b) excavator trenching, (c) limited diamond drilling is proposed for the near term.
11. Preliminary sampling of the Lady D and Lady C showings suggests regional continuity along a single stratabound exhalative horizon.

Respectfully submitted,



J. T. Shearer, M.Sc., P.Geo.  
Quarry Supervisor #98-3550  
Consulting Geologist  
June 15, 2001



|                                    |                       |                  |                          |             |
|------------------------------------|-----------------------|------------------|--------------------------|-------------|
| HOMEGOLD RESOURCES LTD.            |                       |                  |                          |             |
| HOLYOAK CLAIMS                     |                       |                  |                          |             |
| MAGNETITE PROPERTY<br>LOCATION MAP |                       |                  |                          |             |
| SCALE<br>as shown                  | DATE<br>June 15, 2001 | N.T.S.<br>92B/13 | WORK BY<br>J. T. Shearer | FIGURE<br>1 |

## 2.0 INTRODUCTION

The extensive exhalative magnetite-jasper horizons on the Holyoak 1-15 Claims may potentially fill the high value specialty market of Heavy Aggregates and premium sandblasting media.

The raw (without milling) rock density of the Lady C samples has been determined to be 4.56. Possible markets could be heavy aggregate for high-density concrete, heavy media for coal washing, sandblasting abrasives, high-density filter media and radiation shielding aggregates. Two major construction projects that may start in early 2002 are the expansion of the sub-atomic research TRIUMP facility at the University of British Columbia and the Sumas-Duncan Natural Gas Pipeline (for pipe anchors) by BC Hydro and Williams Pipeline Company. There may also be increasing application to special designed heavy concrete foundations in areas of high hydrostatic ground pressure in areas like Richmond B.C.

The Ladysmith-Chemainus area lies about 75 km northwest of Victoria. The area lies at the southeastern end of the Vancouver Island Ranges and is characterized by fairly rugged topography with fault-line scarps and fault-controlled valleys, accentuated by glaciation. The area straddles the eastern end of the Cowichan uplift, one of a series of major geanticlinal structures constituting the structural fabric of Vancouver Island.

The oldest rocks in the area belong to the Paleozoic Sicker group, which contain volcanic and sedimentary units ranging from Middle Devonian to Early Permian age. The Devonian Sicker Group is a thick package of lower greenschist facies, metavolcanics and volcanoclastics rocks that formed in an oceanic island-arc environment.

Southern Vancouver Island has a complex structural history with frequent rejuvenation of previous structures. All Paleozoic rocks are affected by a series of southeast trending, upright to overturned, southwest-verging folds.

Iron oxide bearing jasper and chert occur at many stratigraphic levels within the Sicker Group, principally associated with the Nitinat Formation in the Banon Creek area (on the Holyoak property) and the McLaughlin Ridge Formation in the Chipman Creek - Reinhart Creek area (for example Lady A [029] and the Trek property). The jasper deposits consists of laminated hematite and magnetite in red or grey chert. Several deposits were investigated in the 1950s for "taconite" iron ore. Jasper beds are also found within the Fourth Lake Formation, often associated with manganese deposits. Exploration in the 1980's was concentrated on the gold potential of the volcanic-hosted jaspers.

**Mineral Inventory Layers**

- ⊗ MINFILE number label
- ⊗ Developed Prospect
- ⊗ Past Producer
- ⊗ Producer
- ⊗ Prospect
- ⊗ Showing
- All Others

**Mineral Titles Layers**

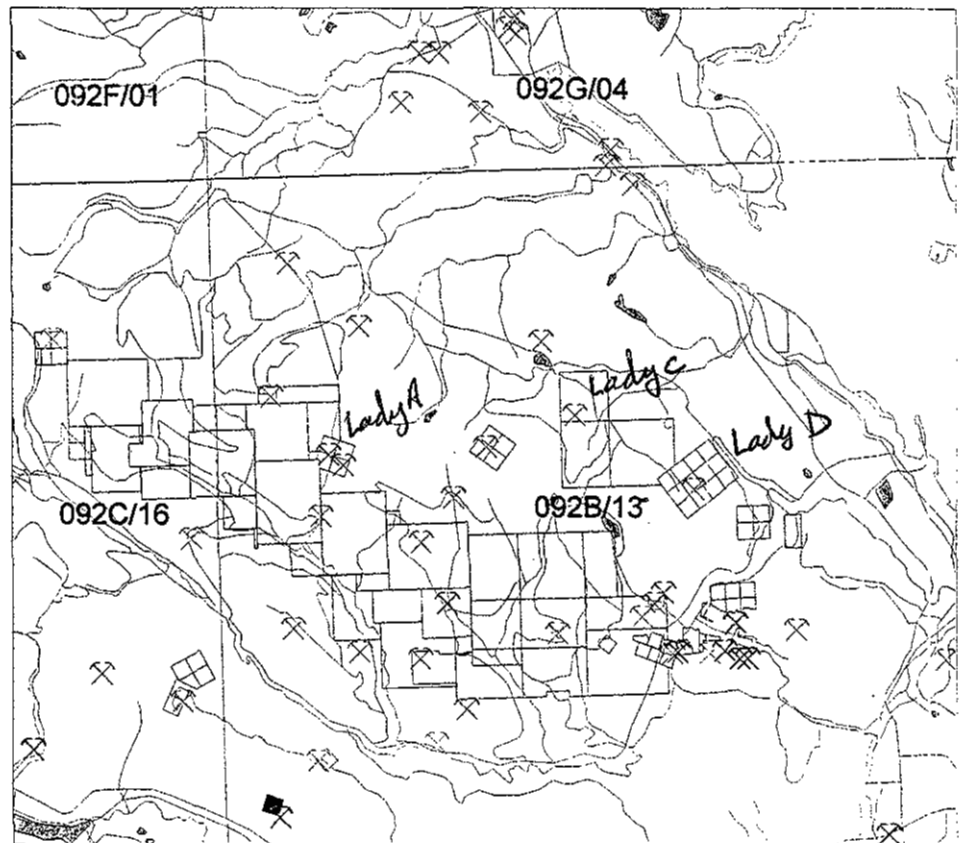
- Mineral titles outline (<1M)
- All Others

**Topographic Layers**

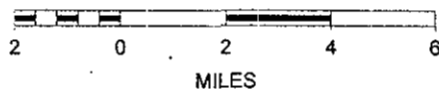
- Roads 1:250K (<2M)
- ☾ Lakes 1:250K (<2M)
- Rivers 1:250K (<2M)

**Grid Layers**

- Grid 1:50K labels
- BC Border 1:250K (<1M)



SCALE 1 : 231,984



|   |                      |                  |                          |              |
|---|----------------------|------------------|--------------------------|--------------|
| HOMEGOLD RESOURCES LTD.                   |                      |                  |                          |              |
| HOLYOAK CLAIMS                            |                      |                  |                          |              |
| MAGNETITE PROPERTY<br>DETAIL LOCATION MAP |                      |                  |                          |              |
| SCALE<br>as shown                         | DATE<br>June 15,2001 | N.T.S.<br>92B/13 | WORK BY<br>J. T. Shearer | FIGURE<br>1a |

### 3.0 LOCATION and ACCESS

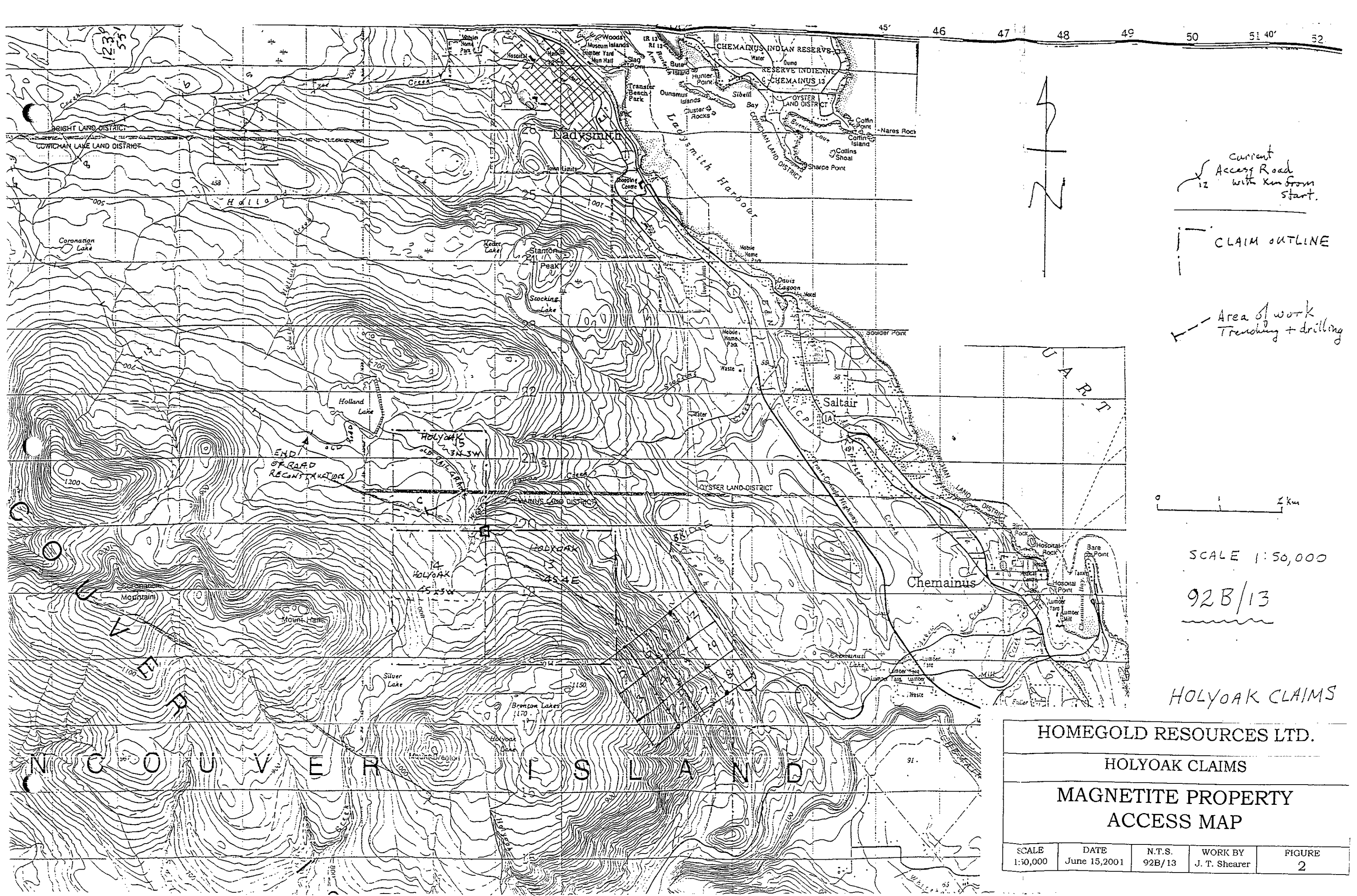
The eastern area, covered by the Holyoak 1-15 Claims, is situated between the towns of Ladysmith and Chemainus approximately 3 to 4 km southwest of the Island Highway. Access to the upper areas at an elevation between 600 to 700 metres is best served by about 18 km of good logging road (the Tyee Mainline of TimberWest), which starts just north of Ladysmith. Prior to accessing the road network, it is good practice to contact John Kay, phone: 250-729-3770, Operations Engineer at the TimberWest office at Nanaimo Lakes to check on harvesting plans or road closures. Active logging was occurring in 2001 along the Holland Lake Mainline.

The lower elevations toward the south can be accessed from the Chemainus River Road or off the Island Highway at a point 2 km south of Ladysmith. This last route goes through a gate maintained by the Saltair Water Board (North Cowichan District Municipality).

The road to the 1986 diamond drillsites can be accessed via recent logging roads, which intersect the Chemainus River Mainline, a distance of 6.1 km west of the Island Highway. Weyerhaeuser Ltd. maintains a gate 1.2 km west of the Island Highway near the Crofton exit.

The western area, the subject of a future report, is covered by the Holyoak 16-21 claims, west of Chipman Creek. The Chipman Creek Road is accessed from the Tyee Mainline west of the Holland Lake turnoff. A major electrical transmission line is located in the Chipman Valley.

The Town of Ladysmith takes its domestic water supplies from Holland Lake just to the north of the Holyoak Claims. Discussions with the public works officials of Ladysmith have indicated minimal concern about work on the Holyoak Claims. The North Cowichan District Municipality (Crofton/Saltair/Chemainus) draws its water supply from Holyoak Lake via the main branch of Banon Creek to a reservoir just above the Chemainus River. Discussions with the District Engineer point to the Municipality having minor concerns about a work program for magnetite.



Current Access Road with Km from start.

CLAIM OUTLINE

Area of work Trenching + drilling

0 1 2 km

SCALE 1:50,000

92B/13

HOLYOAK CLAIMS

|                               |                       |                  |                          |             |
|-------------------------------|-----------------------|------------------|--------------------------|-------------|
| HOMEGOLD RESOURCES LTD.       |                       |                  |                          |             |
| HOLYOAK CLAIMS                |                       |                  |                          |             |
| MAGNETITE PROPERTY ACCESS MAP |                       |                  |                          |             |
| SCALE<br>1:50,000             | DATE<br>June 15, 2001 | N.T.S.<br>92B/13 | WORK BY<br>J. T. Shearer | FIGURE<br>2 |

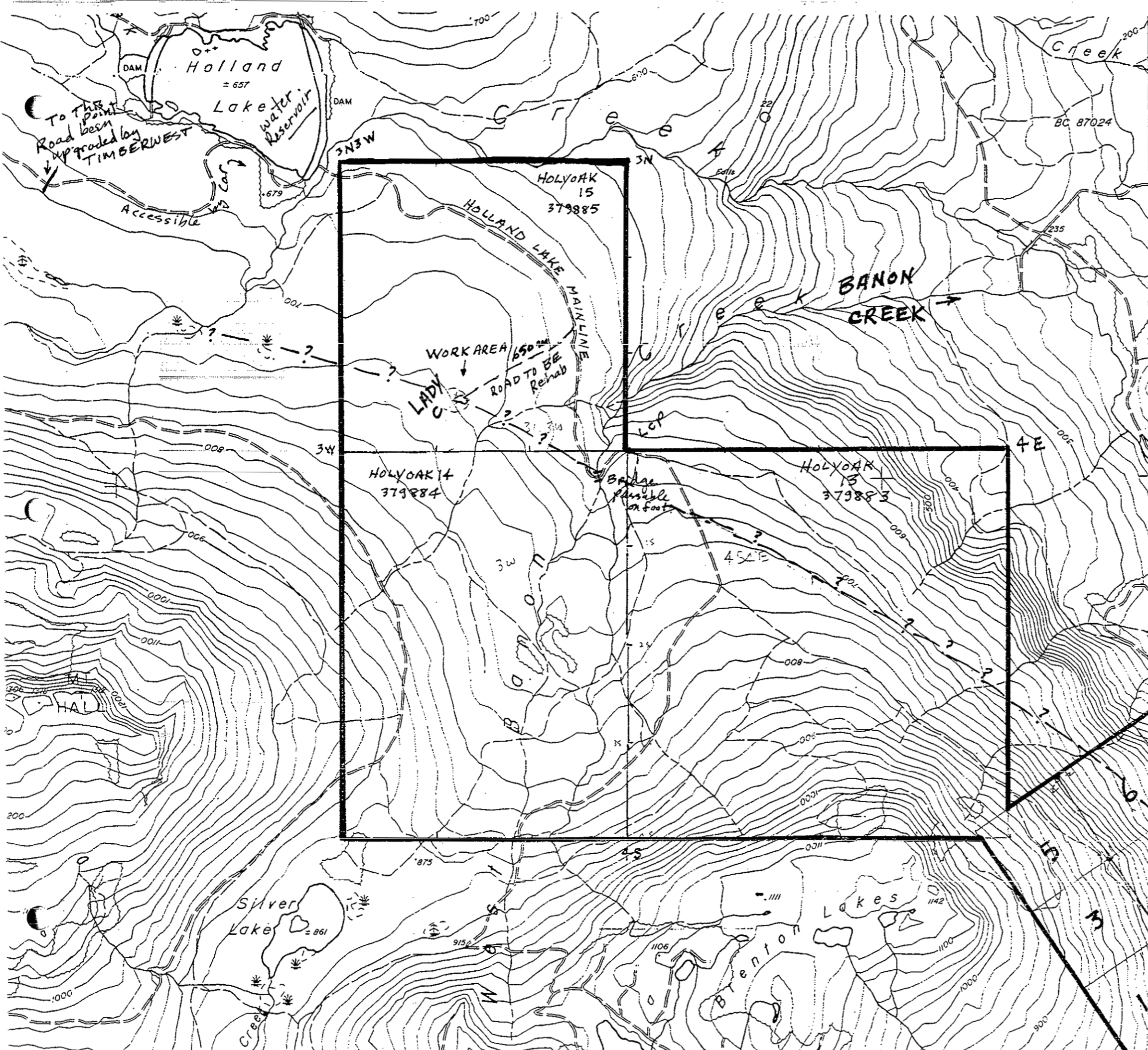
## 4.0 CLAIM STATUS

The property consists of the Holyoak 1-15 Mineral Claims as shown on Figure 3 and Table I.

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

| Claim Name | Tenure # | Size   | Units | Date Located    | Current Anniversary Date* | Owner                       |
|------------|----------|--------|-------|-----------------|---------------------------|-----------------------------|
| Holyoak 1  | 377828   | 2 post | 1     | June 9, 2000    | June 9, 2003              | J. T. Shearer & M. McClaren |
| Holyoak 2  | 377829   | 2 post | 1     | June 9, 2000    | June 9, 2003              | J. T. Shearer & M. McClaren |
| Holyoak 3  | 377830   | 2 post | 1     | June 9, 2000    | June 9, 2003              | J. T. Shearer & M. McClaren |
| Holyoak 4  | 377831   | 2 post | 1     | June 9, 2000    | June 9, 2003              | J. T. Shearer & M. McClaren |
| Holyoak 5  | 377832   | 2 post | 1     | June 9, 2000    | June 9, 2003              | J. T. Shearer & M. McClaren |
| Holyoak 6  | 377833   | 2 post | 1     | June 9, 2000    | June 9, 2003              | J. T. Shearer & M. McClaren |
| Holyoak 7  | 378047   | 2 post | 1     | June 21, 2000   | June 21, 2003             | J. T. Shearer & M. McClaren |
| Holyoak 8  | 378048   | 2 post | 1     | June 21, 2000   | June 21, 2003             | J. T. Shearer & M. McClaren |
| Holyoak 9  | 378049   | 2 post | 1     | June 21, 2000   | June 21, 2003             | J. T. Shearer & M. McClaren |
| Holyoak 10 | 378050   | 2 post | 1     | June 21, 2000   | June 21, 2003             | J. T. Shearer & M. McClaren |
| Holyoak 11 | 378051   | 2 post | 1     | June 21, 2000   | June 21, 2003             | J. T. Shearer & M. McClaren |
| Holyoak 12 | 378052   | 2 post | 1     | June 21, 2000   | June 21, 2003             | J. T. Shearer & M. McClaren |
| Holyoak 13 | 379883   | 4S3E   | 16    | August 18, 2000 | August 18, 2003           | J. T. Shearer & M. McClaren |
| Holyoak 14 | 379884   | 4S3W   | 12    | August 18, 2000 | August 18, 2003           | J. T. Shearer & M. McClaren |
| Holyoak 15 | 379885   | 3N3W   | 9     | August 19, 2000 | August 19, 2003           | J. T. Shearer & M. McClaren |

\* with application of Assessment credit as documented in this report.



|                             |                       |                  |                          |             |
|-----------------------------|-----------------------|------------------|--------------------------|-------------|
| HOMEGOLD RESOURCES LTD.     |                       |                  |                          |             |
| HOLYOAK CLAIMS              |                       |                  |                          |             |
| MAGNETITE PROPERTY TRIM MAP |                       |                  |                          |             |
| SCALE<br>1:20,000           | DATE<br>June 15, 2001 | N.T.S.<br>92B/13 | WORK BY<br>J. T. Shearer | FIGURE<br>3 |

SCALE  
1:20,000

Notes  
Digital data and additional copies of the MAPS-BC, Surveys and Resource Mapping Lands, Parliament Buildings, Victoria B.C

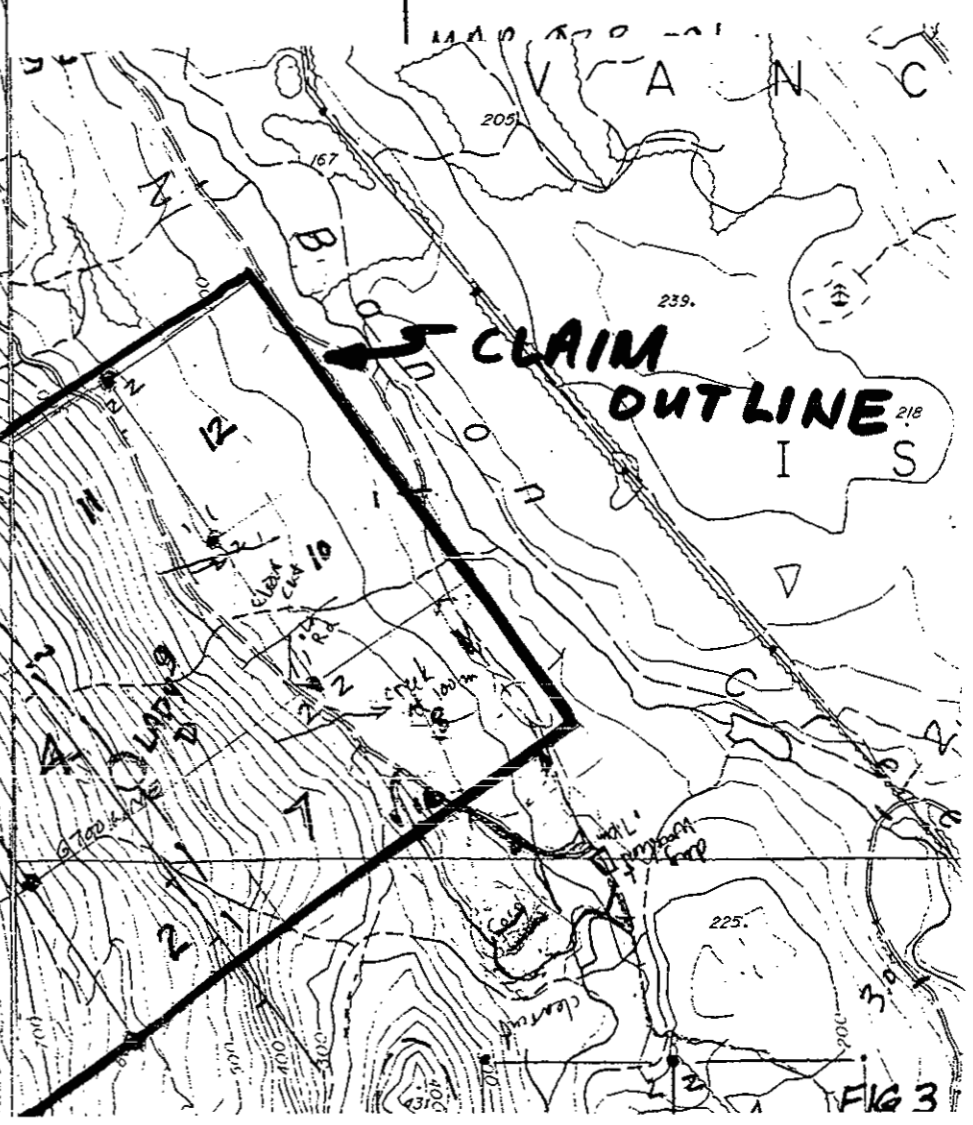
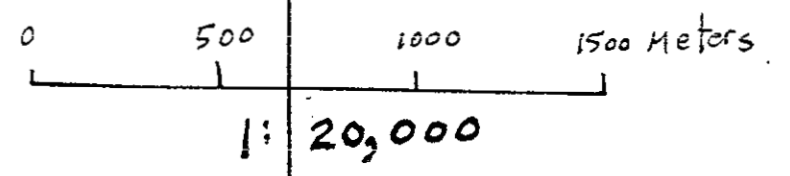


FIG 3

TABLE I

List of Claims Cont..

| Claim Name | Tenure # | Size   | Units | Date Located     | Current Anniversary Date | Owner                       |
|------------|----------|--------|-------|------------------|--------------------------|-----------------------------|
| Holyoak 16 | 381780   | 2 post | 1     | October 28, 2000 | October 28, 2001         | J. T. Shearer & M. McClaren |
| Holyoak 17 | 381781   | 2 post | 1     | October 28, 2000 | October 28, 2001         | J. T. Shearer & M. McClaren |
| Holyoak 18 | 381782   | 2 post | 1     | October 28, 2000 | October 28, 2001         | J. T. Shearer & M. McClaren |
| Holyoak 19 | 381783   | 2 post | 1     | October 28, 2000 | October 28, 2001         | J. T. Shearer & M. McClaren |
| Holyoak 20 | 385782   | 1Nx5W  | 5     | April 20, 2001   | April 21, 2002           | J. T. Shearer & M. McClaren |
| Holyoak 21 | 385783   | 3Sx2W  | 6     | April 20, 2001   | April 21, 2002           | J. T. Shearer & M. McClaren |

Claims 1-15 = 49 units

Claims 16-21 = 15 units

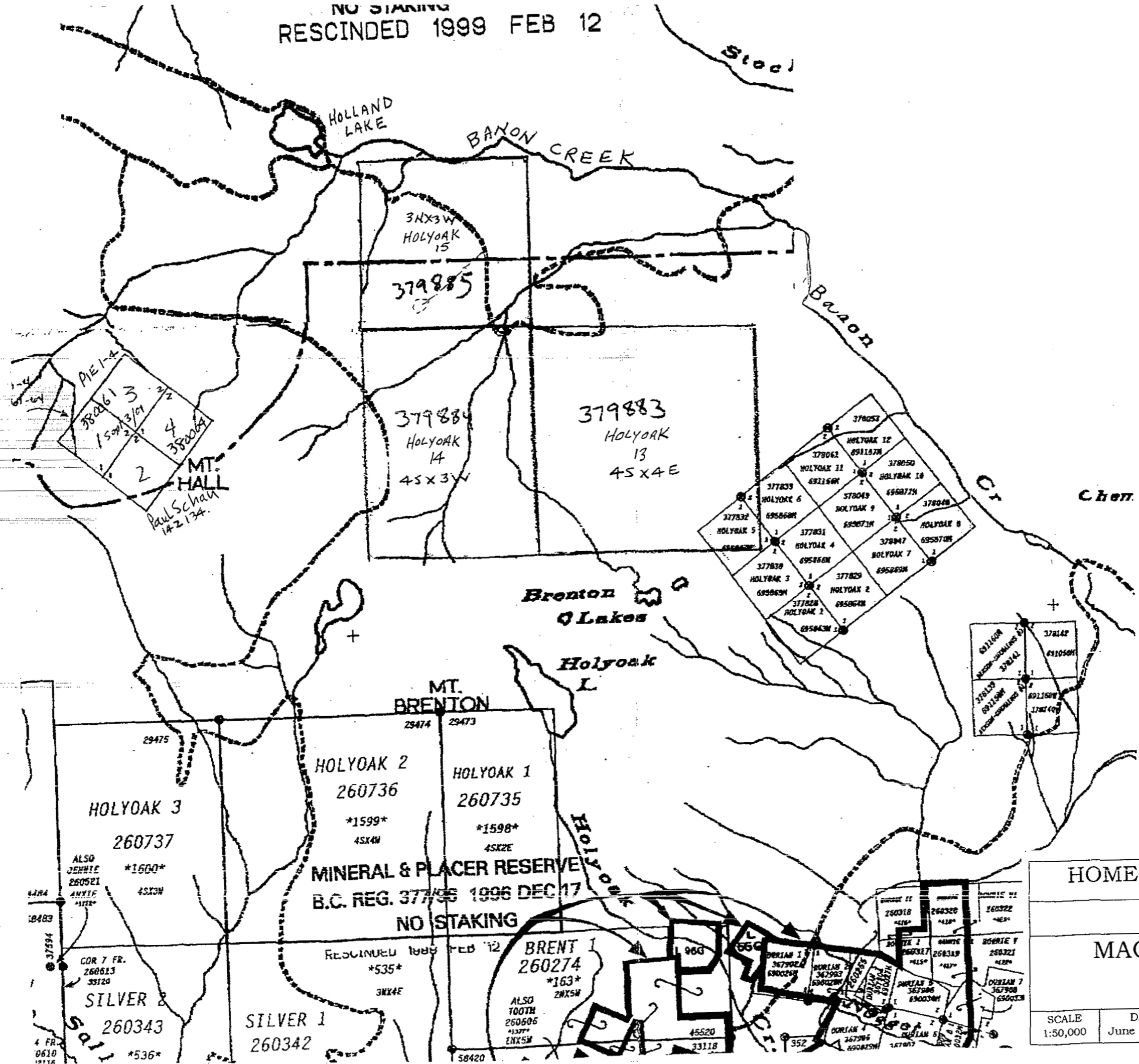
Total 63 units

The property consists of an eastern group, Holyoak 1-15 (total 49 units), of which work is documented in this report and a western group, Holyoak 16-21 (total 15 units), which will be the subject of a separate future 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.

NO STAKING  
RESCINDED 1999 FEB 12



GEOLOGICAL SURVEY BRANCH  
ASSOCIATED REPORT

26,629

- OUTLINE OF CLAIMS HOLYOAK 1-15  
- OUTLINE OF WORK AREA.

|                              |                       |                  |                          |             |
|------------------------------|-----------------------|------------------|--------------------------|-------------|
| HOMEGOLD RESOURCES LTD.      |                       |                  |                          |             |
| HOLYOAK CLAIMS               |                       |                  |                          |             |
| MAGNETITE PROPERTY CLAIM MAP |                       |                  |                          |             |
| SCALE<br>1:50,000            | DATE<br>June 15, 2001 | N.T.S.<br>92B/13 | WORK BY<br>J. T. Shearer | FIGURE<br>4 |

## 5.0 HISTORY

Exploitation of the mineral resources of the Chemainus-Cowichan area has been undertaken since the late nineteenth century (1900), though originally restricted to non-metallic deposits. The turn of the century saw commencement of exploration for gold and base metals, particularly in the Chemainus River and Copper Canyon areas. Production was limited, except for the three mines on Mount Sicker (Leonora, Tyee and Richard III). The Twin J (Leonora) mine on Mount Sicker was returned to production from 1943 to 1947. Over the next 30 years only sporadic exploration activity took place in the area for gold, base metals, manganese and iron ore. The 1980's cycle of exploration followed the discovery of the H-W polymetallic massive sulphide orebody at Buttle Lake in 1979. Extensive drilling has been carried out on many properties and approximately 600 metres of exploration underground workings were developed by Abermin Corporation on the Coronation zone of the Lara Property in 1988.

Polymetallic massive sulphide deposits have been the principal exploration targets in the Sicker Group rocks following the success of exploration at Westmin Resources Limited's Buttle Lake mine. The massive sulphides are hosted by the felsic volcanic tuffs of the McLaughlin Ridge Formation and restricted to a belt running from Chipman Creek to Mount Richards, in the hanging wall of the Fulford Fault. Major occurrences are found on the Mount Sicker and Lara properties. Sulphides have also been reported from southern Saltspring Island in the footwall of the Fulford Fault.

On Mount Sicker, massive sulphides were discovered in 1898 and production was achieved from four mines (Leonora, Tyee, Richard III and Victoria) until 1909. Further production ensued from the consolidated property operated by Twin J Mines Limited from 1943-47. Minor production also occurred in 1951. In total, 266,408 tonnes of ore has been produced yielding 9,192,550 kilograms of copper, 20,847,570 kilograms of zinc, 1,245,756 grams of gold and 26,166,611 grams of silver (Eastwood, 1979). Lead and cadmium were also recovered from the ore. The combined property was explored in the 1980's by Minnova Inc. (formerly Corporation Falconbridge Copper). Baritic laminated sulphides form two orebodies located within a distinctive, thinly bedded package of intercalated siliceous argillaceous sediments and tuffs up to 70 metres thick. The local stratigraphy is, however, disrupted by folding, faulting (pre-Triassic as well as Tertiary) and the intrusion of two thick, late Triassic gabbro sills.

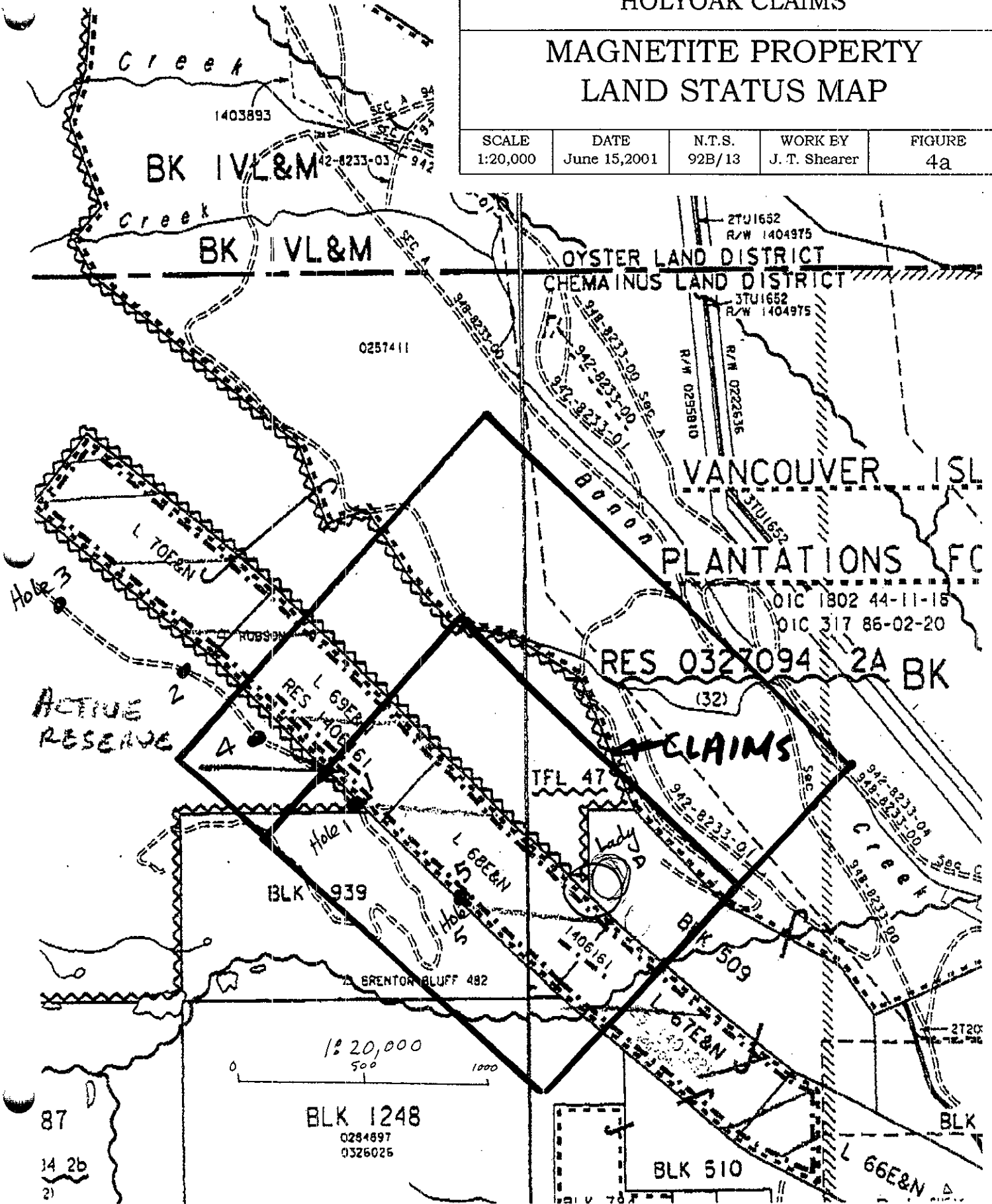
Exploration by Abermin Corporation on the Lara property started in 1981, continuing from late 1988 under the auspices of Minnova Inc. Volcanic rocks of the McLaughlin Ridge Formation in the northern part of the property are thrust over a panel of Fourth Lake Formation sediments, Late Triassic gabbros and Nanaimo Group sediments to the south. The volcanic package contains a lower felsic tuff, a middle andesitic crystal-lapilli tuff and an upper felsic crystal tuff. Boundaries between these units are probably structural rather than stratigraphic. Significant mineralization is hosted by the lower felsic tuff at two, possibly three, stratigraphic levels, of which the Coronation zone is the most promising. Mineralization consists of disseminated and bedded pyrite-sphalerite-chalcopyrite-galena within quartz crystal tuffs. Silica and carbonate are the principal gangue minerals, barite is lacking. The Coronation zone has been delineated by drilling for about 2 kilometres along strike, with intersections up to 14 metres wide and averaging 6 metres. Low-grade sphalerite-pyrite-chalcopyrite mineralization is also found in the upper felsic crystal tuffs in which carbonate alteration is widespread. Other massive sulphide showings have been reported in the Chipman Creek area (the Anita, MINFILE # 092B 037), in Copper Canyon (Sharon, 040; Copper Canyon, 086) and on Mount Richards (Yreka, 038, Jan [New Ironclad], 049).

# HOMEGOLD RESOURCES LTD.

## HOLYOAK CLAIMS

### MAGNETITE PROPERTY LAND STATUS MAP

|                   |                       |                  |                          |              |
|-------------------|-----------------------|------------------|--------------------------|--------------|
| SCALE<br>1:20,000 | DATE<br>June 15, 2001 | N.T.S.<br>92B/13 | WORK BY<br>J. T. Shearer | FIGURE<br>4a |
|-------------------|-----------------------|------------------|--------------------------|--------------|



87  
14 2b  
21

LAND STATUS MAP \*\* TOTAL PAGE.03 \*\*

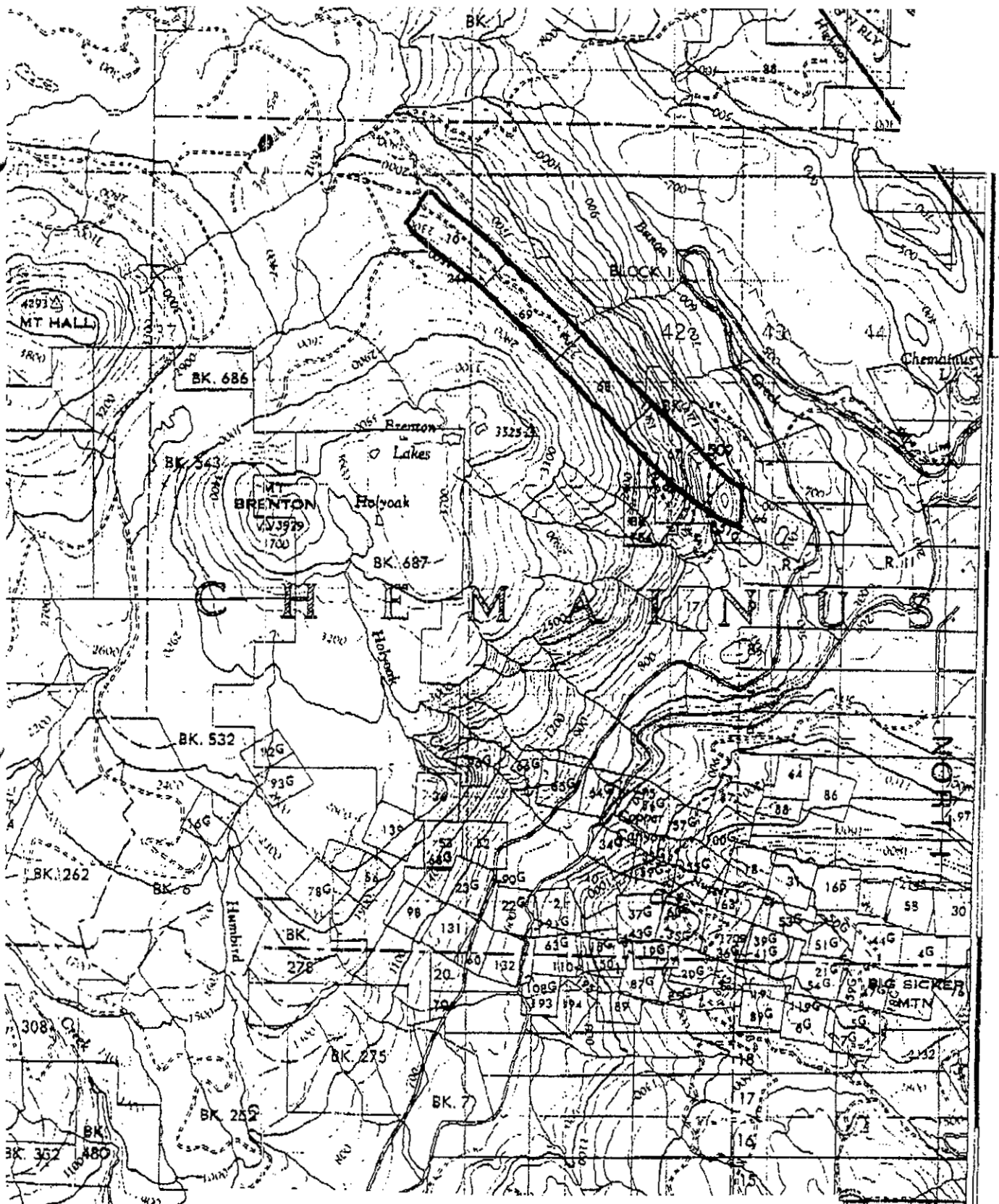
FIG 4a

Iron oxide bearing jasper and chert occur at many stratigraphic levels within the Sicker Group, principally associated with the Nitinat Formation in the Banon Creek area (for example the Holyoak property) and the McLaughlin Ridge Formation in the Chipman Creek - Reinhart Creek area (for example Lady A [029] and the Trek property). The jasper deposits consist of laminated hematite and magnetite in red or grey chert. Several deposits were investigated in the 1950s for taconite iron ore. Jasper beds are also found within the Fourth Lake Formation, often associated with manganese deposits. Exploration in the 1980's concentrated on the gold potential of the volcanic-hosted jaspers.

In 1984 Utah Mines completed a major program of geological mapping and geochemistry on the area now covered by the Holyoak 1-15 Claims (Holland, 1984). Further geochemistry and geophysics was completed in 1985 and 1986 (Holland, 1985 & 1986).

The 1986 field season on the property consisted of an eight-hole drill program by Utah Mines, totalling 3,180.5 metres of NQ drill core. The drill program and related roadwork and drill site preparation were completed between the period of May 1, 1986 and November 25, 1986.

A total of 290 rock core samples were analysed by Acme Labs in Vancouver. The samples were analysed for 30 element ICP, whole rock geochemistry and Au by AA.



**HOMEGOLD RESOURCES LTD.**

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**HOLYOAK CLAIMS**

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**MAGNETITE PROPERTY**

**LAND STATUS**

**(Showing E + N Lots)**

| SCALE    | DATE          | N.T.S. | WORK BY       | FIGURE |
|----------|---------------|--------|---------------|--------|
| as shown | June 15, 2001 | 92B/13 | J. T. Shearer | 4b     |



Chemainus 3 1/2 m

55'

10'

10'

10'

10'

10'

10'

10'

10'

10'

10'

80

## 6.0 REGIONAL GEOLOGY

Mineralization in southern Vancouver Island has resulted from three major metallogenic episodes, one of syngenetic character, the other two epigenetic. The localization of metal deposits is controlled by the interplay of stratigraphy and spatial association with later intrusions and structures (Massey et. al., 1989). Much of the regional description of the geological environment is modified after the recent work published in 1992 by N. Massey and co-workers.

The Sicker Group, named after the section on Mount Sicker (Clapp, 1912) includes the entire Paleozoic rock sequence of Vancouver Island. It is composed mainly of mafic and felsic volcanic rocks and less abundant clastic and carbonate rocks that have been affected by all phases of the complex history of deformation and metamorphism of the Island (Muller, 1980). It is important as the host rock to the polymetallic massive sulfide deposits at Myra Creek, west of Buttle Lake and the smaller past producers at Mount Sicker.

The first major metallogenic episode took place in the Paleozoic during the development of the Sicker arc. Significant syngenetic metal mineralization is associated with these volcanic rocks. Polymetallic volcanogenic massive sulphides are restricted to two major stratigraphic units. The most important, both for past production and present exploration, is the McLaughlin Ridge Formation in which Kuroko-style massive sulphides are associated with felsic volcanics in the upper part of the sequence. They occur in a belt extending from Saltspring Island to Reinhart Creek, bounded to the south by the Fulford fault and appear to have formed close to volcanic centres. Exhalites are also found in the uppermost Duck Lake Formation, associated with the initial stages of arc development. These are dominantly oxide facies although sulphides are present in some areas, for example the Regina property in the China Creek area south of Port Alberni. The oxide facies deposits themselves may be of some importance for their gold content, particularly where cut by later structures that may have enhanced the grade, as in the 900 zone of the Debbie property, Port Alberni area. This is somewhat analogous to the gold/iron formation association common in many Archean greenstone belts. However, within the map area, the Duck Lake Formation only outcrops south of the Cowichan River but may be more extensive in the Koksilah Range further to the south. Other jasper and oxide-rich cherts occur within the Nitinat and McLaughlin Ridge formations. The final phase of mineralization during this episode was the development of thin manganese beds and sulphidic argillites within the ribbon cherts of the Shaw Creek member.

The following subdivisions have been mapped by Massey (1992):

### **Nitinat Formation**




The Nitinat Formation is generally the lowermost unit recognized in the Sicker Group in the Ladysmith-Chemainus area. It is a volcanic package characterized by pyroxene-feldspar-porphyrific basalts and basaltic andesites. They typically occur as agglomerates, breccias, lapilli tuffs and crystal tuffs that formed as pyroclastic flows, debris flows and lahars. Extensive pyroxene-phyric, amygdaloidal flows are also developed, particularly in the Banon Creek area. Pyroxenes are large, up to 1 centimetre in diameter, euhedral to subhedral and comprise 5% to 20% of the rock. Plagioclase is equally abundant, but phenocrysts are usually smaller, ranging up to 5mm in diameter. Amygdules present in flows and clasts in coarser pyroclastics are infilled with chlorite, quartz, epidote or calcite. Minor laminated duff and tuffaceous sandstone are present

**LEGEND**

Upper Cretaceous

- Nanaimo Group K3 Extension Fm: Sandstone
- K2 Haslam Fm: Shale
- K1 Benson Fm: Conglomerate

Jurassic

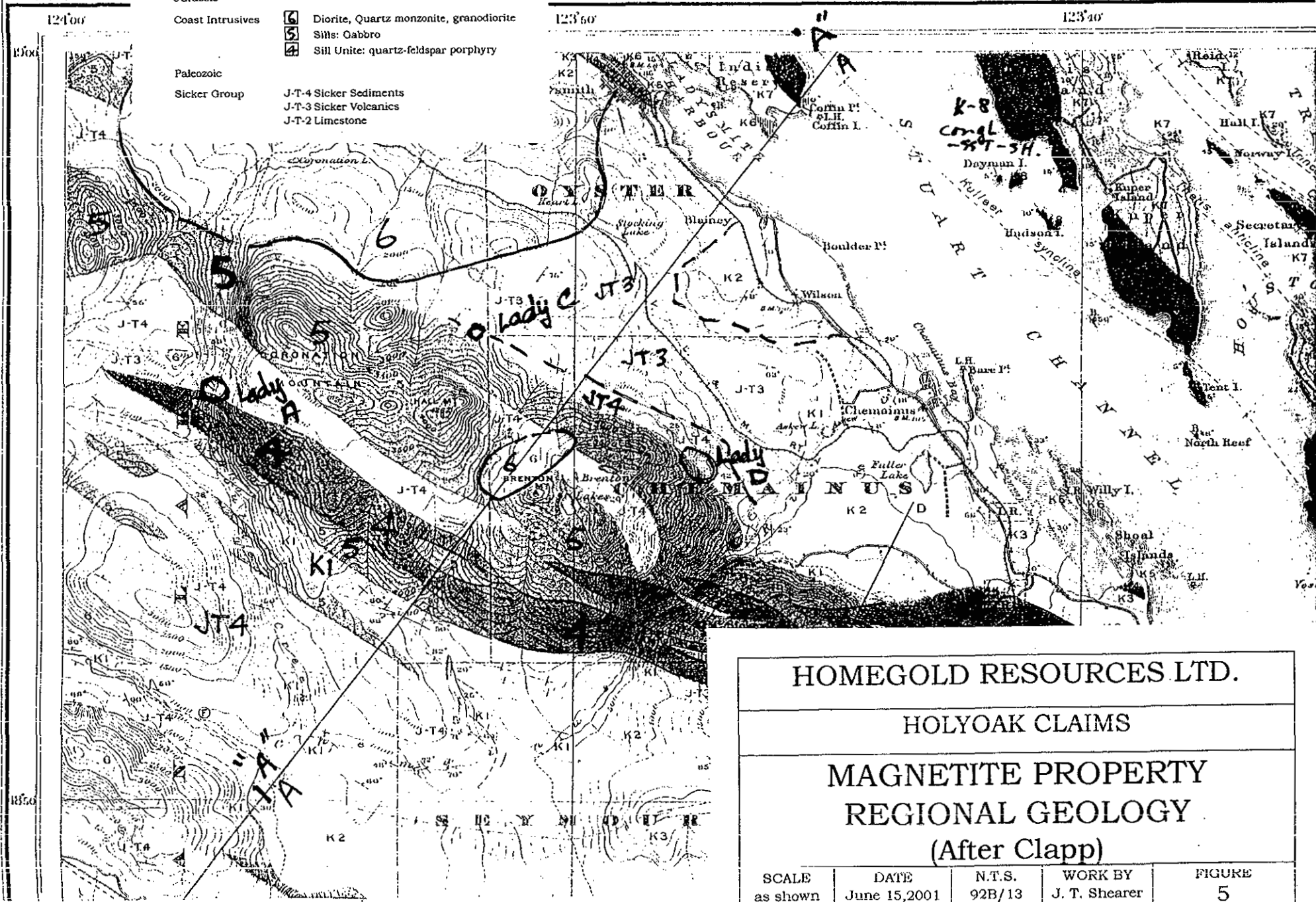
- Coast Intrusives  Diorite, Quartz monzonite, granodiorite
-  Sills: Gabbro
-  Sill Unite: quartz-feldspar porphyry

Paleozoic

- Sicker Group J-T-4 Sicker Sediments
- J-T-3 Sicker Volcanics
- J-T-2 Limestone

Structural sections along lines A-B, C-D, E-F, G-H.

Scale, horizontal and vertical, 1:25,000



locally. In the Mount Richards - Maple Bay area alteration of the agglomerates and tuff-breccias has resulted in variable epidotization. Generally the clasts are epidotized and the matrix chloritized. Within the clasts the original fabrics may be obliterated although chlorite pseudomorphs after pyroxene phenocrysts may be preserved. Alteration varies from minor to complete even in adjacent clasts. Occasionally, the tuffaceous matrix is epidotized and the clasts unaltered.

#### **Fourth Lake Formation**

(Referred to as the "Cameron River Formation" during earlier stages of the mapping.)

In the southern part of the area (Hill 60 and the Paldi inlier) the base of the Fourth Lake formation is marked by a sequence of radiolarian ribbon cherts, laminated cherts and cherty tuffs with thin argillite interbeds, 100 to 200 metres thick, informally called the Shaw Creek Chert Member. This sequence continues westward into the Cowichan Lake area. The cherts pass upwards into monotonous, thinly bedded, turbiditic sandstone-siltstone-argillite intercalations that exhibit graded bedding, flame structures, argillite rip-ups, small-scale sandstone dykes and slump folds. Thicker beds of sandstone, granule sandstone and conglomerate containing clasts of cherty material, volcanic lithic clasts.

An approximately 10m thick ferruginous chert (iron formation) horizon has been traced for 700 metres. This bed is generally composed of blue-grey cryptocrystalline quartz (sporadically jasperoidal) with up to 5% each of pyrite and specular hematite and a few per cent magnetite. A sample of this material assayed 0.3 grams per tonne gold (Assessment Report 16053, pages 34, 47, 53).

A siliceous, magnetite and pyrite-rich boulder was found a few hundred metres to the northeast of the ferruginous chert. Sulphides and magnetite occur in bands up to 5 cm thick. A sample of this material contained up to 4.8 grams per tonne gold. Another siliceous boulder from the same area contained up to 40% sulphide-rich bands, consisting of pyrite, chalcopyrite and sphalerite. A sample of brecciated, hematitic, cherty sediment float found a few hundred meters to the northwest of the iron-rich chert exposure assayed 1.44 grams per tonne gold (Assessment Report 16053).

The exhalative iron-oxide occurrences on the Holyoak Claims are summarized by Massey (1992) as follows (a more detailed description of the zones will be considered elsewhere in this report):

#### **Lady C (East)**

The Lady C (East) (092B 145) occurrence area is mistakenly mapped as being underlain by diorite and granodiorite of the Early to Middle Jurassic Island Plutonic Suite (formerly the Island Intrusions) by Massey (1992), Figure 5. There is very little outcrop in the immediate area of the showing. A more accurate map is the 1912 version by Clapp, Figure 5a.

The Lady C (east) showing was located in the area in the early 1950s and is similar to the jasper-hosted Lady D deposit (092B 076), which occurs on strike several kilometres to the southeast. The Lady D is an exhalative-type iron ore deposit, consisting primarily of magnetite, occurring at the Devonian Nitinat Formation - Fourth Lake Formation transition.

## **Lady B**

The Lady B iron ore deposit is underlain by rock of the Mississippian to Pennsylvanian Fourth Lake Formation, Buttle Lake Group. These are intruded by Late Triassic gabbro (informally known as the Mount Hall Gabbro, Massey, N. W. D. Except for a map indicating the location no other details are available (Buckham, 1953).

## **Lady D**

The Lady D area is underlain by volcanics of the Devonian Nitinat Formation consists of an exhalative iron horizon associated with jasper. The horizon is mapped at the contact of cherty tuffs above and intermediate volcanics below. It appears to pinch and swell, with observed thicknesses up to 10 metres.

In 1986, massive magnetite up to 8 metres thick was intersected in a drill hole by Utah Mines Ltd. (Hole #8). Up to 2.5% pyrite was present along fractures. An old adit and dump in the same area showed samples of massive magnetite breccia containing up to 20% pyrite with traces of chalcopyrite. Assay values were up to 0.05% copper and 0.74 grams per tonne gold (Assessment report 15749, page 14). Another nearby drill hole intersected similar mineralization. Moderate quartz veining with pyrite is present in the footwall andesite.

Work done on the showing in 1953 by Ladysmith Development Ltd. indicated that the iron zone extended along strike 540 metres (Buckham, 1953, Map A).

Zones of crackle brecciation occurring in the andesite contain magnetite, pyrite, chalcopyrite and malachite. One of these masses assayed 8.6 % copper, 42.86 grams per tonne silver and 3.22 grams per tonne gold (Holland, 1986, Assessment Report 15749, page 11).

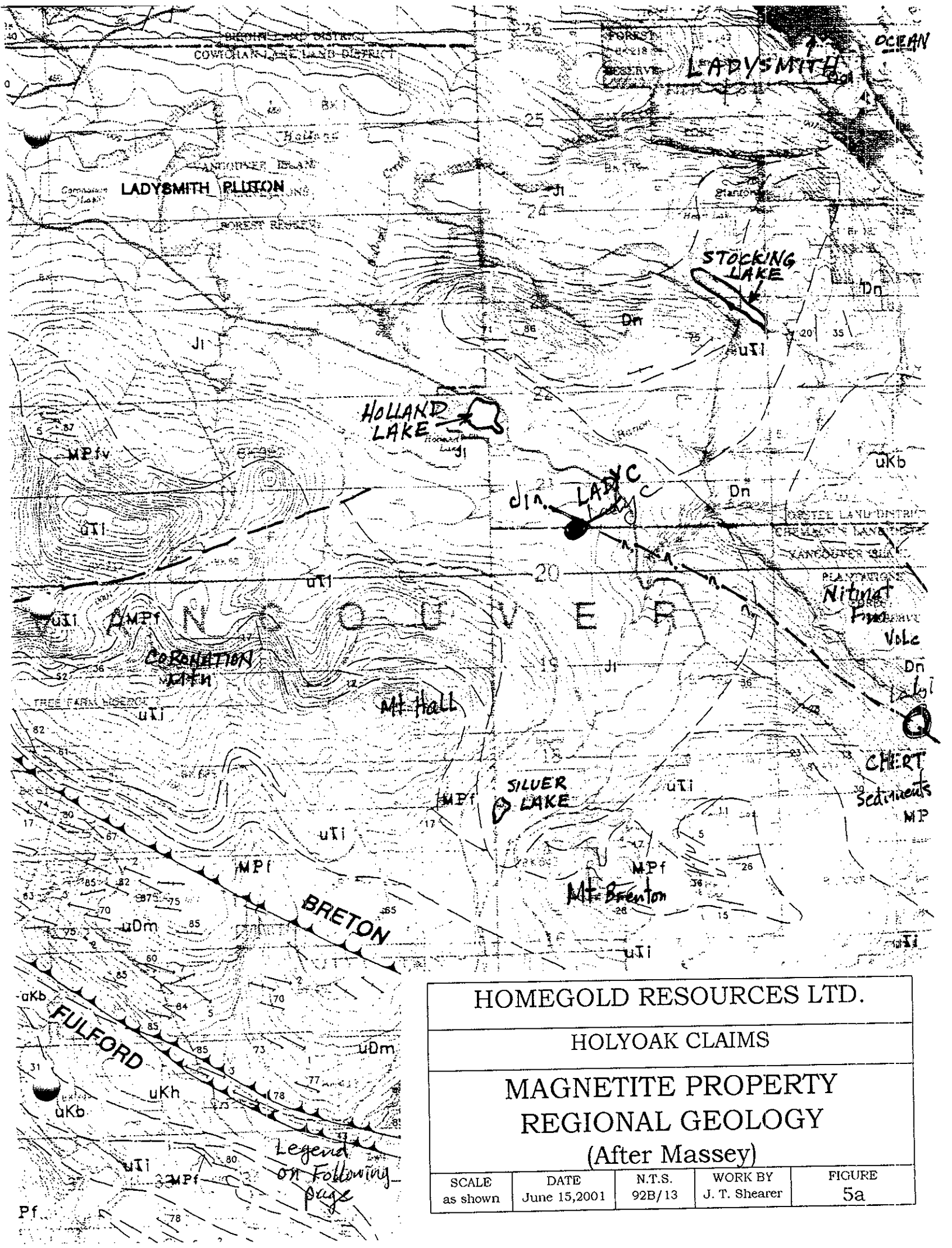
## **Lady A**

The Lady A area was examined in 1956 by W. R. Bacon and J. T. Fyles (MMAR, 1956).

The Lady A locality is 1½ miles due west of the top of Coronation Mountain on either side of Chipman Creek, a southward-flowing tributary of Chemainus River. The showings are at an elevation of about 2,000 feet above sea level, near the bottom of the logged-off valley of Chipman Creek. The deposit on the west side of Chipman Creek is called the A deposit and that on the east side of the creek, about one quarter of a mile southeast of the A deposit is called the C (West) deposit.

In 1953 the Lady A deposits and others of similar type were brought to the attention of Canadian Collieries (Dunsmuir) Limited by M. E. Broan, former manager at Iron Hill. As a result, Ladysmith Development Ltd., a wholly owned subsidiary of Canadian Collieries (Dunsmuir) Limited, was formed to explore the Lady A deposits, and did so by diamond drilling during the summer of 1953. Mr. Broan was in charge of this work.

The Lady A deposits are lenses of taconite in cherty sediments of the Sicker group (see B.C. Dept. of Mines, Bull. 37, pp. 13-15). Locally the sediments strike northwestward and dip northeastward at about 50 - 60 degrees. The deposits consist of bands of exceedingly fine-grained magnetite and minor amounts of specularite and hematite in grey chert and red jasper. Jasper is more common in the C (West) deposit than in the A.



HOMEGOLD RESOURCES LTD.

HOLYOAK CLAIMS

MAGNETITE PROPERTY  
 REGIONAL GEOLOGY  
 (After Massey)

|                   |                       |                  |                          |              |
|-------------------|-----------------------|------------------|--------------------------|--------------|
| SCALE<br>as shown | DATE<br>June 15, 2001 | N.T.S.<br>92B/13 | WORK BY<br>J. T. Shearer | FIGURE<br>5a |
|-------------------|-----------------------|------------------|--------------------------|--------------|

Legend  
 on following  
 page

Pf

**uKb** BENSON FORMATION: boulder and pebble conglomerate, sandstone and minor siltstone

**UPPER TRIASSIC**  
VANCOUVER GROUP

**uTk** KARMUTSEN FORMATION: pillowed and massive basaltic flows, hyaloclastite and hyaloclastite breccia

**MISSISSIPPIAN TO LOWER PERMIAN**  
BUTTE LAKE GROUP  
UPPER PENNSYLVANIAN TO LOWER PERMIAN

**PPm** MOUNT MARK FORMATION: massive crinoidal limestone, bedded limestone, marble, chert, cherty argillite and siltstone

MISSISSIPPIAN TO PENNSYLVANIAN

**MPf** FOURTH LAKE FORMATION:  
Ribbor chert, cherty tuff, graphitic argillite, intercalated thinly bedded sandstone siltstone and argillite, epiclastic sandstone, conglomerate, argillite and crinoidal limestone

**MPfv** Massive and pillowed basalt with intercalated cherty sediment






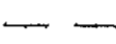
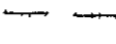


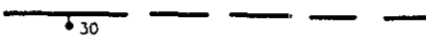



**MIDDLE(?) TO UPPER DEVONIAN**  
SICKER GROUP

**uDm** MCLAUGHLIN RIDGE FORMATION: thickly bedded tuffite and lithic tuffite, feldspar-crystal tuff, heterolithic lapilli tuff and breccia, quartz-feldspar crystal tuff (porphyry in part), rhyolite, dacite, laminated tuff, jasper and chert

**Dn** NITINAT FORMATION: pyroxene-feldspar phyric agglomerate, breccia and lapilli tuff, massive and pillowed flows, massive tuffite and lithic tuffite, laminated tuff, and chert

**Dd** DUCK LAKE FORMATION: pillowed and massive basaltic flows, monolithic basalt breccias and pillow breccias

**SYMBOLS**

- Geological contact (defined, approximate, assumed, transitional)..... 
- Limit of drift covered area..... 
- Bedrock outcrops within drift covered area..... 
- Bedding (horizontal, inclined, overturned)..... 
- Bedding estimated from pillows (inclined)..... 
- Schistosity and cleavage (inclined, vertical)..... 
- Secondary schistosity (inclined, vertical)..... 
- Lineation (plunge indicated)..... 
- Axis of minor folds (plunge indicated)..... 
- Fault; downthrown side and dip indicated (defined, approximate, assumed)..... 
- Reverse and thrust faults with dip indicated; teeth indicate upthrust side (defined, approximate, assumed)..... 
- Anticline (with plunge indicated)..... 
- Syncline (with plunge indicated)..... 

**LEGEND FOR FIGURE 5a**



The A deposit is exposed near the bottom of the valley of Chipman Creek between the Hydro lines in an area of limited outcrop. It strikes northwest, dips about 50 degrees northeast, and outcrops over strike length of 350 feet and a maximum width of 60 feet. Twelve short holes totalling 1,278 feet were diamond drilled to test the deposit. Most of the holes were vertical and drilled along two rows running parallel to the strike of the jasper horizon. One row of holes was drilled on the hangingwall side of the outcrop, and a second row 100 feet northeast of the first. A few other holes were drilled at random.

Although the drilling did not completely delimit the deposit, it showed that it has an average thickness of less than 30 feet and the company estimated it to contain 360,000 tons with an average grade of 25% iron.

The C (West) deposit outcrops at the base of bluffs on the north side of a fan of slide material, which fills the bottom of a creek tributary to Chipman Creek. Like the A, the C deposit strikes northwest and dips 60 degrees northeast. The taconite is exposed for a strike length of 175 feet and has an apparent thickness of about 50 feet, but the hangingwall is poorly defined and the footwall is covered with slide material. Two horizontal holes were diamond drilled from the lower side of the outcrop to crosscut the deposit. The first of these holes was drilled beneath the northwest exposure of the taconite and the entire 117 feet of the hole was in taconite. The second horizontal hole, 125 feet southeast of the first, was 158 feet long and was also entirely in taconite. The true thickness of the northeastward-dipping taconite band is not calculable from these holes, which were collared above the footwall and apparently did not reach the hangingwall, but a thickness at the elevation of the holes of as much as 159 feet is indicated. A third hole, 198 feet long, was drilled from the first set-up in a northwesterly direction downwards at 45° and a fourth hole, 197 feet long, was drilled from the second set-up in a northwesterly direction downwards at 60°. Both these holes, drilled down the dip of the band, were entirely in taconite.

In the two horizontal holes the average grades were 16.4 and 9.5 per cent iron. In the two inclined holes the corresponding average grades were 20.2 and 20.5 per cent iron. The relatively high grades obtained in the inclined holes may emphasize a band of higher than average.

The C (West) deposit is probably larger than the A, but more drilling is required before accurate tonnage and grade estimates can be made.

## 7.0 PROPERTY GEOLOGY and MAGNETITE POTENTIAL

### 7.1 Geology

The geology of the Holyoak Claims is dominated by volcanic and sedimentary rocks of the Sicker Group. Several rock units have been defined and a summary from youngest to oldest is as follows (after Holland, 1986):

#### a) Island Intrusions

These Jurassic Quartz monzonites and quartz diorites occur in the northwest portion of the property near the Lady C showing. These intrusives form a large stock that represents more than one phase as evidenced by quartz diorite dykes cutting the quartz monzonite. Small dykes have been found cutting the upper sedimentary package, north of Mt. Brenton by Holland (1986).

The quartz diorite is coarse grained with inequigranular crystals up to 8mm in size. Composition is 30% quartz, 50% feldspar and 20% biotite books. Xenoliths, up to 10 cm in size, of a fine-grained dioritic intrusive, are found throughout. No alteration or sulphides were noted. Fracturing is generally weak.

The quartz monzonite is coarse-grained, with equigranular crystals up to 6mm in size. Composition is 30% quartz, 60% feldspar and 10% biotite +/- hornblende. Some of the feldspar phenocrysts have a pinkish tinge to them. Fracturing is weak, alteration is absent and no sulphides are present.

#### b) Diabase

This probably Triassic aged intrusive is found within the entire Sicker section on the property. It is present as both dykes and sills that are often very thick up to 400 metres.

The diabase is a dark green to blackish coloured mafic-rich intrusion that is composed of mainly plagioclase and pyroxenes. The dominant texture is porphyritic, with the plagioclase crystals forming a distinct radial or 'flower' pattern. The large sill, located around the Brenton Lakes, is very coarse-grained with plagioclase phenocrysts up to 1.5 cms. The smaller sills and dykes, found lower in the stratigraphic section, are fine-grained with plagioclase phenocrysts up to 3-4mm. The porphyritic texture is often very hard to detect in the finer grained diabase, and is often only detected on the weathered surface where the plagioclase weathers to a white colour.

The following rock units are rocks belonging to the Paleozoic Sicker Group volcanics and sediments Holland (1986).

#### c) Buttle Lake Limestone

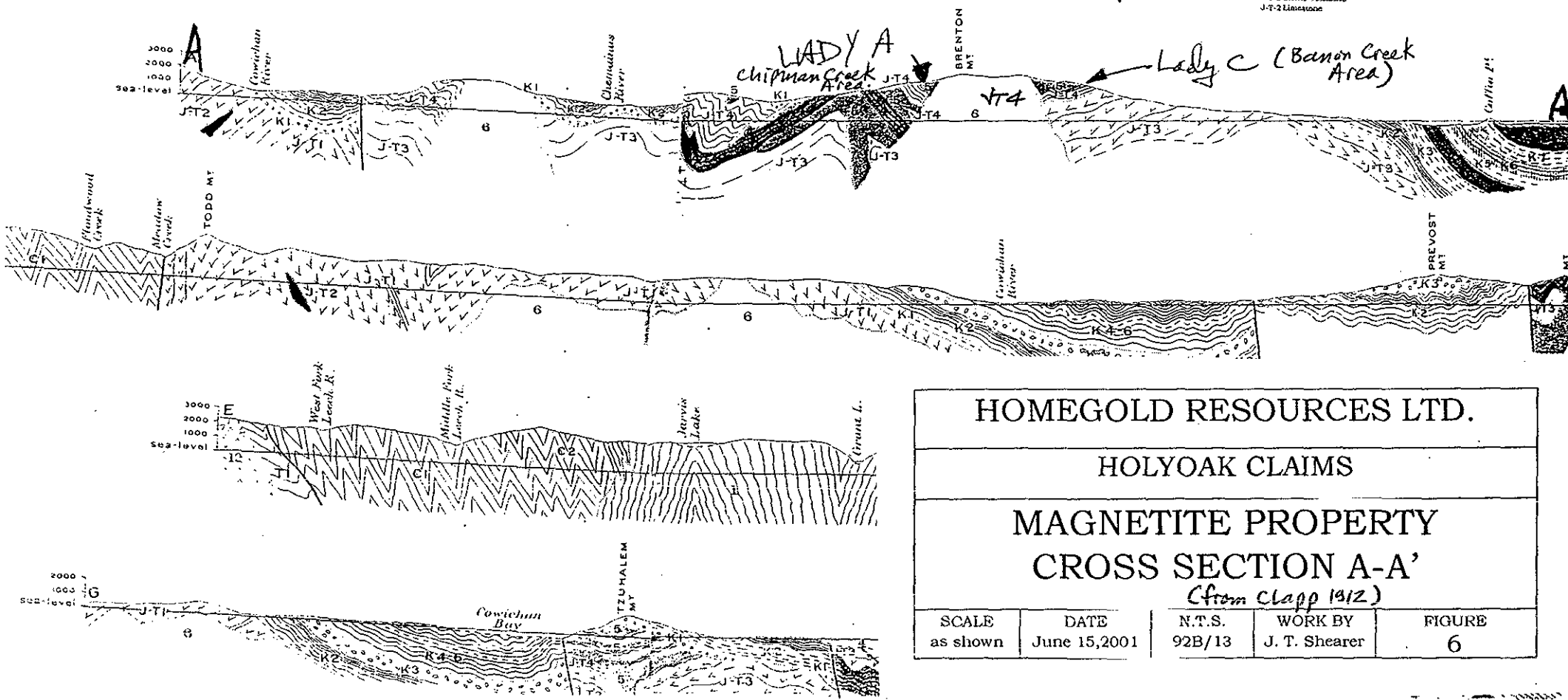
*This unit is characterized by crinoidal limestone and calcareous sediments.* These beds are often interbedded with black argillite and siltstones. The limestone is crinoidal with chert nodules in a dirty, white to cream coloured, granular matrix. Minor slump structures are present.

**Canada**  
**Department of Mines**

HON. MAJURRELL, MINISTER; R.G. McCONNELL, DEPUTY MINISTER.

**GEOLOGICAL SURVEY**  
WILLIAM McINNES, DIRECTING GEOLOGIST

- LEGEND**
- Upper Cretaceous
- Nasainio Group    K3 Estacosa Fm: Sandstone  
                          K2 Haslain Fm: Shale  
                          K1 Benson Fm: Conglomerate
- Jurassic
- Coast Intrusives    □ Diorite, Quartz monzonite, granodiorite  
                          □ Sills: Gabbro  
                          □ Sill Unit: quarts-feldspar porphyry
- Paleozoic
- Sicker Group        J-T-4 Sicker Sediments  
                          J-T-3 Sicker Volcanics  
                          J-T-2 Limestone



|                                |                       |                  |                          |             |
|--------------------------------|-----------------------|------------------|--------------------------|-------------|
| <b>HOMEGOLD RESOURCES LTD.</b> |                       |                  |                          |             |
| <b>HOLYOAK CLAIMS</b>          |                       |                  |                          |             |
| <b>MAGNETITE PROPERTY</b>      |                       |                  |                          |             |
| <b>CROSS SECTION A-A'</b>      |                       |                  |                          |             |
| <i>(from Clapp 1912)</i>       |                       |                  |                          |             |
| SCALE<br>as shown              | DATE<br>June 15, 2001 | N.T.S.<br>92B/13 | WORK BY<br>J. T. Shearer | FIGURE<br>6 |

d) Sedimentary Unit

The sedimentary unit is comprised of thin to thickly bedded, grey to black siltstone, black to dark grey argillite/mudstones, green to white sandstones and minor green cherts.

The sandstones are mostly poorly sorted greywackes or tuffaceous greywackes with minor beds of white arkosic sandstone. The arkosic sandstones are medium-grained, equigranular and composed of silica and feldspars, often with rounded quartz phenos. This rock appears to be derived from a volcanic source of felsic composition. The green chert beds are generally less than 2 cm thick and appear to increase downsection.

The argillite/mudstone beds are irregularly banded, with layers of light grey, sericite-rich argillite and dark grey sericite-poor argillite. The dark grey bands are coarser grained than the lighter bands and often contain silt-sized grains. The light grey layers are dominated by sericite flakes in parallel orientation, ranging from parallel to 27° to the bedding, Holland (1986).

Sulphide mineralization is generally less than 1% disseminated pyrite with localized zones of up to 10% disseminated pyrite and fracture coated pyrrhotite. FeO staining is very common in the finer grained sediments and is intense around the higher sulphide zones.

e) Cherty-Argillite Unit

This is a unit that consists of siliceous argillites, unaltered to weakly silicified argillites, bedded chert and recrystallized cherts. The altered rock has a black, glassy appearance with minor white, bleached beds. Up to 1% disseminated pyrite is noted, often accompanied by weak to moderate FeO staining.

f) Chert-Cherty Tuff Unit

This unit is subdivided into two groups: an upper, thickly bedded chert with minor greywacke beds and a lower, sharp-banded cherty tuff unit. The upper unit is grey to pale green colour banded, usually thickly bedded, with pale green siltstones and greywacke beds and appears to grade upward into the sedimentary unit. Sulphides are rare, with sections containing up to 1% disseminated pyrite.

The lower unit is a very thin section (100m thick) that is characterized by a sharp-banded "ribbon" texture. The beds or bands are 1-4 cm thick and range from white to pale and dark green. The pale green beds are very fine-grained and the white and dark green beds fine to medium grained with minor conglomerates present. Minor slump structures and cross bedding are present.

The white bands often have minute (4mm) quartz eyes and thin sections detected minor angular siliceous ghost fragments present in the siliceous matrix. The dark green beds are often tuffaceous with angular fragments of dacitic composition in a dacitic matrix.

g) Slump Breccias

The slump breccias occur within the lower cherty tuff horizon and can occur as thick beds with block sized fragments or a thinner, multi-horizon pebble sized slumps. The slumps are comprised of poly lithic, round to angular fragments in a siliceous often clastic matrix. The fragments range from 0.5 cm to 1.5 metres in size, with the larger fragments being the more angular. The dominant fragment is pale green chert with lesser red chert and intermediate volcanics. These slumps are present throughout the chert unit indicating multi-stage slumping.

h) Exhalative Horizon – Magnetite – FeO Unit (Jasper Unit)

This unit is mapped at the contact of the cherty tuffs and the intermediate volcanics below. It appears to pinch and swell, with noted thicknesses up to 10 metres.

The Jasper is a siliceous rock that is dominated by hematite or magnetite or both. The magnetite-rich rock is a dark steel grey colour and the hematite-rich rock is often blood red. In places, the hematite-rich zones have fragmental texture.

i) Andesite Flows

The andesite flows are characterized by calcite amygdules, dark green to purple colours and medium to fine grained. Crackle brecciation is often very strong with epidote-magnetite – hematite-sericite-silica +/- sulphide infill. The unit often exhibits strong calcite and/or quartz veining.

## 7.2 Previous Diamond Drilling

In March 1986, a contract to perform the diamond drilling by Utah Mining was awarded to Tonto Drilling Ltd. of Burnaby B.C. The work was completed in two phases: May 1, 1986 through June 6, 1986 and October 23, 1986 through November 25, 1986 on the Lady D area.

A total of eight (8) holes were completed totalling 3,180.5 metres. All drill core was of NQ size.

Drillholes JC-86-1 through 5 were holes designed to understand stratigraphy and test a zone where it was believed a volcanic dome existed. The target horizon was a jasper-magnetite bed that is believed to be an exhalative iron formation. The drillholes penetrated this horizon and continued into the footwall to obtain a geochemical signature.

Although no economic sulphides were intersected by the Utah program, a great deal of valuable information was obtained:

- a) The stratigraphic succession noted from surface mapping was confirmed at depth. Little to no structural features have deformed the stratigraphy.
- b) A volcanic dome does not exist in the area of drillholes JC-86-1 through 4.
- c) The jasper hanging wall cherty tuffs have a source to the southeast, while the jasper footwall intermediate flows have a source to the northwest.

- d) The presence of Cu/Au veining in the jasper hanging wall of drillholes JC-86-2 and JC-86-5.
- e) A lithochemical signature of the footwall rocks that indicates an Na<sub>2</sub>O depletion and K<sub>2</sub>O enrichment towards drillhole JC-86-5.
- f) Coarser fragment sizes within the hanging wall cherty tuffs of JC-86-5.

After the completion of JC-86-5, a drilling break occurred to assimilate the data. A re-examination of outcrops southeast of JC-86-5 resulted in the discovery of an old adit.

The adit is presently inaccessible, however, the dump pile contained samples of massive magnetite and samples of magnetite breccias that contained up to 20% sulphides. Weak Cu values (500 ppm) and Au values (30-740 ppb) were obtained from the area, Holland (1986).

Drillholes JC-86-6 through JC-86-8 were drilled to test this sulphide zone at depth and further examine the strong Na<sub>2</sub>O depletion and K<sub>2</sub>O enrichment noted in JC-86-5. In hole JC-86-6, the Jasper-magnetite breccia was intersected at 231 metres. Up to 20% pyrite present (as in adit dump). No anomalous base or precious metal values were obtained. Moderate quartz veining associated with pyrite was noted in the footwall andesite flows.

In hole JC-86-7 encountered up to 4% pyrite present in the jasper horizon. The footwall zone has a higher than normal K<sub>2</sub>O result and a normal Na<sub>2</sub>O value. The geochemical trend from JC-86-5 does not appear to continue to JC-86-7.

In hole JC-86-8, massive magnetite was intersected at 407 to 415 (8 metres of core thickness) metres with up to 2.5% pyrite present along fractures.

### **7.3 Magnetite Potential**

Current geological mapping and prospecting in 2000 and 2001, Figure 7 & 8, in pocket, suggest that the jasper-magnetite zone is mainly a stratabound horizon, which appears to have been skarnified in the Lady C (East) area. The Lady C (East) showing consists of about 3 metres of steeply dipping massive magnetite layers alternating with red jasper layers. Some of the magnetite layers contain up to 10% yellow-brown garnet and rounded red jasper fragments (Figure 7, in pocket).

The geological potential for defining magnetite reserves near to surface appears to be large given a significant thickness at several points and a possible strike length of up to 6 km.

#### 7.4 Geological Mapping and Prospecting in 2000 & 2001

Mapping of outcrops and prospecting traverses are plotted on Figures 7 & 8, in pocket. Outcrops are common on the southwestern part of the claims due to the steep cliffs along the access roads.

The lowest stratigraphic unit was noted along the Banon FSR on the boundary between Holyoak 7 & 8. The rocks in this area are Nitinat Formation, highly amygdaloidal dark green basalt. Most of the amygdules are now filled with coarsely crystalline calcite and minor chlorite, which gives a distinctive "pock marked" appearance to weathered exposures. To the north in the northeast portion of Holyoak 11, there are outcrops of dark green volcanic agglomerate with rounded fragments up to 10cm in diameter.

Stratigraphically above the Nitinat Formation are the cliff forming exposures of grey massive to laminated chert. This is the unit referred to by Massey (1992) as the Fourth Lake Formation. Holland (1984, 1985 and 1986) has subdivided the lower cherty units, however, the available geological mapping shows an interfingering of units, which suggests that the mapping should be tightened up by:

- 1) define more consistent units
- 2) map at a more detailed scale
- 3) correlate the available geophysics (especially magnetometer) to known map units.

The western most access road (to the 1986 diamond drilling) now connects to recent logging off the Chemainus River Mainline at a point 6.1 km from the gate. At lower elevations (Figure 8) there is abundant float (with small outcrops) of "flower" porphyry, a glomeroporphyritic rock correlating with Clapp's Unit 4. At higher elevations on Holyoak 1 and 2 mineral claims are abundant exposures of pyritic black tuffaceous slate, rusty weathering volcanic sandstone-tuff and black laminated argillite (Figure 8).

Several angular float blocks of blood red, very hematitic siliceous jasper containing veinlets of magnetite were noted on central Holyoak 2 claim. The magnetite veinlets appear to be cross cut by later white quartz veinlets.

The 2000-2001 mapping program has highlighted the need to establish a baseline and short cross lines along the area of the transition between the volcanic Nitinat Formation and the cherty sediments of the Fourth Lake Formation.

## **8.0 ENVIRONMENTAL CONSIDERATIONS**

### **8.1 Existing Conditions**

The project, because of its proximity to Banon Creek and the Holland lake reservoir for the Ladysmith Water supply required careful planning to minimize impacts on the aquatic environment.

The area is within the Arrowsmith Timber Supply Area and has been extensively logged in the distant past. The area is within the Chemainus and Cowichan Land Districts. The largest nearby logging centre is located at Chemainus. The logging tenure is held by TimberWest as private forest land. Recently a management plan No. 4 was circulated for comment. Other land uses include hunting, native food, sports and commercial fishing. There is an active fish hatchery and salmon enhancement facility on the east side of the mouth of the Chemainus River.

The several possible quarry sites are located within the Coastal Douglas Fir-Hemlock biogeoclimatic zone. The area receives on the order of 150+ cm of precipitation per year. Elevations range from 100 to 900 metres ASL. The on-site upland vegetation is mixed Cedar, Fir and Hemlock forest, which is somewhat scrubby due to the presence of rock outcrops. No evidence of wildlife licks or trails has been observed although bears and deer have been seen on the property during exploration work. Several relatively small drainages convey runoff east from the area. Some of these appear to dry periodically. The ground slopes away to Banon Creek on the east, Chemainus River on the south, Chipman Creek on the west and the Brush and Holland Creek on the north.

The broader area of the Banon Creek-Holland Lake watershed has been altered from its natural state through activities related to forestry, agriculture and urbanization. Due to the significant pressure of population growth between Ladysmith-Chemainus-Duncan, any developments are likely to be scrutinized carefully and should be undertaken with due care and planning to assure minimal environmental impacts.

### **8.2 Environmental Impacts and Planned Mitigation**

The rock (magnetite-jasper) to be quarried is relatively pure and chemically inert. The main area will be quarried leaving either level ground or a quarry, which extends down from the surface in a narrow slot. The total area to be affected by each small quarry, stockpile and loading facility will be about 2 to 4 hectares.

The overburden consists of a thin layer of topsoil, which can be set aside and used as filter for quarry runoff until reclamation. The magnetite-jasper, with the exception of a few minor fault areas, is fairly pure and first pass magnetite separation will be employed to upgrade the product, which is shipped from the quarry site. Thus, very little waste material could be expected. This material can be used to form a base for the stockpile or returned to the pit.

Most of the stockpile may be located above the 700m elevation at the Lady C site. Drainage from the quarry and from the stockpile will be directed into a major settling pond. Some filtration through overburden material or settling in a reservoir used for dust control is possible.

The silica content is mainly in the form of jasper horizons and thus is not expected to be crystalline in nature. The Workers' Compensation Board requires that workers who may

be exposed to more than 50% crystalline silica dust above the regulated limits must wear suitable respiratory protection. Subject to the air-borne dust sampling, in most instances properly fit tested on-half face respirators with High Efficiency Particulate Arrestor (HEPA) cartridges and disposable coveralls will be acceptable. Workers will be trained in the proper use of the respirators if required as well as the nature of the hazard to comply with Federal WHMIS Regulations. The Claim owners are committed to putting in place suitable controls to minimize the effects of dust generation in an outdoor setting, if necessary.

Quarrying, crushing, stockpiling and loading of the crushed rock are all physical activities. Water spray will be used to control dust if necessary, in which case, some or all of the quarry drainage will be contained to provide a water source. All further processing will be off site.

Reasonable efforts to minimize the visual impact of the project, particularly from the east along the Chemainus River Road, will be made. A screen of vegetation will be preserved wherever possible.

As a result of the small scale of the project and the relatively benign nature of the environmental impacts, the anticipated environmental concerns from this project are relatively minor.

### **8.3 Fisheries Concerns**

The Banon Creek-Holland Creek supports anadromous stocks of sockeye, pink, chum, coho, chinook and steelhead as well as stocks of cutthroat and rainbow trout, Dolly Varden, kokanee, whitefish and other non-sports fish. They contribute to commercial and native fisheries.

The mean annual flow for this system is 30 cubic metres per second. Holland and Banon Creeks support a community watershed for water supplies to Ladysmith and Chemainus.

One significant issue is the occurrences of slides in the area. These slides have significantly increased turbidity in the water courses and by covering spawning and rearing areas with an impervious layer prevent food production, damage spawning areas and may smother already spawned salmon eggs and alevins and curtail sub-gravel flows.

Careful management of site drainage, removal of vegetation and overburden to prevent downslope impacts, particularly the introduction of silt-laden water to any of the three watercourses will be undertaken. Because the site is located at the top of a hill site, drainage concerns are limited to the precipitation falling on the site only.

As mentioned above, there are very significant fisheries resources in the vicinity. Due, however, to the location of the site on a hilltop and the nature of the material to be quarried, there should not be any impacts provided the site drainage is managed to prevent siltation problems. No treatment of site runoff is planned other than settling ponds and filtration required to address this issue.

The actual quarry will cover an area of 2 to 4 hectares and the vegetation and overburden will be removed from this area sequentially over the life of the quarry. Reclamation will be conducted on disused areas of the quarry using overburden, which has been stockpiled, or from areas which are to be opened. Replanting will be done using native plants, again, from the site areas where possible.

Existing roads and infrastructure are available for this project; thus, physical impacts are limited to the area of the quarry.

#### **8.4 Reclamation**

At the end of the lifespan of this quarry, it is expected that an excavation extending below 700m elevation will remain. Two possible options for reclamation of the area are outlined below.

The most practical option is that the level surfaces, once covered in overburden and seeded could form the basis for a forestry use.

In the event that the quarry is shut down before it extends to the 700m level, it would be graded and sloped with the overburden material remaining on site and reseeded. The stockpile base will be graded back down to the former level in order to re-establish forest habitat.

## 9.0 FUTURE PLANS for 2001

Based on experience gained during the geological mapping and prospecting work in 2000, plus limited hand trenching and assay sampling.

- 1) Limited trenching at Lady C (East) along the road to be reopened. This will require some minor stripping and moving of overburden.
- 2) Short drill program to outline the extent of the Lady C (East) showing.
- 3) Close spaced ground magnetometer survey to follow the magnetite horizon.
- 4) Establish a baseline and short cross lines along the transition from Nitinat Formation volcanics and Fourth Lake Formation cherty sediments.
- 5) Complete detail geological mapping along this new grid to define the surface extent of the exhalative iron oxide-jasper unit.
- 6) Correlate detail mapping with available geophysics (especially ground magnetometer).

## 10.0 PRELIMINARY MARKET ANALYSIS for HEAVY AGGREGATE MAGNETITE and OTHER USES

The higher grade material (Lady C East) in which the raw S.G. is greater than 4.56 is suitable for use in manufacture of "heavy aggregates" as well as heavy media magnetite for coal washing, sandblasting abrasives, high density filter media and radiation shielding aggregates.

Local suppliers of the specialty products suggest that a major contract may be in the near future in an expansion of the TRIUMPH Research Facility (atomic accelerator) at the University of British Columbia. The heavy aggregate in such an application will need to meet very strict specifications for radiation shielding.

A major natural gas pipeline (\$180 million) is proposed by Williams Gas Pipeline Company and BC Hydro from Sumas, Washington to Duncan, BC near the Holyoak claims. Construction is projected to start in the spring of 2002 subject to a full environmental review. Heavy aggregate pipeline weights are routinely produced by Weights Inc. of Tucson, Arizona (refer to figure 7). Although the weighting mechanism of the Sumas-Duncan project has not been determined there are a variety of solutions used to provide the anchors for the pipe laying process. Weight Inc. has several lines from bolt-on river pipeline weights, set-on swamp pipeline weights to concrete pipeline form coatings. The project manager for the Sumas-Duncan pipeline project is Gordon Keir (phone 623-3862), project website is [www.georgiastrait.twc.com](http://www.georgiastrait.twc.com).

Specifications from a major producer in the eastern United States (Pea Ridge, Missouri) is as follows:

|                         |              |
|-------------------------|--------------|
| - Chemistry -           |              |
| Fe Total                | 50-60%       |
| Fe (Magnetite)          | 40-46%       |
| SiO <sub>2</sub>        | 8-12%        |
| P                       | 0.7-0.9%     |
| S                       | 0.04-0.9%    |
| H <sub>2</sub> O        | 2-4%         |
| (% by weight basis)     |              |
| - Physical Properties - |              |
| Specific Gravity        | 4.3 - 4.6    |
| Screen Size             |              |
| Coarse                  | 4 mesh to 1" |
| Fines                   | - 4 mesh     |
| - Rodded Bulk Density - |              |
| Coarse                  | 165 lbs.     |
| Fines                   | 192 lbs.     |

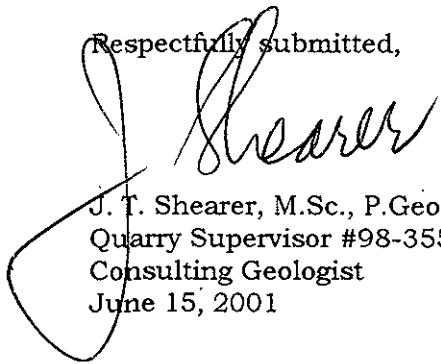
There may be applications for heavy concrete foundations in areas of high hydrostatic ground pressure in areas like Richmond, B.C.

## 11.0 CONCLUSIONS and RECOMMENDATIONS

The extensive exhalative magnetite-jasper horizons on the Holyoak 1-15 Claims may potentially fill the high value specialty market of sand blast media and Heavy Aggregates.

The raw rock density of the Lady C (East) deposit is determined to be 4.56. Possible markets could be heavy aggregate for high-density concrete, heavy media for coal washing, sandblasting abrasives, high-density filter media and radiation shielding aggregates. Two major construction projects that may start in early 2002 are the expansion of the sub-atomic research TRIUMPH facility at the University of British Columbia and the Sumas-Duncan Natural Gas Pipeline (for pipe anchors) by BC Hydro and Williams Pipeline Company. There may also be increasing application to special designed heavy concrete foundations in areas of high hydrostatic ground pressure in areas like Richmond, B.C.

Respectfully submitted,



J. T. Shearer, M.Sc., P.Geo.  
Quarry Supervisor #98-3550  
Consulting Geologist  
June 15, 2001

## 11.1 COST ESTIMATE for FUTURE WORK

### Phase I

|   |                 |  |
|---|-----------------|--|
| 1) Road Rehab along 700m<br>tree removal, ditching, waterbars | \$ 8,000.00     |  |
| 1a) Supervision and mapping                                   | 4,000.00        |  |
| 2) Trenching  | 4,000.00        |  |
| 2a) PRA Test Work   | <u>2,470.00</u> |  |
| Phase I Total   | \$ 18,470.00    |  |

### Phase II

|  |                 |           |
|--|-----------------|-----------|
| 3) Ground Magnetometer and associated linecutting  | 16,000.00       |           |
| 4) Data Assembly from existing Assessment Reports,<br>Drill records and inform from BHP-Utah Files   | 4,000.00        |           |
| 5) Excavation & sorting of 200 tonnes for extended<br>Ready-mix trial, Trucking to Hub City Paving to<br>produce 100 cubic metres of concrete. | 3,000.00        | excavator |
|  | 2,000.00        | sorting   |
|  | <u>2,000.00</u> | trucking  |
| Phase II Total   | \$ 27,000.00    |           |

### Phase III

|   |                 |  |
|---|-----------------|--|
| 6) Road Building for Drill access from both<br>north and south of Banon Creek | 20,000.00       |  |
| 7) Diamond Drilling, 2,500 ft. @ \$26/ft.                                     | 65,000.00       |  |
| 8) Drill Supervision, Core Logging, Core Splitting                            | 18,000.00       |  |
| 9) Core handling facility   | 4,000.00        |  |
| 10) Report Preparation  | <u>2,500.00</u> |  |
| Phase III Total   | \$109,500.00    |  |

Grand Total Phases I, II & III      \$154,970.00

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# **APPENDIX I**

## **STATEMENT of QUALIFICATIONS**

**J. T. Shearer, M.Sc., P.Geo.**

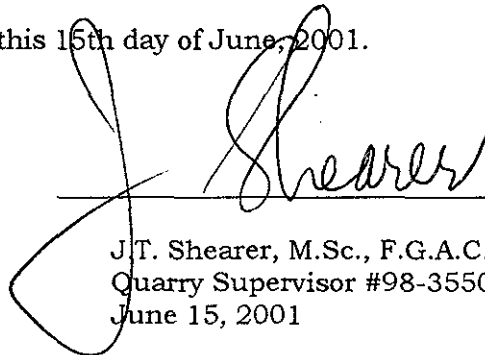
**June 15, 2001**

**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).
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 "Prospecting and Geological Report on the Chemainus Iron Deposit, Holyoak 1 - 15 Claims, Victoria and Nanaimo Mining Divisions" dated June 15, 2001.
6. I have visited the property between June 15, 2000 and June 6, 2001. 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 Chemainus 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 interest in the Holyoak Claims and own Homegold Resources Ltd.

Dated at Port Coquitlam, British Columbia, this 15th day of June, 2001.

  
\_\_\_\_\_  
J.T. Shearer, M.Sc., F.G.A.C., P.Geo.  
Quarry Supervisor #98-3550  
June 15, 2001

# **APPENDIX II**

## **STATEMENT of COSTS**

**June 15, 2001**

**Appendix II  
STATEMENT OF COSTS**

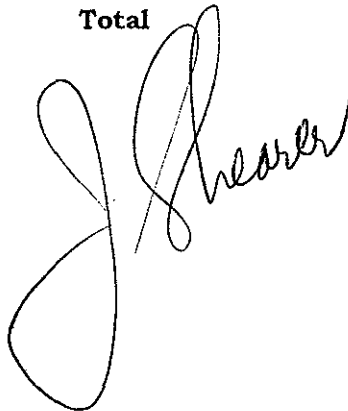
**Wages and Benefits**

|   |                                   |
|---|-----------------------------------|
| J.T. Shearer, M.Sc., P.Geo., Quarry Supervisor 98-3550<br>10 days @ \$350/day<br>June 15, 16, 24 & 25, 2000, Nov. 15, 16, & 30, 2000,<br>May 8-10, 2001 | \$ 3,500.00                       |
| M. McClaren, B.Sc., Geologist<br>10 days @ \$350/day<br>June 15, 16, 24 & 25, 2000, Nov. 15, 16, & 30, 2000,<br>May 8-10, 2001                          | <u>\$ 3,500.00</u><br>\$ 7,000.00 |
| GST   | <u>490.00</u>                     |
| Subtotal Wages  | <u>\$ 7,490.00</u>                |

**Transportation**

|  |                            |
|--|----------------------------|
| Truck Rental, Fully equipped 4x4<br>10 days @ 53.50        | 535.00                     |
| Ferry  | 148.50                     |
| Hotel, Meals & Camp Rental                                 | 1,837.00                   |
| Analytical   | 48.75                      |
| Thinsection Preparation (Vancouver Petrographics)          | 107.25                     |
| Magnetic and size analysis (Process Research & Associates) | 2445.30                    |
| Base Maps  | 118.00                     |
| Chainsaw Rental<br>3 days @ 53.42                          | 160.25                     |
| Report Preparation   | 700.00                     |
| Word Processing and Reproduction                           | <u>380.25</u>              |
| <b>Total</b>   | <b><u>\$ 13,995.00</u></b> |

45% Prospecting = 6,297.75  
55% Geology = 7,697.25



**APPENDIX III**

**ASSAY CERTIFICATES**

**June 15, 2001**



# ALS Chemex

Aurora Laboratory Services Ltd.  
 Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2G1  
 PHONE: 604-604-0221 FAX: 604-604-0218

To: HOMEGOLD RESOURCES LTD.  
 UNIT #5, 2330 TYNER ST.  
 PORT COQUITLAM, BC  
 V3C 2Z1

Page Number : 1-A  
 Total Pages : 1  
 Certificate Date: 23-OCT-00  
 Invoice No. : 10031017  
 P.O. Number :  
 Account : MWE

Project :  
 Comments: ATTN: JOE SHEARER

|                         |          |
|-------------------------|----------|
| CERTIFICATE OF ANALYSIS | A0031017 |
|-------------------------|----------|

| SAMPLE | PREP CODE |     | Al2O3 | CaO   | Cr2O3  | Fe2O3 | K2O   | MgO   | MnO   | Na2O  | P2O5  | SiO2  | TiO2  | LOI   | TOTAL | Ag    | Al   | As  | B    | Ba  | Be  |
|--------|-----------|-----|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-----|------|-----|-----|
|        |           |     | % XRF | % XRF | % XRF  | % XRF | % XRF | % XRF | % XRF | % XRF | % XRF | % XRF | % XRF | % XRF | % XRF | % XRF | %    | ppm | %    | ppm | ppm |
| LADY C | 208       | 226 | 1.49  | 1.51  | < 0.01 | 87.54 | 0.28  | 0.35  | 0.29  | 0.07  | 0.27  | 6.35  | 0.06  | -1.83 | 98.38 | 0.6   | 0.20 | < 2 | < 10 | 10  | 1.5 |

CERTIFICATION: \_\_\_\_\_



# ALS Chemex

Aurora Laboratory Services Ltd.  
 Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2G1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: HOMEGOLD RESOURCES LTD.

UNIT #5, 2330 TYNER ST.  
 POHT COQUITLAM, BC  
 V3C 2Z1

Project:  
 Comments: ATTN: JOE SHEAHER

Page Number : 1-B  
 Total Pages : 1  
 Certificate Date: 23-OCT-00  
 Invoice No. : 10031017  
 P.O. Number :  
 Account : MWE

**CERTIFICATE OF ANALYSIS      A0031017**

| SAMPLE | PREP CODE | Bi<br>ppm | Ca<br>% | Cd<br>ppm | Co<br>ppm | Cr<br>ppm | Cu<br>ppm | Fe<br>% | Ga<br>ppm | Hg<br>ppm | K<br>% | La<br>ppm | Mn<br>% | Mg<br>ppm | Mo<br>ppm | Na<br>% | Ni<br>ppm | P<br>ppm | Pb<br>ppm | S<br>% |
|--------|-----------|-----------|---------|-----------|-----------|-----------|-----------|---------|-----------|-----------|--------|-----------|---------|-----------|-----------|---------|-----------|----------|-----------|--------|
| LADY C | 208 226   | 24        | 1.14    | 15.5      | 38        | 13        | < 1       | 15.00   | 10        | < 1       | 0.04   | < 10      | 0.10    | 1410      | < 1       | < 0.01  | 135       | 900      | 8         | 0.01   |

CERTIFICATION: \_\_\_\_\_

10/23/99 11:51AM CHEMEX LABS ALPHA-FHXZ

PAGE 003



# ALS Chemex

Aurora Laboratory Services Ltd.  
 Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2G1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: HEMEGOLD RESOURCES LTD.

UNIT #5, 2330 TYNER ST.  
 PORT COQUITLAM, BC  
 V3C 2Z1

Project :  
 Comments: ATTN: JOE SHEARER

Page Number : 1-G  
 Total Pages : 1  
 Certificate Date: 23-OCT-00  
 Invoice No. : I0031017  
 P.O. Number :  
 Account : MWE

## CERTIFICATE OF ANALYSIS A0031017

| SAMPLE | PREP |     | Sb  | Sc  | Sr  | Ti     | Tl   | U    | V   | W    | Zn  | S %    |
|--------|------|-----|-----|-----|-----|--------|------|------|-----|------|-----|--------|
|        | CODE |     | ppm | ppm | ppm | µg/g   | ppm  | ppm  | ppm | ppm  | ppm | Total  |
| LADY C | 208  | 226 | 2   | 2   | 24  | < 0.01 | < 10 | < 10 | 107 | < 10 | 550 | < 0.01 |

CERTIFICATION: \_\_\_\_\_

# **APPENDIX IV**

## **SIZE ANALYSIS**

**June 15, 2001**

# SIZE ANALYSIS REPORT

Client: Murray McClaren  
 Test: S1  
 Sample: Head

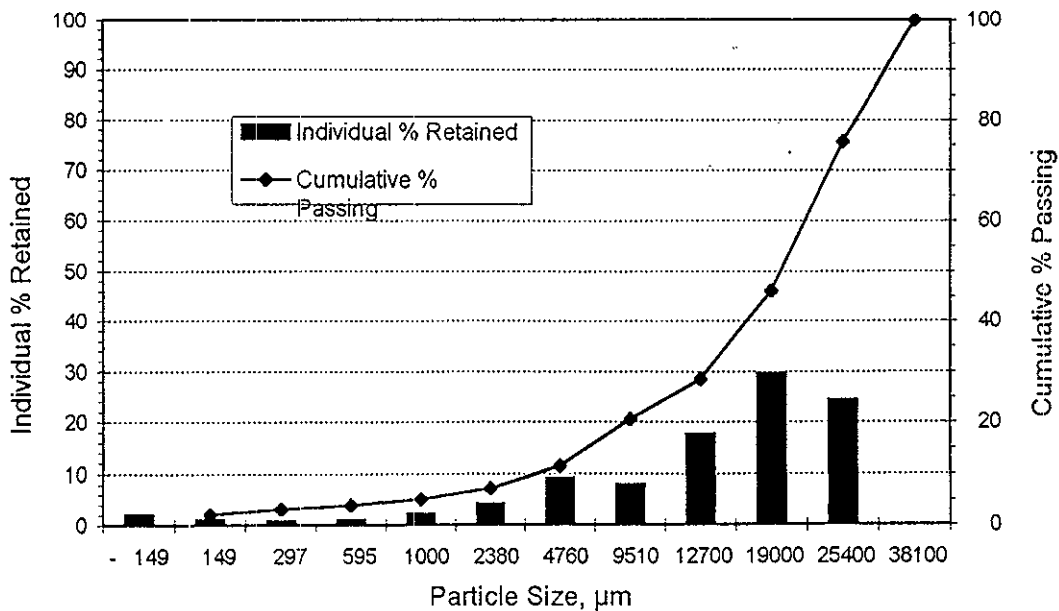
Date: 17-Oct-00  
 Project: 0006610

Grind: Sample was stage crushed to pass 1-1/2" screen opening

| Sieve Size    |             | Individual | Cumulative |
|---------------|-------------|------------|------------|
| Tyler Mesh    | Micrometers | % Retained | % Passing  |
| 1-1/2"        | 38100       | 0.0        | 100.0      |
| 1"            | 25400       | 24.4       | 75.6       |
| 3/4"          | 19000       | 29.6       | 46.1       |
| 1/2"          | 12700       | 17.6       | 28.5       |
| 3/8"          | 9510        | 7.9        | 20.6       |
| 4             | 4760        | 9.1        | 11.4       |
| 8             | 2380        | 4.2        | 7.2        |
| 16            | 1000        | 2.2        | 5.0        |
| 28            | 595         | 1.1        | 4.0        |
| 48            | 297         | 0.8        | 3.2        |
| 100           | 149         | 1.1        | 2.1        |
| Undersize     | - 149       | 2.1        | -          |
| <b>TOTAL:</b> |             | 100.0      |            |

80 % Passing Size ( $\mu\text{m}$ ) = 27552

### Size Distribution



# SIZE ANALYSIS REPORT

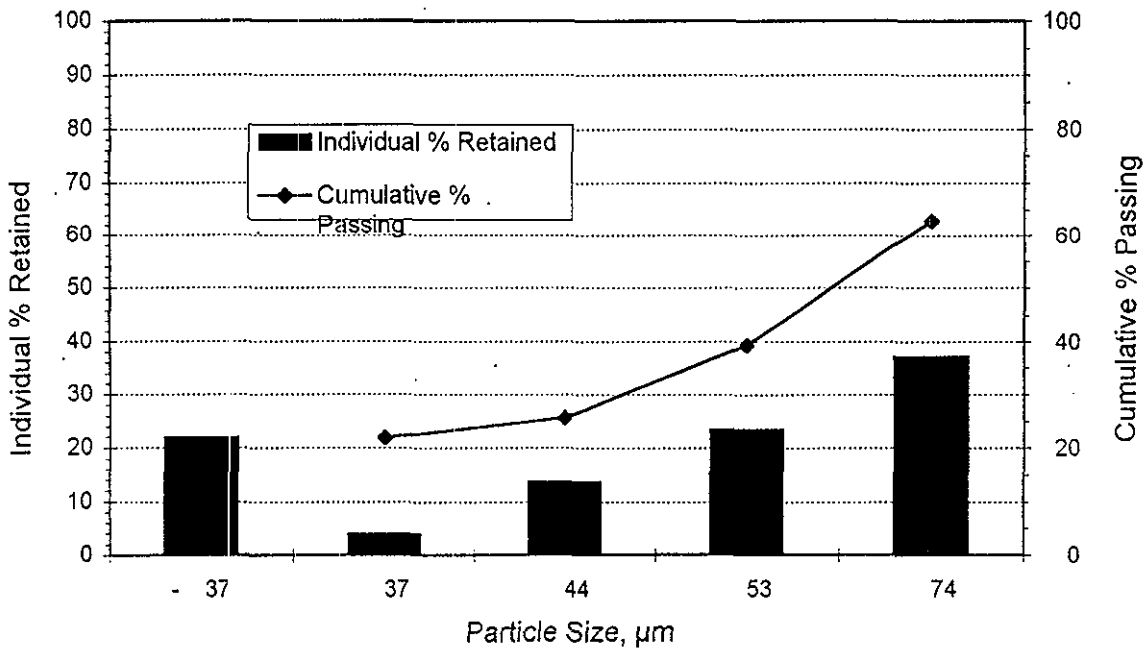
**Client:** Murray McClaren  
**Test:** S2  
**Sample:** -100 mesh Fraction  
**Grind:** N/A

**Date:** 08-Nov-00  
**Project:** 0006610

| Sieve Size    |             | Individual | Cumulative |
|---------------|-------------|------------|------------|
| Tyler Mesh    | Micrometers | % Retained | % Passing  |
| 200           | 74          | 37.1       | 62.9       |
| 270           | 53          | 23.5       | 39.4       |
| 325           | 44          | 13.7       | 25.8       |
| 400           | 37          | 3.9        | 21.9       |
| Undersize     | - 37        | 21.9       | -          |
| <b>TOTAL:</b> |             | 100.0      |            |

80 % Passing Size ( $\mu\text{m}$ ) = 447

### Size Distribution



# SIZE ANALYSIS REPORT

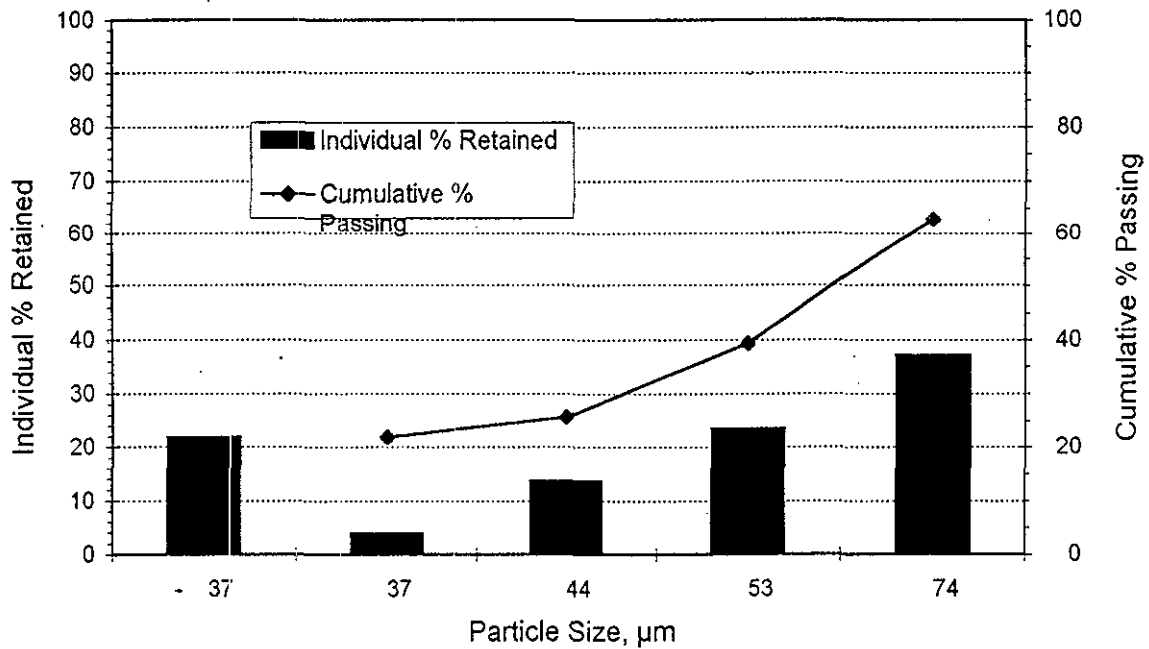
**Client:** Murray McClaren  
**Test:** S2  
**Sample:** -100 mesh Fraction  
**Grind:** N/A

**Date:** 08-Nov-00  
**Project:** 0006610

| Sieve Size    |             | Individual | Cumulative |
|---------------|-------------|------------|------------|
| Tyler Mesh    | Micrometers | % Retained | % Passing  |
| 200           | 74          | 37.1       | 62.9       |
| 270           | 53          | 23.5       | 39.4       |
| 325           | 44          | 13.7       | 25.8       |
| 400           | 37          | 3.9        | 21.9       |
| Undersize     | - 37        | 21.9       | -          |
| <b>TOTAL:</b> |             | 100.0      |            |

80 % Passing Size ( $\mu\text{m}$ ) = 447

### Size Distribution



# Specific Gravity and Magnetic Content Report

Client: Murray MacClearen  
Project: 0006610

Date: 30-Oct-00

| Aperture     | Weight        | Weight Retained | S.G. | Mag  |
|--------------|---------------|-----------------|------|------|
| mm           | g             | %               | g/mL | %    |
| 25.4         | 4,381         | 24.4            | 4.64 | 81.8 |
| 19.0         | 5,317         | 29.6            | 4.55 | 80.6 |
| 12.7         | 3,165         | 17.6            | 4.42 | 81.5 |
| 9.51         | 1,425         | 7.9             | 4.45 | 82.6 |
| 4.76         | 1,645         | 9.1             | 4.43 | 82.0 |
| 2.38         | 760           | 4.2             | 4.47 | 80.4 |
| 1.00         | 390           | 2.2             | 4.46 | 81.8 |
| 0.60         | 192           | 1.1             | 4.46 | 78.8 |
| 0.30         | 142           | 0.8             | 4.44 | 74.0 |
| 0.15         | 199           | 1.1             | 4.45 | 75.9 |
| -0.15        | 373           | 2.1             | 4.44 | 79.8 |
| <b>Total</b> | <b>17,988</b> | <b>100.0</b>    |      |      |

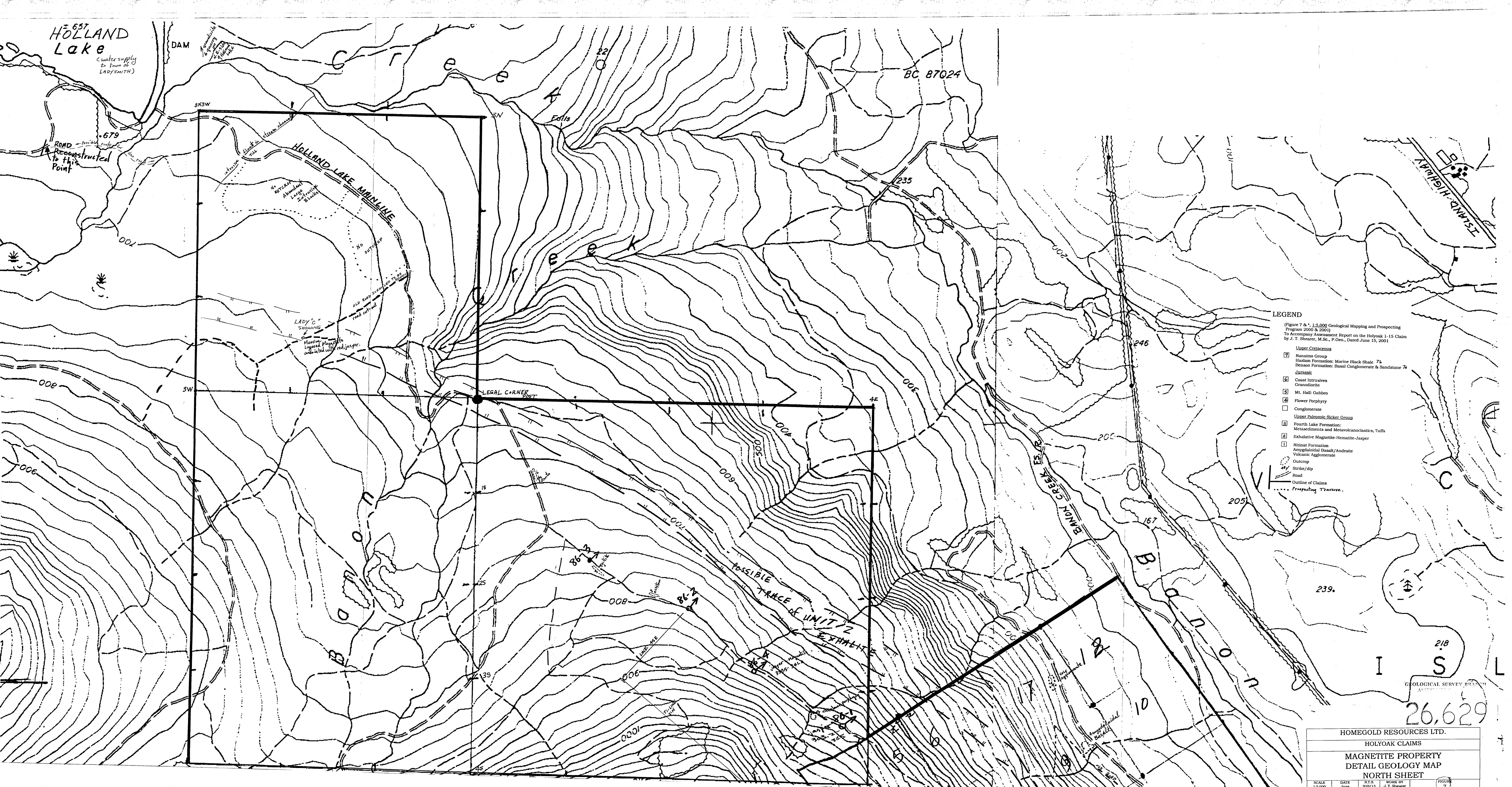
## Specific Gravity & Magnetic Content Report

Client: Murray McClaren  
Project: 0006610

Date: 08-Nov-00

| Size             | Loose Bulk Density<br>g/ml | Compact Bulk Density<br>g/ml | Average Bulk Density<br>g/ml | S.G.<br>g/mL | Mag<br>% |
|------------------|----------------------------|------------------------------|------------------------------|--------------|----------|
| Coarse Aggregate | 2.02                       | 2.24                         | 2.13                         | 4.52         | 85.6     |
| Fine Aggregate   | 2.31                       | 2.53                         | 2.42                         | 4.48         | 82.3     |
| +200             |                            |                              |                              | 4.55         | 87.1     |
| +270             |                            |                              |                              | 4.70         | 84.0     |
| +325             |                            |                              |                              | 4.26         | 79.5     |
| +400             |                            |                              |                              | 4.58         | 78.5     |
| -400             |                            |                              |                              | 4.06         | 74.5     |

Note: Coarse aggregate combines size fractions of 25.4, 19.0, 12.7, 9.51 mm.  
Fine aggregate combines size fractions of 4.76, 2.38, 1.00, 0.60, 0.30, 0.15 mm



HOLLAND Lake  
 657  
 Water supply to town of LADYSMITH

BC 87024

**LEGEND**

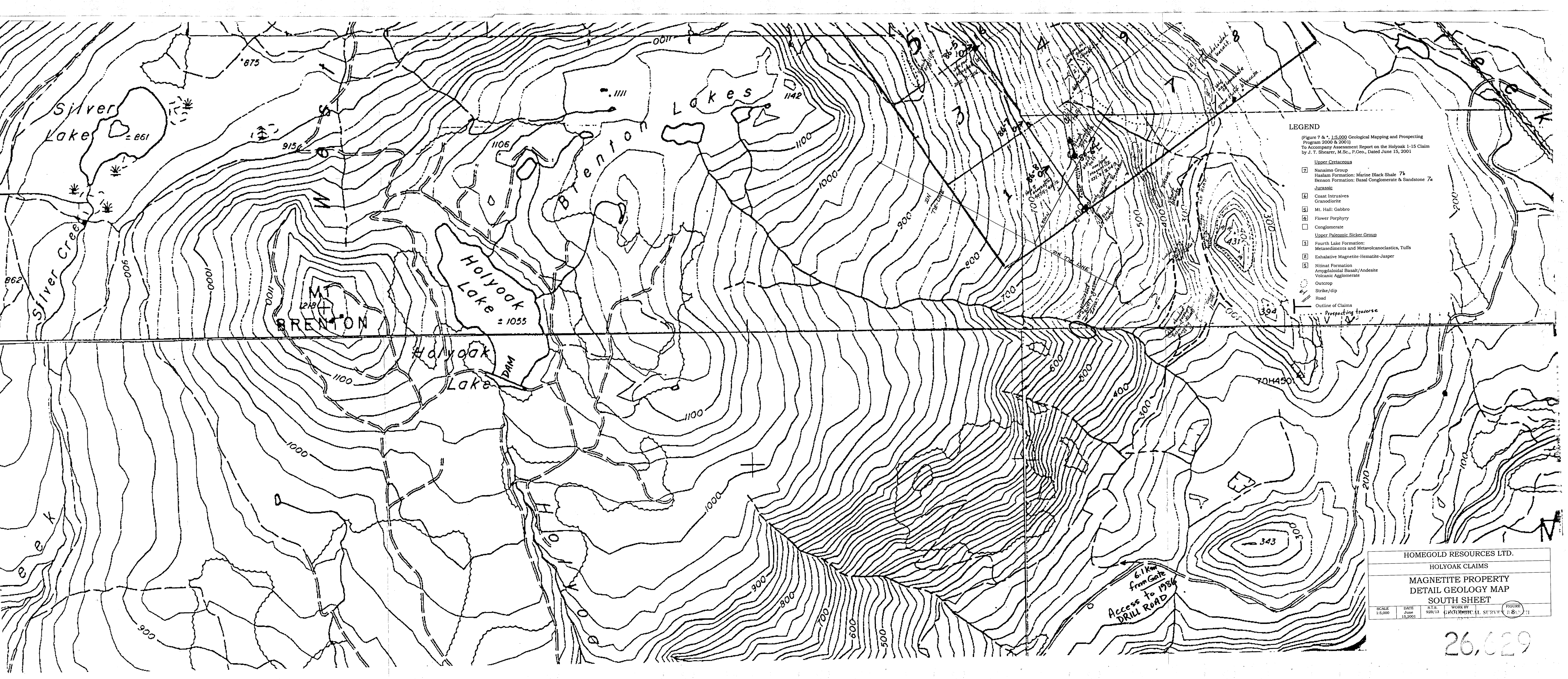
(Figure 7 & 8, 1:5,000 Geological Mapping and Prospecting Program 2000 & 2001)  
 To Accompany Assessment Report on the Holyoak 1-15 Claim by J. T. Shearer, M.Sc., P. Geo., Dated June 15, 2001

- Upper Cretaceous
  - 7 Nanaimo Group
  - Haslam Formation: Marine Black Shale 74
  - Benson Formation: Basal Conglomerate & Sandstone 74
- Jurassic
  - 6 Coast Intrusives
  - Granodiorite
  - 5 Mt. Hall Gabbro
  - 4 Flower Porphyry
  - Conglomerate
- Upper Paleozoic Slicker Group
  - 3 Fourth Lake Formation: Metasediments and Metavolcanoclastics, Tuffs
  - 2 Exhalative Magnetite-Hematite-Jasper
  - 1 Nilinat Formation: Amygdaloidal Basalt/Andesite Volcanic Agglomerate
- Other Symbols:
  - Outcrop
  - Strike/dip
  - Road
  - Outline of Claims
  - Prospecting Traverse

26,629

GEOLOGICAL SURVEY BRANCH  
 218  
 219  
 220

|                         |                       |                   |                          |
|-------------------------|-----------------------|-------------------|--------------------------|
| HOMEGOLD RESOURCES LTD. |                       |                   |                          |
| HOLYOAK CLAIMS          |                       |                   |                          |
| MAGNETITE PROPERTY      |                       |                   |                          |
| DETAIL GEOLOGY MAP      |                       |                   |                          |
| NORTH SHEET             |                       |                   |                          |
| SCALE<br>1:5,000        | DATE<br>June 15, 2001 | N.T.S.<br>9/20/13 | WORK BY<br>J. T. Shearer |
|                         |                       |                   | FIGURE<br>7              |



**LEGEND**

(Figure 7 & 8: 1:5,000 Geological Mapping and Prospecting Program 2000 & 2001)  
 To Accompany Assessment Report on the Holyoak 1-15 Claim by J. T. Shearer, M.Sc., P. Geo., Dated June 15, 2001

**Upper Cretaceous**

- 7 Nansimo Group
- Haslam Formation: Marine Black Shale 7b
- Benson Formation: Basal Conglomerate & Sandstone 7a

**Jurassic**

- 8 Coast Intrusives
- Granodiorite
- 9 Mt. Hall: Gabbro
- 4 Flower Porphyry
- 5 Conglomerate

**Upper Paleozoic Sicker Group**

- 3 Fourth Lake Formation: Metasediments and Metavolcanoclastics, Tuffs
- 2 Exhalative Magnetite-Hematite-Jasper
- 1 Nitinat Formation: Amygdaloidal Basalt/Andesite Volcanic Agglomerate

○ Outcrop  
 / Strike/dip  
 — Road  
 - - - Outline of Claims  
 - - - - - Prospecting traverses

|                          |                       |                              |             |
|--------------------------|-----------------------|------------------------------|-------------|
| HOME GOLD RESOURCES LTD. |                       |                              |             |
| HOLYOAK CLAIMS           |                       |                              |             |
| MAGNETITE PROPERTY       |                       |                              |             |
| DETAIL GEOLOGY MAP       |                       |                              |             |
| SOUTH SHEET              |                       |                              |             |
| SCALE<br>1:5,000         | DATE<br>June 15, 2001 | WORK BY<br>GEOLOGICAL SURVEY | FIGURE<br>8 |

26,029