In account with
Holberg Mines Ltd. (N.P.L.),
915-470 Granville Street,
VANCOUVER B.C.

Attention: Mr. Peter Wishart

TO: PROFESSIONAL SERVICES to date:

Compilation and writing Report, bound and in six (6) copies, entitled
"Preliminary Report on the Limestone Deposits at Holberg Inlet, Vancouver Island - March 27th. 1975",

following inspection and observations during visit to the property, and reviewing existing literature and previous reports.

TO: Numerous telephone calls with Holberg Mines Ltd. and with authorities of the B.C. Provincial Government concerning alternative plans in case of inability to obtain aerial photographs.

TO: Instructing Pacific Survey Corporation Ltd. regarding over-flying of property for the production of aerial photographs, leading to Contract letter dated February 28th. 1975 from P.S.C. Ltd. to Holberg Mines Ltd., which was accepted by Holberg Mines Ltd.

TO: Overseeing written certification that the work outlined in aforesaid letter was indeed carried out. The resultant information will be used to formulate the required topographical maps, which will be available two (2) weeks from March 27th. 1975.

OUR FEE:

3.25 days at the per diem rate of $275.00 = $893.75

H.S. Haslam, P.Eng.

HSH/mc
PRELIMINARY REPORT
ON THE LIMESTONE DEPOSITS AT
HOLBERG INLET, VANCOUVER ISLAND.

March 27th. 1975

H. S. Haslam and Associates Limited
Consulting Coal Mining Engineers
Vancouver, B.C.
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<td>1</td>
</tr>
<tr>
<td>2. Claim Location</td>
<td>2</td>
</tr>
</tbody>
</table>

There now follow seven (7) Figures of Pages numbered 13 to 23 inclusive.

H. S. HASLAM AND ASSOCIATES LIMITED
1. INTRODUCTION

1.1 Holberg Mines Ltd. (N.P.L.) hold a number of claims near the head, and south, of Holberg Inlet, which is an extension of Quatsino Sound, in the north western area of Vancouver Island. They are in the Nanaimo Mining Division as defined by the Department of Mines and Petroleum Resources of the Government of the Province of British Columbia.

1.2 These claims include various deposits of high grade limestone, which outcrop on the property, and without overburden.

1.3 This Report gives the progress of exploration of these deposits to date and outlines a two-phase plan for continuing exploration and for gaining information necessary to assess the feasibility of economic exploitation.

1.4 The claims referred to, in particular, in this Report are the FOX Claims Nos. 1 to 20 inclusive.
2. LOCATION, ACCESS and TOPOGRAPHY

2.1 The location of the claims is shown in the attached maps:

- **FIGURE 1** General location of the claims in relation to Vancouver, Victoria and Prince Rupert, British Columbia, and delineates the area shown in FIGURE 2.

2.2 **FIGURE 2** The location of the claims, on a larger scale, in relation to Quatsino Sound, Holberg Inlet, Port Hardy, Port Alice, Suquash and Coal Harbour.

2.3 The approximate centre of the claims area lies at the intersection of the meridian of Longitude 127 degrees 56' West and of the parallel of Latitude 50 degrees 27' North. It will be noted that the claims are thus approximately three (3) miles east of the village of Holberg, and that they contact the south shore of Holberg Inlet.

The property location is to be found on National Topographic Reference Area 92L/12(w). Glerup Creek flows northwards from two small lakes lying within the claims area, and in the northern section of the area, there is Native Creek. A water supply for drilling purposes is thus fairly close at hand. Pettagem Creek lies to the south of the area. **FIGURE 3**.

2.4 The property may be reached by 32 miles of logging road from Port Hardy, and logging roads have been constructed.
on a liberal scale across the area.

Port Hardy has an airport which is served by Pacific Western Airlines, with connections to Vancouver. An amphibian aircraft charter is available at Port Hardy for air travel to Holberg.

2.5 The proximity of the shoreline of Holberg Inlet will be found advantageous in that deep-draught ships can be accommodated almost adjacent to the plant for limestone processing.

Almost all of the claims area has been logged.

2.6 Elevations on the property range from sea level on the northern boundary to over 1,300 feet on the eastern boundary. There are two other high points, of over 1,100 feet. Mount Hansen, 1,993 feet high, lies to the west of the area, and overlooks the village of Holberg. There are two main ridges of hills whose axes are parallel to Holberg Inlet. The northernmost ridge has steep sides, whilst the southerly ridge has more gentle slopes. Glarup Creek lies between these two ridges.
3. TITLE TO THE CLAIMS

3.1 A total of twenty (20) full claims are concerned with this project.

Names, record numbers and due dates for the renewal of each claim are as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Record Numbers</th>
<th>No. of Claims</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fox</td>
<td>1-10 34762 - 34781</td>
<td>20</td>
<td>Mar. 28/1975</td>
</tr>
</tbody>
</table>

Figure 4 shows the relative positions of these claims.

3.2 The site of the limestone deposit on these claims lies within an existing timber forest licence held by Rayonier Canada Limited. Because of this, the limestone cannot be staked under the Land Act or the Mineral Act.

3.3 The Fox claims have a Free-Use Mining Permit from the British Columbia Department of Lands, Forests and Water Resources, valid until August 5th, 1975, permitting the testing of the property through drilling. This allows timber to be cut in order to clear up to 20 drill sites, which must be located within 66 feet of existing logging roads crossing the claims area.
3.4 By letter dated August 16th, 1974, written by the British Columbia Forest Service to the Company's solicitors, it was confirmed that it is not a Departmental policy to accept an application for limestone over mineral claims from other than the owner of those claims.

3.5 It was further confirmed in that letter of August 16th, 1974 that an application for limestone from another party would constitute a conflict of interest since the Department takes the position that limestone and minerals may be inseparable.

3.6 Because of the foregoing, the Company and its solicitors believe that the Company is protected should it expend funds in the development of the property.
4. GEOLOGY

4.1 This is described in a publication of the Geological Survey of Canada, Paper 74-8, entitled "Geology and Mineral Deposits of Alert Bay - Cape Scott Map Area, Vancouver Island B.C.", by Muller J.E., Northcote K.E., and Carlisle, D., 1974.

The map accompanying this Memoir indicates that the claims cover an area of the Quatsino Formation, which consists of limestones. To the south and east there are areas designated as Parson Bay Formation, which consists of sedimentary rocks such as siltstones, limestones, greywacke, conglomerates and breccias, whilst to the north of the Quatsino deposits, and bordering Holberg Inlet, there are basaltic lavas, pillow lavas, breccias and aquagene tuffs of the Karmutsen Formation.

4.2 The older of these formations is the Karmutsen, which underlies the Quatsino and the younger Parson Bay Formations apparently conformably. All three formations are attributed to the Upper Triassic System. The Parson Bay formation was formerly known as the Bonanza Formation. Major faulting defines the boundaries of these formations on the east and west sides of the Quatsino.

4.3 The limestone of the Quatsino Formation is described in general as being "coarse bioclastic, light grey and massive", and about 950 feet thick, plus or minus 100 feet. Thin sections of the limestone show grains of recrystallised calcite 0.01 mm to 0.02mm in size. The generally low dolomite and silicate...
content is shown by analysis of samples taken by McCammon (1969) in the Alert Bay-Cape Scott Map Area, which show an average of only 1.15% MgO and 1.17% insolubles. These figures compare favourably with those from analyses made of samples of limestone from the claims area, given later in this Report.

4.4 The geology of the Coal Harbour-Port Hardy area has also been partially described in the British Columbia Mines Minister's Report for 1968, Page 85.

4.5 A geological report concerning 300 claims of Holberg Mines Ltd., lying in the general area of Holberg Inlet including the 60 claims herein referred to, was written by David R. Morgan, P.Eng. in March 1970, following his investigations in the field. He refers to the limestones of the local area, as it is the host rock for the mineralisation with which he was concerned at that time. He describes it on Page 16 of his report, and we quote, in part:

"Limestone: Apparently great thicknesses of limestone occur in the central part of the area mapped. These are the three main types:

(a) Grey Limestone: Grey weathering, pale grey to buff grey and aphanitic on the fresh surface, usually with a conchoidal splintery fracture. This limestone is almost lithographic in its aphanitic purity. Great thicknesses occur in the southwestern part of the carbonate belt.

(b) Dolomitie Limestone: This rock is typically buff weathering, pale buff grey and aphanitic on the fresh surface. It too has splintery conchoidal fracture.

(c) Dark Grey Limestone: Dark grey to black on the weathered and fresh surface due to argillaceous or carbonaceous inclusions. Occasional fossiliferous, it appears in the northern part of the carbonate belt .......... and is probably close to the bottom of the Quatsino."
5. QUALITY AND QUANTITY OF LIMESTONE

5.1 Quality
An analysis of grab samples of the limestone was made on April 9th, 1973 by General Testing Laboratories of Vancouver, and this is reproduced in FIGURE 5. It will be noted that the Magnesia (MgO) is 1.19% and that the calcium carbonate, by calculation is 97.32%. The iron content is 0.14%. The limestone represented in this sample is thus of a high grade.

5.2 Quantity
Until definitive information from detailed geological mapping and from strategically-located drill holes covering the three limestone deposits which occur within the claims area is available, a reasonably accurate estimate of the tonnage of saleable limestone cannot be derived. The proposed expenditure to achieve this end includes a sum of money to perform this work. However, we are satisfied that in general a large reserve of limestone exists in the westernmost deposit alone, on which some drilling has been done. These drill holes are named 74A-1, 74A-2, 74A-3, 74A-4, 74A-5, and were drilled during February and March 1974. (See Figure 3).
The logs of these holes are shown in FIGURE 6, and sections of strata passed through are depicted in FIGURE 7. These expose the presence of whitish, grey and dark grey-brown limestones and limey dolomites, some of which has been marbelised in places. Volcanic intrusions have also been found amongst the sedimentary beds.
Up to the present time, no holes have been drilled in the two limestone deposits to the south east and information on these is confined to surface outcrop observations.

5.3 Volume of Limestone in Place

Figure 3 shows the approximate area of the outcropping of the westernmost deposit of limestone. This represents some 470 acres. Assume a thickness of workable limestone of 70 ft., and that the limestone weighs 200 lbs. per cubic foot, we have some 140 million tons of product in place. The thickness of 70 feet is taken from the drillhole records shown in Figure 6.

It will be appreciated that since the estimated quantity in this one deposit is more than sufficient for even large scale exploitation, we have paid no serious attention to the other deposits of limestone within the claims area.
6. CERTIFICATION

6.1 This Report has been compiled and written by

HUBERT S. HASLAM

Consulting Mining Engineer and President of
H.S. Haslam and Associates Limited, following
a visit to the claims area of Holberg Mines Ltd.
(N.P.L), consultations with the President of
this Company and examination of Company and
other reports upon the area in question and
surrounding areas.

6.2 I hereby certify that:

(a) I hold the degree of Bachelor of Engineering in
   Mining, First Class, also the degree of Master
   of Engineering in the University of Sheffield.

(b) I hold, through examination, Fellowships in
    The Institution of Mining Engineers
    The Institution of Mechanical Engineers
    The Institution of Civil Engineers

(c) I am a Registered Member of the Association of
    Professional Engineers of British Columbia, also
    of the Consulting Engineers Division of that
    body, in addition to similar registration in the
    Provinces of Alberta, Ontario and Quebec.

(d) I am a Member of
    The Canadian Institute of Mining and Metallurgy
    The Engineering Institute of Canada
    The American Institute of Mining and
    Metallurgical Engineers

H. S. HASLAM AND ASSOCIATES LIMITED
6.3 I hereby certify that I am

a practising consulting Mining Engineer and
reside at 2144 Nelson Avenue, West Vancouver B.C.

6.4 I hereby certify that

I have no direct or indirect interest whatsoever
in Holberg Mines Ltd. (N.P.L.) nor in the mineral
claims mentioned in this Report, nor do I expect
to receive any interest, direct or indirect, in
the properties of Holberg Mines Ltd. (N.P.L.) or
any affiliate or any security of the company or
affiliate.

Dated at West Vancouver, B.C., this 27th day of March, 1975

H.S. Haslam, P.Eng.
President,
H.S. Haslam and Associates Ltd.
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5413 MAP #1

H. S. HASLAM AND ASSOCIATES LIMITED

GEOGRAPHICAL LOCATION OF
CLAIMS OF HOLBERG MINES LTD.,
NORTHERN VANCOUVER ISLAND, B.C.

FIGURE 1.
CERTIFICATE OF ASSAY

No: 7303-0557  DATE: April 9, 1973

Hereby certify that the following are the results of assays on: Limestone Samples

<table>
<thead>
<tr>
<th>MARKED</th>
<th>UNMARKED</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAMPLES</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>OZ/MT</th>
<th>OZ/ST</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOSS ON IGNITION</td>
<td>43.40</td>
<td></td>
</tr>
<tr>
<td>(CO₂ etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SILICA (SiO₂)</td>
<td>0.51%</td>
<td></td>
</tr>
<tr>
<td>IRON (Fe₂O₃)</td>
<td>0.14%</td>
<td></td>
</tr>
<tr>
<td>LIMINA (Al₂O₃)</td>
<td>0.20%</td>
<td></td>
</tr>
<tr>
<td>CALCIUM OXIDE (CaO)</td>
<td>54.53%</td>
<td></td>
</tr>
<tr>
<td>MENGESIA (MgO)</td>
<td>1.19%</td>
<td></td>
</tr>
<tr>
<td>SULPHUR (S)</td>
<td>0.01%</td>
<td></td>
</tr>
<tr>
<td>PHOSPHORUS (P)</td>
<td>0.011%</td>
<td></td>
</tr>
<tr>
<td>CALCIUM CARBONATE</td>
<td>97.32%</td>
<td></td>
</tr>
<tr>
<td>Calculated (CaCO₃)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

H. S. HASLAM AND ASSOCIATES LIMITED

To: HOLBERG MINES LTD.,
   #103-709 DUNSMUIR ST.,
   VANCOUVER, B.C.

Figure 5

Analytical and Consulting Chemists, Bulk Cargo Specialists, Surveyors, Inspectors, Samplers, Weighers

MEMBER American Society for Testing Materials - The American Oil Chemists' Society - Canadian Testing Association
REFEREE AND/ OR OFFICIAL CHEMISTS FOR Vancouver Merchants Exchange - National Institute Of Oiied Products - The American Oil Chemists' Society
(Official WeighMasters For Vancouver Board Of Trade - Vancouver Merchants Exchange)
DIAMOND DRILL HOLE RECORD

MINE Holberg Mines Ltd. (NPL)

HOLE No.74 A - 1       SIZE XRP

LOCATION Fox 12 South Side Lake Main Road - See Fig: 1

DIRECTION N 95° East

DEPTH 85 Feet          DIP -55°

POSITION Surface       ELEV. COLLAR 475' ASL

DATE 15th March 1974

Co-ordinates of Collar

N. E.

STARTED 16 Feb 1974

FINISHED 18 Feb 1974

<table>
<thead>
<tr>
<th>SECTION (M)</th>
<th>TO</th>
<th>RECY</th>
<th>LOG</th>
<th>ASSAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>1.7</td>
<td></td>
<td>Limestone - Whitish</td>
<td></td>
</tr>
<tr>
<td>0-61.057.5</td>
<td></td>
<td></td>
<td>Limestone - Grey to Dark Grey, veinlets of calcite, some rusty joints Ground in sections</td>
<td></td>
</tr>
<tr>
<td>0-70.0</td>
<td>8.1</td>
<td></td>
<td>Limestone - Dark Grey some alteration - intercalated with volcanics in sections</td>
<td></td>
</tr>
<tr>
<td>0-85.0</td>
<td>2.5</td>
<td></td>
<td>Basalt - Chloritic amygdules and blebs Calcite stringers and veinlets 82 - 83'; sheared 75 - 76; scattered sulphides especially in veinlets</td>
<td></td>
</tr>
<tr>
<td>85.0</td>
<td></td>
<td></td>
<td>End of Hole</td>
<td></td>
</tr>
</tbody>
</table>

FI G U R E 6

H. S. HASLAM AND ASSOCIATES LIMITED

TOTAL 79.8% 93.9%

REMARKS:

Core badly fractured in sections

ASSAYER

DRILLERS N. Bootoff Drilling

EXAMINED BY W. J. Weymark P. Eng.
**DIAMOND DRILL HOLE RECORD**

**MINE:** Holberg Mines Ltd. (NPL)  
**DATE:** 15 March 1974

**HOLE No.:** 74A - 2  
**SIZE:** XRP

**LOCATION:** North Side G1 - G2 Road see Fig: 1

**DIRECTION:** North 50° West

**DEPTH:** 60'  
**DIP:** -60°

**STARTED:** 19 Feb/74

**POSITION:** Surface  
**ELEV. COLLAR:** 470'

**FINISHED:** 20 Feb/74

<table>
<thead>
<tr>
<th>SECTION</th>
<th>LOG</th>
<th>ASSAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>M TO RECT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>6.0 5.5 Limestone - Whitish</td>
<td></td>
</tr>
</tbody>
</table>
| 60 | 60.033.0 Limestone - Greyish to darker grey in sections  
Some rusty joints - ground in sections  
cross calcite veinlets in places |       |
| 60.0 | End of Hole |       |

**FIGURE 6**

H. S. HASLAM AND ASSOCIATES LIMITED

**TOTAL:** 38.5% 64.2%

**REMARKS:** Core badly fractured in sections

**DRILLERS:** N. Dootoff Drilling

**EXAMINED BY:** W. J. Weymark P. Eng.

**ASSAYER**

**DATE**

(OVVERI)
**DIAMOND DRILL HOLE RECORD**

**MINE**: Holberg Mines Ltd  
**DATE**: 15 March 1974  
**Co-ordinates of Collar**

**LOCATION**: Fox 14 – South Side of Lake Main Road – See Fig: 1  
**DIRECTION**: North 95° East  
**DEPTH**: 115'  
**DIP**: 65°  
**POSITION**: Surface  
**SIZE**: XRP  
**STARTED**: 21 Feb/74  
**FINISHED**: 25 Feb/74

### LOG

<table>
<thead>
<tr>
<th>Section</th>
<th>Length (ft)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-29.027</td>
<td>0'</td>
<td>Limestone - Whitish - marbelized - fractured in places.</td>
</tr>
<tr>
<td>9.0-65.024</td>
<td>0'</td>
<td>Limestone - grades from light grey to dark grey thru’ to 65’</td>
</tr>
<tr>
<td>95.0-94.010</td>
<td>0'</td>
<td>Basalt - Chloritic amygdules and blebs, Limy and calcite stringers - sheared 65 - 69’</td>
</tr>
<tr>
<td>4,0115.018.5</td>
<td>0'</td>
<td>Basalt - Amygdaloidal - calcite and some quartz, some cross stringers of calcite, scattered sulphides - cp 111- 115’</td>
</tr>
<tr>
<td>115.0</td>
<td>End of Hole</td>
<td></td>
</tr>
</tbody>
</table>

**Assay** 114 – 115'

- Copper - 0.01%
- Gold - 0.005 oz
- Silver - 0.10 oz

Core Laboratories Certificate 1308 - 30 - 7031  
14 March 1974

**FIGURE 6**

H. S. HASLAM AND ASSOCIATES LIMITED

**REMARKS**:  
- Limestone sections fractured  
- Basaltic sections good core  

**DRILLERS**: N. Dootoff Drilling  
**EXAMINED BY**: K. J. Weymark P. Eng.  
**ASSAYER**:  
**DATE**: (OVER)
**DIAMOND DRILL HOLE RECORD**

**MINE:** Holberg Mines Ltd (NPL)  
**HOLE NO.:** 74A - 4  
**SIZE:** XRP  
**DATE:** 15 March 1974

**LOCATION:** 50' East of 74A - 3, South Side Lake Main Rd - See Fig: 1

**DIRECTION:** North 95° East

**DEPTH:** 150'  
**DIP:** -55°

**STARTED:** 26 Feb/74  
**FINISHED:** 2 Mar/74

**SECTION**  
<table>
<thead>
<tr>
<th>TO</th>
<th>RECY</th>
<th>LOG</th>
<th>ASSAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>2</td>
<td>Limestone - Creamy, weathered rusty</td>
<td></td>
</tr>
<tr>
<td>40.0</td>
<td>25</td>
<td>Limestone - varies from light to dark grey, veinlets of calcite, brecciated at 24': Sulphides @ 38'</td>
<td></td>
</tr>
<tr>
<td>53.0</td>
<td>12</td>
<td>Andesite - Limy, Brecciated, stringers of Scattered sulphides</td>
<td></td>
</tr>
<tr>
<td>59.0</td>
<td>5</td>
<td>Limestone - Whitish with grey streaks -</td>
<td></td>
</tr>
<tr>
<td>63.0</td>
<td>3</td>
<td>Andesite - Limy - Calcite streaks and veinlets, Brecciated some sulphides</td>
<td></td>
</tr>
<tr>
<td>76.0</td>
<td>12</td>
<td>Andesite - fine grained some calcite stringers</td>
<td></td>
</tr>
<tr>
<td>150.0</td>
<td>70</td>
<td>Limestone - varies from whitish - 76-86', to dark grey - ground - broken</td>
<td></td>
</tr>
<tr>
<td>150.0</td>
<td></td>
<td>End of Hole</td>
<td></td>
</tr>
</tbody>
</table>

**FINISH: 2 Mar/74**

**H. S. HASLAM AND ASSOCIATES LIMITED**

**DRILLERS:** N. Dootoff Drilling

**EXAMINED BY:** W. J. Haymark P. Eng.

**ASSAYER:**

**REMENNBS:**
DIAMOND DRILL HOLE RECORD

HOLE No. 74A - 5  SIZE XRP

LOCATION: 50' East of 74A - 4, South Side of Lake Main Road - See FIG - 1

DIRECTION: North 95° East

DEPTH: 80'  DIP: -35°

STARTED: 2 Mar/74  FINISHED: 4 Mar/74

CO-ORDINATES OF COLLAR

N. E.

REMARKS:
Lower section of hole fractured
Poor core recovery

H. S. HASLAM AND ASSOCIATES LIMITED
DRILLHOLE NUMBER

SCALE of FEET

Legend
Limestone
Basalt
Andesite
Tuff

HOLBERG MINES LTD
Sections of Drill Holes

FIGURE 7

Dip of Hole | -55° | -60° | -65° | -55° | -35°
Direction | N95°E | N50°W | N95°E | N95°E | N95°E

H. S. HASLAM AND ASSOCIATES LIMITED