

PROVINCE OF BRITISH COLUMBIA  
MINISTRY OF ENVIRONMENT  
WATER MANAGEMENT DIVISION

A HYDROGEOLOGIC  
INVENTORY AND RECONNAISSANCE  
OF  
KEATS ISLAND

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Water Management Division

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# A HYDROGEOLOGIC INVENTORY AND RECONNAISSANCE OF KEATS ISLAND

## INTRODUCTION

Upon receipt of a request from the Sunshine Coast Regional District the Groundwater Section of the Water Management Division undertook a groundwater inventory and reconnaissance of Keats Island.

The Sunshine Coast Regional District is investigating the feasibility of improving water supply on the Island. Part of their investigation involves groundwater and wells. However, no water well data was available in the Groundwater Section Data Base for this Island.

In early October, 1992, the author spent two days on Keats Island. During this time a well inventory was carried out, five wells were sampled for chemical analysis, and a beginning made on a hydrogeological investigation of the Island.

On completion, the Groundwater Section's Data Base was updated with the new water well record and chemistry information obtained, and four new 1 to 5,000 Water Well Location Maps, conforming to the British Columbia Geographical System (BCGS), were prepared for the Island.

This preliminary hydrogeologic report was prepared to present some of the data and to give a few comments on the findings.

## PHYSIOGRAPHY

Keats Island has a land area of approximately 600 hectares (1500 acres), primarily made up of sloping terrain rising to a central ridge with summits of around 200 metres (650 feet). It is a rugged island with rock dominated topography which is characterized by frequent bedrock outcrops or shallow overburden over bedrock. The shoreline consists of rock bluffs, separated by beaches of sand or gravel at several points on all sides of the island (Keats Island Community Plan, 1975). Figure 1 shows the location of Keats Island and illustrates the topography.

There are no lakes or major streams on the island, however, a few minor creeks with intermittent flow are present and water rights have been obtained on some of these.

(2)

The Island's forests are extensive, mostly coniferous, and are home to a considerable deer and other small animal life population. Figure 2 is a mosaic, prepared from airphoto coverage of the Island.

### BEDROCK GEOLOGY

Metamorphosed volcanic and lesser interbedded sedimentary rocks of the Bowen Island Group, along with Coast Plutonic granitic rocks at the east and west ends of the Island, comprise the bedrock of Keats Island. A comprehensive description of these rocks can be found in Roddick, J. A. (1965), "Vancouver North, Coquitlam, and Pitt Lake Map Areas, British Columbia" (G.S.C. Memoir 335). Figure 3 shows Keats Island bedrock geology with generalized strike and dip for bedding and glacial striations (from Armstrong, 1954).

### SURFICIAL GEOLOGY

The occurrence of bedrock over much of the island suggests the surficial materials are not very thick. Water well records confirm this. However, two drill logs are reported to penetrate over sixty feet of mainly till before encountering bedrock. No drill records were obtained for the interior valleys and possibly there are isolated deeper pockets of overburden in these areas.

### HYDROGEOLOGY

Four well location maps were prepared and are located in the pocket of this report (92G.033.4.3, 92G.033.4.4, 92G.043.2.1 and 92G.043.2.2 ). Table 1 is a data summary of the sixteen (16) wells located during the field work ( 6 dug and 10 drilled ). Appendix A is a detailed data report for each of these wells. Appendix B is a detailed water rights report for springs and creeks licensed on the Island and three (3) fifty percent reduced water rights maps with location data are enclosed in the pocket (92G.033.4.3, 92G.033.4.4, and 92G.043.2.1).

The predominant source of recharge to groundwater is precipitation, and its hydraulic behaviour is governed by topography, distribution of bedrock and surficial deposits, climate and vegetation. Precipitation replenishes the soil moisture and eventually reaches the water table to replenish the groundwater aquifers. On Keats Island this recharge occurs mainly during the winter months, when precipitation is high and the vegetation is dormant.

A number of dug wells have been completed in the surficial deposits of the Island. They often appear to be adequate for domestic use if precaution is taken with use during late summer. However, where large numbers of people draw on them, which occurs with the three Eastbourne community wells in the summer months, they are not adequate. It was reported that the three Eastbourne dug wells are depleted on weekends in the late summer and it takes a number of the week days for the water level to recover. The owner of dug well 92G.033.4.4.3 #9 reported the water level in his well rose 3 feet overnight after a recent September rainfall, and demonstrates how quickly precipitation recharges this aquifer.

The ability to develop screened wells in the overburden depends on finding saturated permeable materials (ie: sand and gravels). However, the occurrence of bedrock over much of the Island and the drilling to date indicates the surficial material is not very thick. The interior valleys may have some potential.

All drilled wells on the Island are completed in the bedrock and produce groundwater from fractures. The productivity depends on the size and frequency of the fracture openings encountered. The depth of these wells vary from 80 to 407 feet and yield is reported as varying from 35 to 1.0 gpm. However, a 1988 groundwater report by Piteau Associates of West Vancouver, for the Keats Camp water supply notes the 35 gpm well (mentioned above) supplied the Camp for years but in the spring of 1987 the well was incapable of meeting the water demand and rationing was necessary. They estimated the average summer water usage at 10.5 igpm and recommended another well be drilled to make up the camp requirement (Holmes, 1988).

At Eastbourne, a water shortage occurs in the summer. A cross-section A - A' (Figure 4 ) was drawn for this area. It's location is shown on well location maps 92G.033.4.3 and 92G.033.4.4. It shows bedrock wells with reported yields of 10 and 11 gpm near the east end of the section. This appears to be an area where further groundwater exploration may prove worthwhile for larger supplies. However, water quality and pumptesting should be carried out to confirm the true capacity and quality of the bedrock aquifer. Upstream of Bonner Creek, where it crosses the section line may be an area of overburden potential.

### HYDROCHEMISTRY

Groundwater on Keats Island originates from precipitation which infiltrates the soils and rocks and eventually returns to the surface at natural or man-made discharge points. From the point of recharge to the point of discharge the chemical quality of groundwater changes by increasing in total dissolved and suspended solids and by the relative proportions of these constituents.

(4)

During the two days of field work five water samples were collected for analysis in the evening using a Beckman Solu-Bridge and a field Hach kit (model AL-94). Two laboratory analyses were acquired separately.

The results are summarized as follows:

- |                         |                                      |
|-------------------------|--------------------------------------|
| 1) pH                   | varied from 6.6 to 7.92              |
| 2) Hardness             | varied from 51 to 187 ppm            |
| 3) Specific Conductance | varied from 110 to 400 micro/mhos/cm |
| 4) NaCl                 | less than 37.5 ppm                   |
| 5) Total Alkalinity     | varied from 68 to 170 ppm            |

All above parameters tested show values acceptable for drinking water. A laboratory analysis for well 92G.033.4.4.3 #1 showed acceptable water, except for manganese which tested as 0.22 mg/liter. The proposed aesthetic objective for this parameter is less than or equal to 0.05 mg/L (Guidelines for Canadian Drinking Water Quality, 1989). At values exceeding 0.05 mg/L it may stain both plumbing fixtures and clothes being washed.

The laboratory analyses are included with the detailed data report in Appendix A.

SUMMARY

- 1) Dug well owners report a significant decrease in yield during the late summer.
- 2) Individual domestic water supplies can probably be obtained from most wells drilled on Keats Island, if drilled to sufficient depth.
- 3) Small community systems may obtain a supply exceeding 10 gpm from favourably located bedrock wells.
- 4) Sites for screened wells in sand and gravel are not very favourable due to the shallow overburden. However, there may be potential in the valley bottoms where the irregular bedrock topography may have channelled glacial melt waters and left permeable materials.
- 5) All water quality parameters tested, in samples collected, were below the maximum allowable concentrations as given in the "Guidelines for Canadian Drinking Water Quality, 1989", except for well 92G.033.4.4.3 #1 which had an elevated concentration of manganese (0.22 mg/L).

REFERENCES

- Armstrong, J.E. 1954. Preliminary Map, Vancouver North, British Columbia Geological Survey of Canada, Paper 53-28.
- Health and Welfare Canada. 1989. Guidelines for Canadian Drinking Water Quality 1989, Health and Welfare Canada, Ottawa.
- Holmes, A.T. 1988. Well for Keats Camp Water Supply. Piteau Associates. West Vancouver, British Columbia. Unpublished Report.
- Keats Island Community Plan, 1975. Regional District of Sunshine Coast, By-Law No. 107, Sechelt, British Columbia.
- Roddick, J. A. 1965. Vancouver North, Coquitlam, Pitt Lake Map-Areas, British Columbia. Geological Survey of Canada, Memoir 335.

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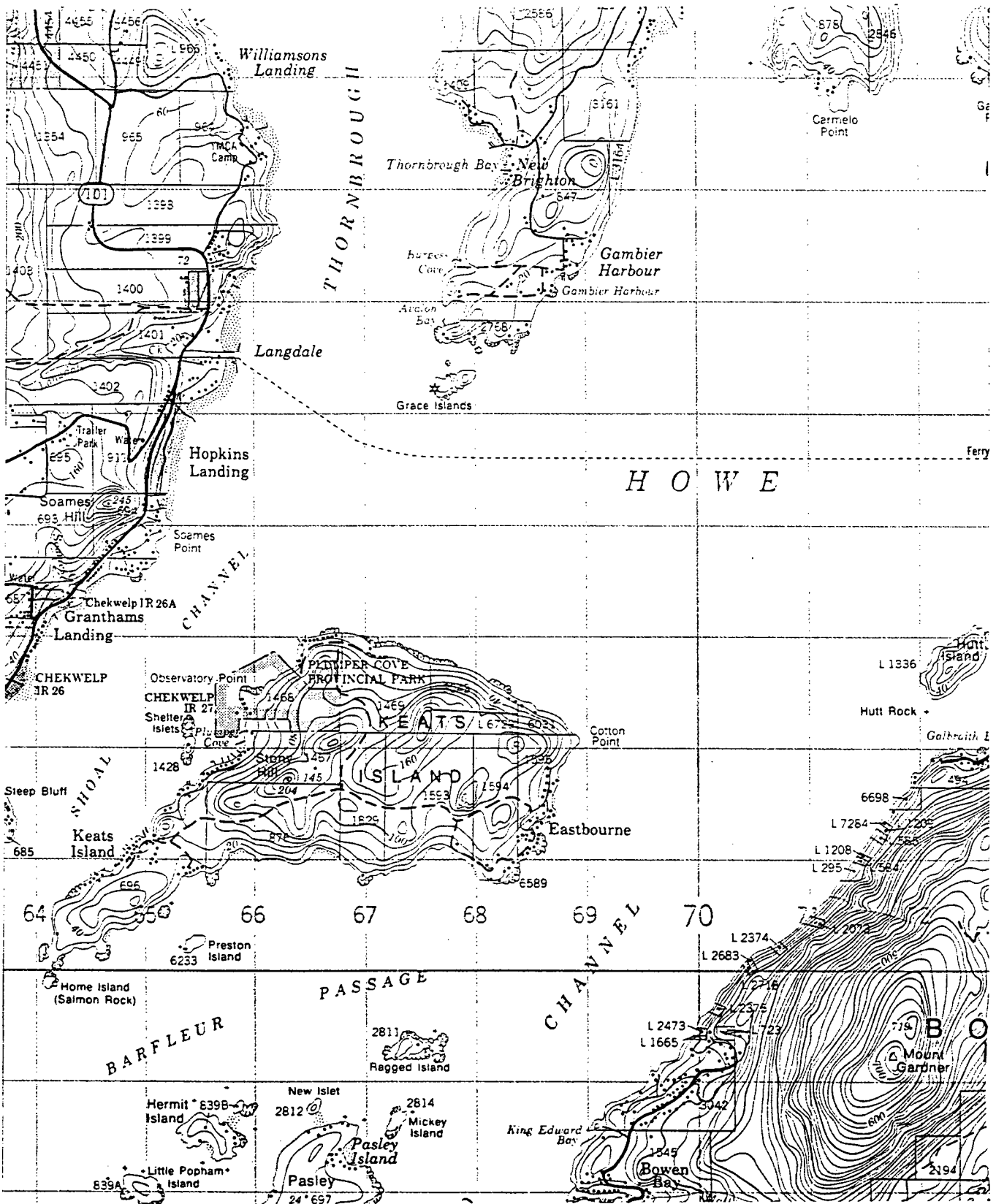
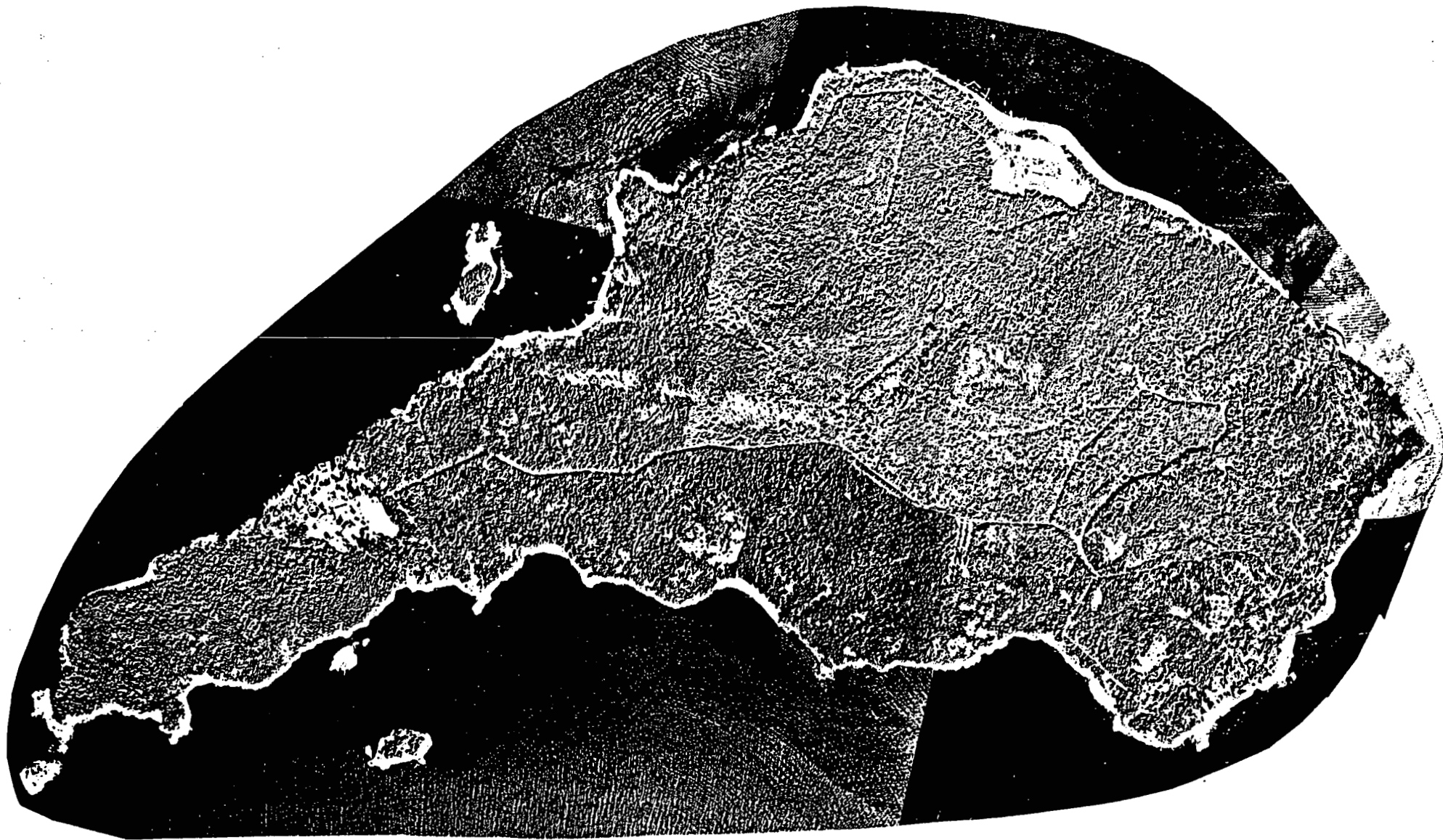
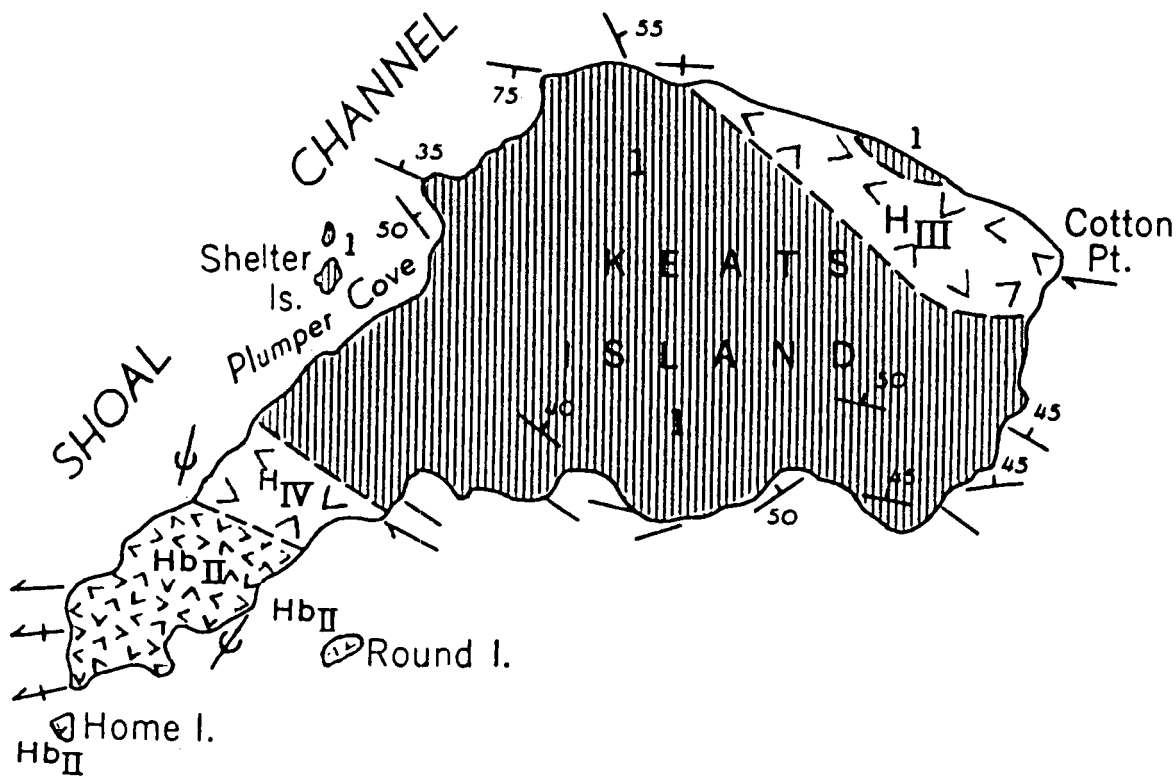


Fig 1 : KEATS ISLAND

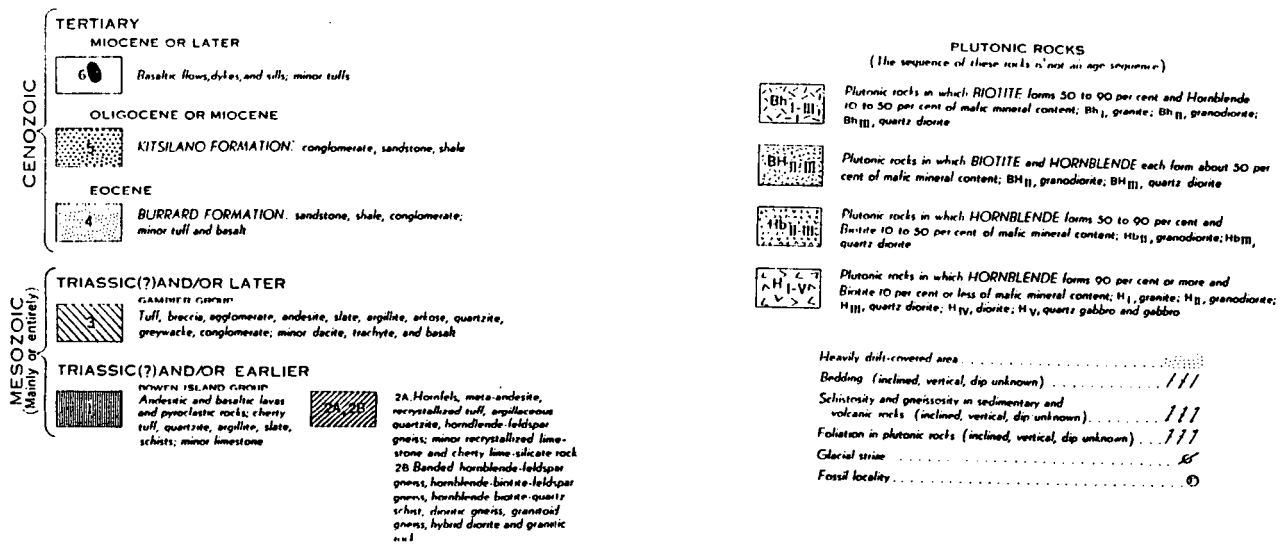


(7)

Figure 2 : Airphoto Mosaic of Keats Island



### LEGEND



## Fig 3 : KEATS ISLAND GEOLOGY

Geology by J. E. Armstrong, 1948-51

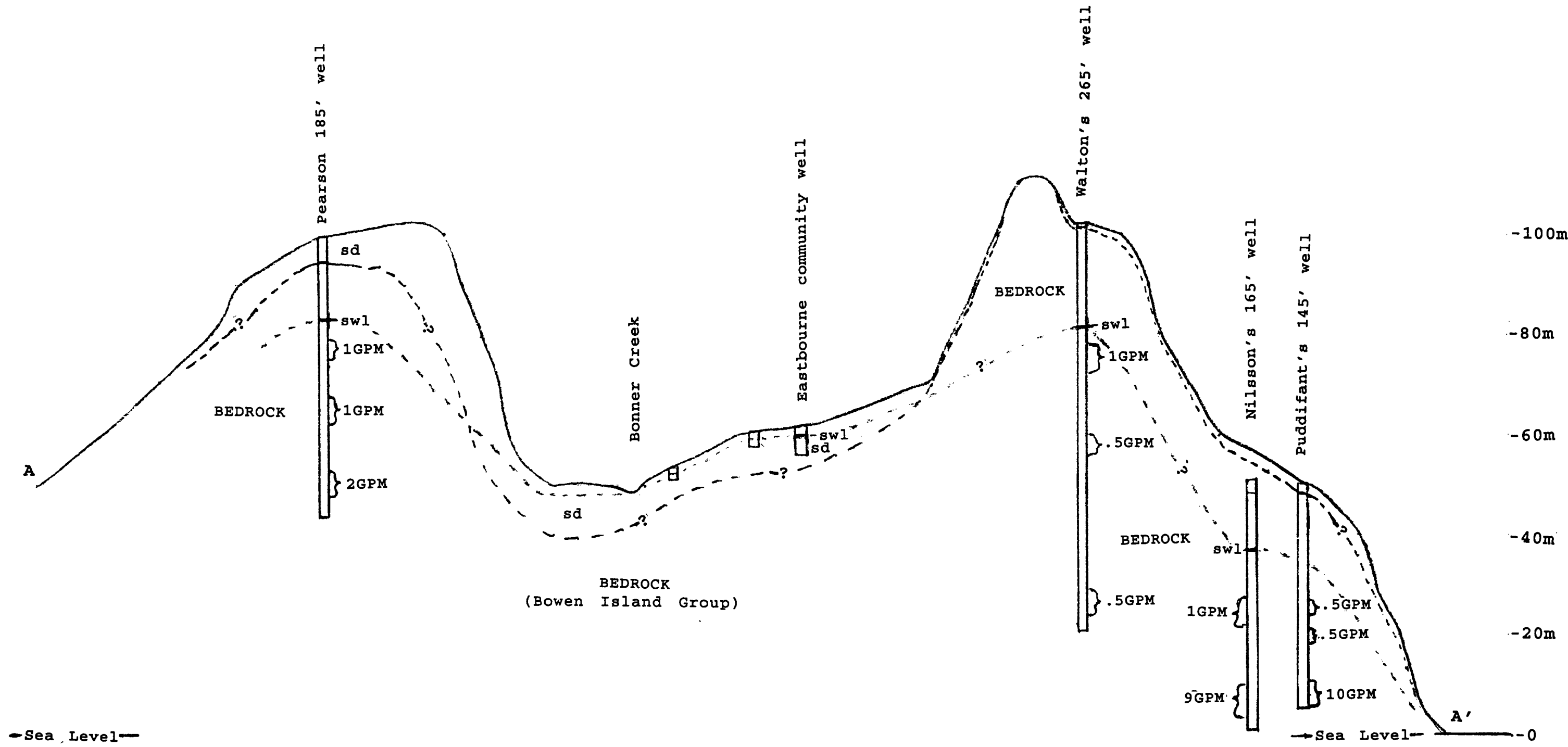


Figure 4 : Cross-Section A - A', Keats Island

**LEGEND**

Static Water Level..... swl  
 Horizontal Scale: 1 to 5,000  
 Vertical Scale: as shown  
 Surficial Deposits.....sd

Ministry of Environment - Water Management Branch - Groundwater Section  
 Groundwater Database System  
 Data Summary - with Legal Descriptions

BCGS Map Area	Well No.	Lot No.	Plan No.	Blk No.	TP	SC	RG	D.L.	L.D.	Owner's Name	Date Constructed (day)	Well Depth (ft.)	Well Diam. (in.)	Drill Contr No.	Const. Method	Well Yield	Yld. Unt.	Depth to Water (ft.)	Depth to Bedrk (ft.)	Aquif Litho	Screen Interval (ft.)	G.W. Rpt	Chem Lab	Chem Fld	Chem Site No.
092G.033.4.3.3	001							696	37	KEATS CAMP(BABTIST)	01-01-68	160.0	6.0	265	DRI	35.0	GPM		40	BED		Y		Y	
092G.033.4.3.4	001	7	6646					1467	37	DAVID BENTALL	01-01-67	80.0	6.0	120	DRI	3.0	GPM		0	BED			Y		
092G.033.4.3.4	002		18682	23				1593	37	CHUCK PEARSON	06-05-92	185.0	6.0	101	DRI	4.0	GPM	56	18	BED					
092G.033.4.4.3	001	11	10378					1595	37	D. PUDDIFANT	20-08-91	145.0	6.0	101	DRI	11.0	GPM		2	BED			Y		
092G.033.4.4.3	002	6	10378	16				1595	37	SOREN NILSSON	14-05-92	165.0	6.0	101	DRI	10.0	GPM	46	9	BED					
092G.033.4.4.3	003	2	10378	19				1595	37	EASTBOURNE COMMUNITY	01-01-50	20.0	84.0	UNK	DUG				UNK	UNC					
092G.033.4.4.3	004		18682	30				1594	37	CARL WALTERS	09-05-92	265.0	6.0	101	DRI	2.0	GPM	68	1	BED				Y	
092G.033.4.4.3	005		18682	30				1594	37	CARL WALTERS		15.0	24.0	UNK	DUG				UNK	UNC				Y	
092G.033.4.4.3	006							1595	37	EASTBOURNE COMMUNITY		20.0	60.0	UNK	DUG			8	UNK	UNC					
092G.033.4.4.3	007		18682	27				1593	37	EASTBOURNE COMMUNITY		20.0	120.0	UNK	DUG			10	UNK	UNC					
092G.033.4.4.3	008	A	2668					1593	37	MR. GEORGE KONING		11.0	0.0	UNK	DUG				UNK	UNC					
092G.033.4.4.3	009		18682	27				1593	37	GEORGE KONING		11.0	144.0	UNK	DUG			6	UNK	UNC					
092G.043.2.1.2	001							1468	37	ENV.,LANDS & PARKS		235.0	6.0	081	DRI	20.0	GPM	22	24	BED				Y	
092G.043.2.1.2	002							1469	37	BARNABUS FAMILY MIN.	07-07-89	407.0	6.0	032	DRI	3.0	GPM	30	66	BED					
092G.043.2.2.1	001		18682	41				1594	37	LEX HANSON(JORDANS)	15-08-91	245.0	6.0	101	DRI	5.0	GPM		2	BED				Y	
092G.043.2.2.1	002		18682	40				1594	37	RICHARD HAMMOND	17-09-83	200.0	6.0	101	DRI	1.0	GPM	45	59	BED					

DISCLAIMER: The Province disclaims all responsibility for the accuracy of this information. This information should not be used as a basis for making financial or any other commitments.

Table 1 : Data Summary of Wells

APPENDIX A  
Detailed Data Report

## WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.033.4.3.3 - 001

Land Dist. :	37	-	NEW WESTMINSTER	Ind. Res. :	
Dist. Lot :	696		Township :	Meridian :	
Plan No. :			Section :	Block :	
Lot No. :			Range :	Quarter :	

Owner Name :	KEATS CAMP(BABTIST)	MOE OBS WELL :	000
Address(Well):			
Area/Town :			
Island Name :	KEATS		
Permit No. :		Loc. Accur. :	

UTM :	Z-	E-	N-			
Old Coord. :	Z-00	X-00	Y-00	TP-	SC-	RG-
Old Well No. :	000			Old Map No. :	000	
Watershed Code:	-	-	-	-	-	-

Drilling Contr. Name:	265	-	FRIESEN DRILLING
Certificate Number :			
Constr. Date (ymd):	68 01 01	Constr. Method:	Drilled

Comment: ORIGINALLY RATED AT 35GPM BUT 1988 REPORT BELIEVES IT PRODUCES APPROX, 10GPM  
SUPPLY APPROX. 80 CABINS, FLOWS DURING WINTER MONTHS. INADEQUATE IN LATE SUMMER.

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0	40.0	stoney clay & till?			
40.0	160.0	bedrock (fractured at 100ft.)			

## TECHNICAL DETAILS:

Ground Elevation:	0	feet		
Well Diameter :	6.0	inch		
Total Well Depth:	160.0	feet		
Depth to Water :		feet		
Artesian Flow :	0.0			
Est. Well Yield :	35.0	GPM		
Depth to Bedrock:	40	feet		
Screen (from):	0	feet	(to):	0 feet
Slot Size :	0	0		
Aquifer Litho. :	Bedrock			
Well Use :	Domestic			
Water Utility :				

## OTHER AVAILABLE INFORMATION:

Pump Test Data :		Chemistry (Lab) :	
Groundwater Report:	yes	Chemistry (Field) :	yes
Sieve Analysis :		Chemistry Site No.:	
Screen Details :			
Other :			

DISCLAIMER: The Province disclaims all responsibility for the accuracy of this information.  
This information should not be used as a basis for making financial or any other commitments.

Ministry of Environment - Water Management Branch - Groundwater Section  
Groundwater Database System  
Detailed Data Report

## WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.033.4.3.4 - 001

Land Dist. : 37 - NEW WESTMINSTER Ind. Res. :  
Dist. Lot : 1467 Township : Meridian :  
Plan No. : 6646 Section : Block :  
Lot No. : 7 Range : Quarter :

Owner Name : DAVID BENTALL MOE OBS WELL : 000  
Address(Well) :  
Area/Town :  
Island Name : KEATS  
Permit No. : Loc. Accur. :

UTM : Z- E- N-  
Old Coord. : Z-00 X-00 Y-00 TP- SC- RG-  
Old Well No. : 000 Old Map No. : 000  
Watershed Code: - - - - -

Drilling Contr. Name: 120 - RURAL WELL DRILLERS  
Certificate Number :  
Constr. Date (ymd): 67 01 01 Constr. Method: Drilled

Comment: WATER ENTERS WELL PRIMARILY FROM FRACTURE AT 70 FT.

## TECHNICAL DETAILS:

Ground Elevation: 0 feet  
Well Diameter : 6.0 inch  
Total Well Depth: 80.0 feet  
Depth to Water : feet  
Artesian Flow : 0.0  
Est. Well Yield : 3.0 GPM  
Depth to Bedrock: 0 feet  
Screen (from): 0 feet (to): 0 feet  
Slot Size : 0 0 0 0  
Aquifer Litho. : Bedrock  
Well Use : Domestic  
Water Utility :

## OTHER AVAILABLE INFORMATION:

Pump Test Data : Chemistry (Lab) : yes  
Groundwater Report: Chemistry (Field) :  
Sieve Analysis : Chemistry Site No.:  
Screen Details :  
Other :

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0	80.0	bedrock (not very hard)			

DISCLAIMER: The Province disclaims all responsibility for the accuracy of this information.  
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Ministry of Environment - Water Management Branch - Groundwater Section  
 Groundwater Database System  
 Detailed Data Report

WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.033.4.3.4 - 002

Land Dist. : 37 - NEW WESTMINSTER Ind. Res. :  
 Dist. Lot : 1593 Township : Meridian :  
 Plan No. : 18682 Section : Block : 23  
 Lot No. : Range : Quarter :

Owner Name : CHUCK PEARSON MOE OBS WELL : 000  
 Address(Well):  
 Area/Town :  
 Island Name : KEATS  
 Permit No. : Loc. Accur. :

UTM : Z- E- N-  
 Old Coord. : Z-00 X-00 Y-00 TP- SC- RG-  
 Old Well No. : 000 Old Map No. : 000  
 Watershed Code: - - - - -

Drilling Contr. Name: 101 - NOR-WEST WELL DRILLING  
 Certificate Number :  
 Constr. Date (ymd): 92 05 06 Constr. Method: Drilled

Comment: DARK FINE GRAINED BEDROCK OUTCROPS NEAR WELLSITE

TECHNICAL DETAILS:

Ground Elevation: 0 feet  
 Well Diameter : 6.0 inch  
 Total Well Depth: 185.0 feet  
 Depth to Water : 56 feet  
 Artesian Flow : 0.0  
 Est. Well Yield : 4.0 GPM  
 Depth to Bedrock: 18 feet  
 Screen (from): 0 feet (to): 0 feet  
 Slot Size : 0 0  
 Aquifer Litho. : Bedrock  
 Well Use : Domestic  
 Water Utility :

OTHER AVAILABLE INFORMATION:

Pump Test Data : Chemistry (Lab) :  
 Groundwater Report: Chemistry (Field) :  
 Sieve Analysis : Chemistry Site No.:  
 Screen Details :  
 Other :

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0	5.0	fill			
5.0	12.0	sand & gravel			
12.0	18.0	gravel & cobbles			
18.0	70.0	green granite (some fractures)			
70.0	82.0	light green granite(some fractures)			
0.0	0.0	1 gpm at 70-82 ft			
82.0	106.0	black granite			
106.0	124.0	black granite & lense of quartz			
0.0	0.0	1 gpm at 106-124			
124.0	156.0	green granite			
156.0	169.0	fractured green granite (2 gpm)			
169.0	185.0	black granite			

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WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.033.4.4.3 - 001

Land Dist. : 37 - NEW WESTMINSTER Ind. Res. :  
 Dist. Lot : 1595 Township : Meridian :  
 Plan No. : 10378 Section : Block :  
 Lot No. : 11 Range : Quarter :

Owner Name : D. PUDDIFANT MOE OBS WELL : 000  
 Address(Well):  
 Area/Town :  
 Island Name : KEATS  
 Permit No. : Loc. Accur. :

UTM : Z- E- N-  
 Old Coord. : Z-00 X-00 Y-00 TP- SC- RG-  
 Old Well No. : 000 Old Map No. : 000  
 Watershed Code: - - - - -

Drilling Contr. Name: 101 - NOR-WEST WELL DRILLING  
 Certificate Number :  
 Constr. Date (ymd): 91 08 20 Constr. Method: Drilled

Comment: LIGHT GREEN, FINE GRAINED BEDROCK OUTCROPS AT ROAD, 20' FROM WELLSITE.  
 SULPHURY SMELL IN SUMMER & INSTALLED A CHARCOAL FILTER.TDS 197,HARDNESS 131.

TECHNICAL DETAILS:

Ground Elevation: 0 feet  
 Well Diameter : 6.0 inch  
 Total Well Depth: 145.0 feet  
 Depth to Water : feet  
 Artesian Flow : 0.0  
 Est. Well Yield : 11.0 GPM  
 Depth to Bedrock: 2 feet  
 Screen (from): 0 feet (to): 0 feet  
 Slot Size : 0 0  
 Aquifer Litho. : Bedrock  
 Well Use : Domestic  
 Water Utility :

OTHER AVAILABLE INFORMATION:

Pump Test Data : Chemistry (Lab) : yes  
 Groundwater Report: Chemistry (Field) :  
 Sieve Analysis : Chemistry Site No.:  
 Screen Details :  
 Other :

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0	2.0	stoney soil & boulders			
2.0	5.0	hard green granite			
5.0	11.0	hard black granite			
11.0	32.0	hard green granite (some fractures)			
32.0	47.0	hard purple granite (some fractures)			
47.0	49.0	soft grey granite			
49.0	62.0	hard black granite (some fractures)			
62.0	72.0	hard purple granite ( fractures )			
72.0	120.0	hard brown shale & layers of black shale (.5gpm @ 75'-85' & .5gpm @ 95-105')			
0.0	0.0				
120.0	140.0	hard green granite, some fractures			
140.0	145.0	hard green granite, some quartz and fractures ( 10 gpm. )			
0.0	0.0				

DISCLAIMER: The Province disclaims all responsibility for the accuracy of this information.  
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CV-11 BCR 16 DL 1550

Form 14500 ROLK WLL

REPORT ON: Results of Testing

**CANTEST**

CanTest Ltd

REPORTED TO: Mr. Jeff Bird  
Westpoint Sales Inc.  
3940 Grant Street  
Burnaby, BC V5C 3N3Professional  
Analytical  
Services

FILE NO: 5653-J

Suite 200  
1523 West 3rd Ave  
Vancouver, BC  
V6J 1J8

DATE: August 25, 1992

Fax: 604 731 2386

Tel: 604 734 7276

We have tested the sample of water submitted by you and report as follows:

**SAMPLE IDENTIFICATION:**PROJECT NAME: Water Quality  
DATE SAMPLED: Not specified  
DATE SUBMITTED: July 24, 1992  
TYPE OF CONTAINER: Plastic**RESULTS OF TESTING:**CANTEST ID #: 5653-J  
CLIENT ID #: KEATS WATER

pH (pH units)	7.92
Total Dissolved Solids	197.
Hardness (as CaCO <sub>3</sub> )	131.
Sulphide	<0.05
Total Iron Fe	0.19
Total Manganese Mn	0.22

&lt; = Less than


All results expressed in milligrams per litre unless otherwise stated.

**METHODS OF TESTING:**

The analyses were carried out in accordance with procedures described in "Laboratory Manual for the Chemical Analysis of Water, Wastewater, Sediments and Biological Materials (2nd Edition)", published by the Government of B.C., Ministry of Environment, Water Resources Services, 1976 and "Standard Methods for the Examination of Water and Wastewater" 17th Edition, 1989 and 16th Edition, 1985, published by the American Public Health Association.

The metals were determined using Inductively Coupled Plasma Spectrographic Analysis, direct or graphite furnace atomic absorption spectrophotometry.

CANTEST LTD.

  
 (P.S.) Richard S. Joritz, A.Sc.T.  
 Supervisor  
 Inorganic Testing
RS:ljr  
C:\WATERLAB\BIRD5653

WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.033.4.4.3 - 002

---

Land Dist. : 37 - NEW WESTMINSTER Ind. Res. :  
 Dist. Lot : 1595 Township : Meridian :  
 Plan No. : 10378 Section : Block : 16  
 Lot No. : 6 Range : Quarter :

---

Owner Name : SOREN NILSSON MOE OBS WELL : 000  
 Address(Well):  
 Area/Town  
 Island Name : KEATS  
 Permit No. : Loc. Accur. :

---

UTM : Z- N-  
 Old Coord. : Z-00 X-00 Y-00 TP- SC- RG-  
 Old Well No. : 000 Old Map No. : 000  
 Watershed Code: - - - - -

---

Drilling Contr. Name: 101 - NOR-WEST WELL DRILLING  
 Certificate Number :  
 Constr. Date (ymd): 92 05 14 Constr. Method: Drilled

TECHNICAL DETAILS:

Ground Elevation: 0 feet  
 Well Diameter : 6.0 inch  
 Total Well Depth: 165.0 feet  
 Depth to Water : 46 feet  
 Artesian Flow : 0.0  
 Est. Well Yield : 10.0 GPM  
 Depth to Bedrock: 9 feet  
 Screen (from): 0 feet (to): 0 feet  
 Slot Size : 0 0  
 Aquifer Litho. : Bedrock  
 Well Use : Domestic  
 Water Utility :

OTHER AVAILABLE INFORMATION:

Pump Test Data : Chemistry (Lab) :  
 Groundwater Report: Chemistry (Field) :  
 Sieve Analysis : Chemistry Site No.:  
 Screen Details :  
 Other :

Comment: GREYISH WHITE, LAYERED , FINE GRAINED BEDROCK OUTCROPS IN IMMEDIATE AREA

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0	2.0	stoney top soil			
2.0	9.0	silty sand, gravel & cobbles			
9.0	34.0	grey & green granite			
34.0	78.0	purple & grey granite			
78.0	96.0	brown & light green granite, fractures			
0.0	0.0	1 gpm			
96.0	134.0	light green granite			
134.0	156.0	green & brown granite (fractures 9 gpm)			
156.0	165.0	green granite			

DISCLAIMER: The Province disclaims all responsibility for the accuracy of this information.  
 This information should not be used as a basis for making financial or any other commitments.

Ministry of Environment - Water Management Branch - Groundwater Section  
 Groundwater Database System  
 Detailed Data Report

WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.033.4.4.3 - 003

Land Dist. : 37 - NEW WESTMINSTER Ind. Res. :  
 Dist. Lot : 1595 Township : Meridian :  
 Plan No. : 10378 Section : Block : 19  
 Lot No. : 2 Range : Quarter :

Owner Name : EASTBOURNE COMMUNITY MOE OBS WELL : 000  
 Address(Well):  
 Area/Town : EASTBOURNE  
 Island Name : KEATS  
 Permit No. : Loc. Accur. :

UTM : Z- E- N-  
 Old Coord. : Z-00 X-00 Y-00 TP- SC- RG-  
 Old Well No. : 000 Old Map No. : 000  
 Watershed Code: - - - - -

Drilling Contr. Name: UNK - Unknown  
 Certificate Number :  
 Constr. Date (ymd): 50 01 01 Constr. Method: Dug

Comment: REPORTED: 7 FT.SQUARE CEDAR CRIBBED FOR 1ST 4 FT THEN OPEN HOLE GOOD QUALITY,

TECHNICAL DETAILS:

Ground Elevation: 0 feet  
 Well Diameter : 84.0 inch  
 Total Well Depth: 20.0 feet  
 Depth to Water : feet  
 Artesian Flow : 0.0  
 Est. Well Yield : 0.0  
 Depth to Bedrock: UNK feet  
 Screen (from): 0 feet (to): 0 feet  
 Slot Size : 0 0 0 0  
 Aquifer Litho. : Unconsolidated  
 Well Use : Commercial and Industrial  
 Water Utility :

OTHER AVAILABLE INFORMATION:

Pump Test Data : Chemistry (Lab) :  
 Groundwater Report: Chemistry (Field) :  
 Sieve Analysis : Chemistry Site No.:  
 Screen Details :  
 Other :

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0 -	20.0	till, water enters in grey gravelly			
0.0 -	0.0	seams in till			

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Ministry of Environment - Water Management Branch - Groundwater Section  
Groundwater Database System  
Detailed Data Report

## WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.033.4.4.3 - 004

Land Dist. : 37 - NEW WESTMINSTER Ind. Res. :  
Dist. Lot : 1594 Township : Meridian :  
Plan No. : 18682 Section : Block : 30  
Lot No. : Range : Quarter :

Owner Name : CARL WALTERS MOE OBS WELL : 000  
Address(Well):  
Area/Town :  
Island Name : KEATS  
Permit No. : Loc. Accur. :

UTM : Z- E- N-  
Old Coord. : Z-00 X-00 Y-00 TP- SC- RG-  
Old Well No. : 000 Old Map No. : 000  
Watershed Code: - - - - -

Drilling Contr. Name: 101 - NOR-WEST WELL DRILLING  
Certificate Number :  
Constr. Date (ymd): 92 05 09 Constr. Method: Drilled

Comment: LIGHT PURPLISH & GREENISH, FINE GRAINED BEDROCK OUTCROPS IN AREA  
SPEC. CONDUCT. 370, NACL <25PPM, HARDNESS 187 PPM.

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0	1.0	top soil			
1.0	28.0	purple & grey granite			
28.0	46.0	fractured purple & grey green granite			
46.0	78.0	grey & green granite			
78.0	96.0	fractured grey & brown granite (1gpm)			
96.0	110.0	grey & brown granite			
110.0	140.0	green granite			
140.0	150.0	grey, brown granite (fractures .5 gpm)			
150.0	195.0	green granite			
195.0	205.0	black, grey & green granite, some			
0.0	0.0	quartz lenses			
205.0	240.0	layers of grey, black & brown granite			
240.0	255.0	fractured grey granite (.5 gpm)			
255.0	265.0	green granite			

## TECHNICAL DETAILS:

Ground Elevation: 0 feet  
Well Diameter : 6.0 inch  
Total Well Depth: 265.0 feet  
Depth to Water : 68 feet  
Artesian Flow : 0.0  
Est. Well Yield : 2.0 GPM  
Depth to Bedrock: 1 feet  
Screen (from): 0 feet (to): 0 feet  
Slot Size : 0 0  
Aquifer Litho. : Bedrock  
Well Use : Domestic  
Water Utility :

## OTHER AVAILABLE INFORMATION:

Pump Test Data : Chemistry (Lab) :  
Groundwater Report: Chemistry (Field) : yes  
Sieve Analysis : Chemistry Site No.:  
Screen Details :  
Other :

DISCLAIMER: The Province disclaims all responsibility for the accuracy of this information.  
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Ministry of Environment - Water Management Branch - Groundwater Section  
 Groundwater Database System  
 Detailed Data Report

WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.033.4.4.3 - 005

Land Dist. : 37 - NEW WESTMINSTER Ind. Res. :  
 Dist. Lot : 1594 Township : Meridian :  
 Plan No. : 18682 Section : Block : 30  
 Lot No. : Range : Quarter :

Owner Name : CARL WALTERS MOE OBS WELL : 000  
 Address(Well) :  
 Area/Town :  
 Island Name : KEATS  
 Permit No. : Loc. Accur. :

UTM : Z- E- N-  
 Old Coord. : Z-00 X-00 Y-00 TP- SC- RG-  
 Old Well No. : 000 Old Map No. : 000  
 Watershed Code: - - - - -

Drilling Contr. Name: UNK - Unknown  
 Certificate Number :  
 Constr. Date (ymd): Constr. Method: Dug

Comment: CORREGATED GALVANIZED CASING, METALLIC TASTE, GRAVELLY SURFACE MATERIAL AT SITE  
 HANDPUMP ON WELL, SPEC. COND.110,PH 6.6 FE. 4, NAACL <25 PPM, HARDNESS 51 PPM.

TECHNICAL DETAILS:

Ground Elevation: 0 feet  
 Well Diameter : 24.0 inch  
 Total Well Depth: 15.0 feet  
 Depth to Water : feet  
 Artesian Flow : 0.0  
 Est. Well Yield : 0.0  
 Depth to Bedrock: UNK feet  
 Screen (from): 0 feet (to): 0 feet  
 Slot Size : 0 0  
 Aquifer Litho. : Unconsolidated  
 Well Use : ABANDONED  
 Water Utility :

OTHER AVAILABLE INFORMATION:

Pump Test Data : Chemistry (Lab) :  
 Groundwater Report: Chemistry (Field) : yes  
 Sieve Analysis : Chemistry Site No.:  
 Screen Details :  
 Other :

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0 -	0.0	gravelly at surface			

DISCLAIMER: The Province disclaims all responsibility for the accuracy of this information.  
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WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.033.4.4.3 - 006

Land Dist. : 37 - NEW WESTMINSTER Ind. Res. :  
 Dist. Lot : 1595 Township : Meridian :  
 Plan No. : Section : Block :  
 Lot No. : Range : Quarter :

Owner Name : EASTBOURNE COMMUNITY MOE OBS WELL : 000  
 Address(Well):  
 Area/Town :  
 Island Name : KEATS  
 Permit No. : Loc. Accur. :

UTM : Z- E- N-  
 Old Coord. : Z-00 X-00 Y-00 TP- SC- RG-  
 Old Well No. : 000 Old Map No. : 000  
 Watershed Code: - - - - -

Drilling Contr. Name: UNK - Unknown  
 Certificate Number :  
 Constr. Date (ymd): Constr. Method: Dug

TECHNICAL DETAILS:

Ground Elevation: 0 feet  
 Well Diameter : 60.0 inch  
 Total Well Depth: 20.0 feet  
 Depth to Water : 8 feet  
 Artesian Flow : 0.0  
 Est. Well Yield : 0.0  
 Depth to Bedrock: UNK feet  
 Screen (from): 0 feet (to): 0 feet  
 Slot Size : 0 0 0 0  
 Aquifer Litho. : Unconsolidated  
 Well Use : Commercial and Industrial  
 Water Utility :

OTHER AVAILABLE INFORMATION:

Pump Test Data : Chemistry (Lab) :  
 Groundwater Report: Chemistry (Field) :  
 Sieve Analysis : Chemistry Site No. :  
 Screen Details :  
 Other :

Comment: THIS WELL IS NOT CASED TO THE BOTTOM, BUT WAS OBSERVED TO BE CASED BELOW THE H2O LEVEL IN WELL.HEAVY USE ON SUMMER WEEKENDS DEPLETES WELL.SYPHON SYSTEM NO PUMP.

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0 -	0.0	fine silty			
0.0 -	0.0	water enters well through gravelly			
0.0 -	0.0	seams in till			

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Ministry of Environment - Water Management Branch - Groundwater Section  
Groundwater Database System  
Detailed Data Report

## WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.033.4.4.3 - 007

Land Dist. : 37 - NEW WESTMINSTER Ind. Res. :  
Dist. Lot : 1593 Township : Meridian :  
Plan No. : 18682 Section : Block : 27  
Lot No. : Range : Quarter :

Owner Name : EASTBOURNE COMMUNITY MOE OBS WELL : 000  
Address(Well):  
Area/Town :  
Island Name : KEATS  
Permit No. : Loc. Accur. :

UTM : Z- E- N-  
Old Coord. : Z-00 X-00 Y-00 TP- SC- RG-  
Old Well No. : 000 Old Map No. : 000  
Watershed Code: - - - - -

Drilling Contr. Name: UNK - Unknown  
Certificate Number :  
Constr. Date (ymd): Constr. Method: Dug

Comment: SYPHON SYSTEM. ON SUMMER WEEKENDS WHEN A FEW HUNDRED PEOPLE ARRIVE THE WELL IS DEPLETED. IT RECOVERS ON THE WEEK DAYS.OPEN HOLE BELOW CRIBBING.IN WOODED AREA.

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0 -	2.0	gravelly			
2.0 -	20.0	till, water enters well through gravelly			
0.0 -	0.0	grey seams in till			

## TECHNICAL DETAILS:

Ground Elevation: 0 feet  
Well Diameter : 120.0 inch  
Total Well Depth: 20.0 feet  
Depth to Water : 10 feet  
Artesian Flow : 0.0  
Est. Well Yield : 0.0  
Depth to Bedrock: UNK feet  
Screen (from): 0 feet (to): 0 feet  
Slot Size : 0 0 0  
Aquifer Litho. : Unconsolidated  
Well Use : Commercial and Industrial  
Water Utility :

## OTHER AVAILABLE INFORMATION:

Pump Test Data : Chemistry (Lab) :  
Groundwater Report: Chemistry (Field) :  
Sieve Analysis : Chemistry Site No.:  
Screen Details :  
Other :

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General Public

ATTN: BENTALL D

Sample 90006571

Site: NOSITE WELL VFT *at 70'*

From : 90/07/13:0000

To : 90/07/13:0000

Depth Range : 0.0 0.0

Tide :

Sample State: Fresh Water

Sample Comment:

Parameter Description	Result	Units	Analytical Technique
pH	7.3	pH units	Automated pH Meter
Specific Conductance	200	uS/cm	Cond. Meter Siebold
Turbidity	0.1	NTU	Nephel. Single Beam
Alkalinity Total 4.5	91.2	mg/L	Automated Electrometer
Hardness Total	104	mg/L	Calculated Result
Coliform - Total	< 2.0	CFU	Filter-Membrane
Fluoride Dissolved	< 0.10	mg/L	I. S. E.
Boron	< 0.01	mg/L	ICP Analysis
Barium	< 0.01	mg/L	ICP Analysis
Calcium	36.7	mg/L	ICP Analysis
Chromium	< 0.01	mg/L	ICP Analysis
Copper	0.06	mg/L	ICP Analysis
Iron	< 0.01	mg/L	ICP Analysis
Magnesium	2.98	mg/L	ICP Analysis
Manganese	< 0.01	mg/L	ICP Analysis
Lead	0.001	mg/L	HNO3 Dig: HGA Analysis
Zinc	< 0.01	mg/L	ICP Analysis
Nitrogen NO3+NO2 Dis	0.15	mg/L	Auto. Cadmium Reduction
Nitrogen NO3 Diss(N)	0.15	mg/L	Calculated Result
Nitrogen NO2 Diss(N)	< 0.005	mg/L	Auto. Diazotization

WELL IDENTIFICATION DETAILS:		TECHNICAL DETAILS:	
BCGS MAP AREA - WELL NO.: 092G.033.4.4.3 - 008		Ground Elevation: 0 feet	
Land Dist. : 37 - NEW WESTMINSTER Ind. Res. :		Well Diameter : 0.0 inch	
Dist. Lot : 1593 Township :		Total Well Depth: 11.0 feet	
Plan No. : 2668 Section :		Depth to Water : 0.0 feet	
Lot No. : A Range :		Artesian Flow : 0.0	
Owner Name : MR. GEORGE KONING MOE OBS WELL : 000		Est. Well Yield : 0.0	
Address(Well):		Depth to Bedrock: UNK feet	
Area/Town :		Screen (from): 0 feet (to): 0 feet	
Island Name : KEATS		Slot Size : 0 0 0 0	
Permit No. :		Aquifer Litho. : Unconsolidated	
Loc. Accur. :		Well Use : Domestic	
UTM : Z- E- N- RG-		Water Utility :	
Old Coord. : Z-00 X-00 Y-00 TP- SC-		OTHER AVAILABLE INFORMATION:	
Old Well No. : 000 Old Map No. : 000		Pump Test Data :	
Watershed Code: - - - - -		Groundwater Report: Chemistry (Lab) :	
Drilling Contr. Name: UNK - Unknown		Sieve Analysis : Chemistry (Field) :	
Certificate Number :		Screen Details :	
Constr. Date (ymd):		Other :	
Constr. Method: Dug			

Comment: SUPPLIES LOG HOUSE ON PARCEL A, REF PLAN 2668 , DUG WITH BACKHOE.

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0	-	2.0	grey	gravelly soil	
2.0	-	11.0	till	(water enters through grey gravelly seams in till )	
0.0	-	0.0			

DISCLAIMER: The Province disclaims all responsibility for the accuracy of this information. This information should not be used as a basis for making financial or any other commitments.

Ministry of Environment - Water Management Branch - Groundwater Section  
Groundwater Database System  
Detailed Data Report

## WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.033.4.4.3 - 009

Land Dist. : 37 - NEW WESTMINSTER Ind. Res. :  
Dist. Lot : 1593 Township : Meridian :  
Plan No. : 18682 Section : Block : 27  
Lot No. : Range : Quarter :

Owner Name : GEORGE KONING MOE OBS WELL : 000  
Address(Well):  
Area/Town :  
Island Name : KEATS  
Permit No. : Loc. Accur. :

UTM : Z- N-  
Old Coord. : Z-00 X-00 Y-00 TP- SC- RG-  
Old Well No. : 000 Old Map No. : 000  
Watershed Code: - - - - -

Drilling Contr. Name: UNK - Unknown  
Certificate Number :  
Constr. Date (ymd): Constr. Method: Dug

Comment: USE FOR HOUSE AND GARDEN, NEVER RAN DRY BUT ONLY 18" OF WATER IN WELL IN LATE  
AUGUST (1992) BUT WITH RECENT RAIN IN SEPT. THE WATER LEVEL ROSE 3 FT. ONE NIGHT

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0 -	2.0	grey gravelly soil			
2.0 -	11.0	till ( water enters through grey			
0.0 -	0.0	gravelly seams in till ).			

## TECHNICAL DETAILS:

Ground Elevation: 0 feet  
Well Diameter : 144.0 inch  
Total Well Depth: 11.0 feet  
Depth to Water : 6 feet  
Artesian Flow : 0.0  
Est. Well Yield : 0.0  
Depth to Bedrock: UNK feet  
Screen (from): 0 feet (to): 0 feet  
Slot Size : 0 0  
Aquifer Litho. : Unconsolidated  
Well Use : Domestic  
Water Utility :

## OTHER AVAILABLE INFORMATION:

Pump Test Data : Chemistry (Lab) :  
Groundwater Report: Chemistry (Field) :  
Sieve Analysis : Chemistry Site No.:  
Screen Details :  
Other :

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Ministry of Environment - Water Management Branch - Groundwater Section  
Groundwater Database System  
Detailed Data Report

## WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.043.2.1.2 - 001

Land Dist. : 37 - NEW WESTMINSTER      Ind. Res. :  
Dist. Lot : 1468      Township :      Meridian :  
Plan No. :      Section :      Block :  
Lot No. :      Range :      Quarter :

Owner Name : ENV., LANDS & PARKS      MOE OBS WELL : 000  
Address(Well): PLUMBER COVE PROV. PARK  
Area/Town :  
Island Name : KEATS  
Permit No. :      Loc. Accur. :

UTM : Z-      E-      N-  
Old Coord. : Z-00      X-00      Y-00      TP-      SC-      RG-  
Old Well No. : 000      Old Map No. : 000  
Watershed Code: -      -      -      -      -      -      -      -      -

Drilling Contr. Name: 081 - LANGLEY WATER WELLS  
Certificate Number :  
Constr. Date (ymd):      Constr. Method: Drilled

Comment: OCT.92 JUST A HANDPUMP ON WELL, IT IS USED FOR DRINKING WATER. FIELD ANALYSIS :  
SPEC. COND. 200 MICROMHOS/CM, PH 6.8, NAACL <25 PPM, HARDNESS 68 PPM.

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0	10.0	till			
10.0	23.0	clay with stones			
23.0	24.5	silty clay			
24.5	235.0	bedrock, fractures @ 115', 207', 222'			

## TECHNICAL DETAILS:

Ground Elevation: 0 feet  
Well Diameter : 6.0 inch  
Total Well Depth: 235.0 feet  
Depth to Water : 22 feet  
Artesian Flow : 0.0  
Est. Well Yield : 20.0 GPM  
Depth to Bedrock: 24 feet  
Screen (from): 0 feet (to): 0 feet  
Slot Size : 0 0 0  
Aquifer Litho. : Bedrock  
Well Use : Other  
Water Utility :

## OTHER AVAILABLE INFORMATION:

Pump Test Data :      Chemistry (Lab) :  
Groundwater Report:      Chemistry (Field) : yes  
Sieve Analysis :      Chemistry Site No. :  
Screen Details :  
Other :

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WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.043.2.1.2 - 002

Land Dist. : 37 - NEW WESTMINSTER Ind. Res. :  
 Dist. Lot : 1469 Township : Meridian :  
 Plan No. : Section : Block :  
 Lot No. : Range : Quarter :

Owner Name : BARNABUS FAMILY MIN. MOE OBS WELL : 000  
 Address(Well) :  
 Area/Town :  
 Island Name : KEATS  
 Permit No. : Loc. Accur. :

UTM : Z- E- N-  
 Old Coord. : Z-00 X-00 Y-00 TP- SC- RG-  
 Old Well No. : 000 Old Map No. : 000  
 Watershed Code: - - - - -

Drilling Contr. Name: 032 - DRILLWELL ENT. / KEN SLADE  
 Certificate Number :  
 Constr. Date (ymd): 89 07 07 Constr. Method: Drilled

Comment: THIS IS THE "CORKUM FARM", QUALITY STATED AS GOOD AND ADEQUATE SUPPLY

TECHNICAL DETAILS:

Ground Elevation: 10 feet  
 Well Diameter : 6.0 inch  
 Total Well Depth: 407.0 feet  
 Depth to Water : 30 feet  
 Artesian Flow : 0.0  
 Est. Well Yield : 3.0 GPM  
 Depth to Bedrock: 66 feet  
 Screen (from): 0 feet (to): 0 feet  
 Slot Size : 0 0  
 Aquifer Litho. : Bedrock  
 Well Use : Domestic  
 Water Utility :

OTHER AVAILABLE INFORMATION:

Pump Test Data : Chemistry (Lab) :  
 Groundwater Report: Chemistry (Field) :  
 Sieve Analysis : Chemistry Site No.:  
 Screen Details :  
 Other :

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0 -	5.0	soil			
5.0 -	40.0	grey silt with sand layer			
40.0 -	66.0	till with boulders			
66.0 -	407.0	shale and sandstone			

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Ministry of Environment - Water Management Branch - Groundwater Section  
Groundwater Database System  
Detailed Data Report

WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.043.2.2.1 - 001

Land Dist. : 37 - NEW WESTMINSTER Ind. Res. :  
Dist. Lot : 1594 Township : Meridian :  
Plan No. : 18682 Section : Block : 41  
Lot No. : Range : Quarter :

Owner Name : LEX HANSON(JORDANS) MOE OBS WELL : 000  
Address(Well):  
Area/Town :  
Island Name : KEATS  
Permit No. : Loc. Accur. :

UTM : Z- E- N-  
Old Coord. : Z-00 X-00 Y-00 TP- SC- RG-  
Old Well No. : 000 Old Map No. : 000  
Watershed Code: - - - - -

Drilling Contr. Name: 101 - NOR-WEST WELL DRILLING  
Certificate Number :  
Constr. Date (ymd): 91 08 15 Constr. Method: Drilled

Comment: PLUTONIC BANDED BEDROCK OBSERVED AT SITE,SOME BANDS PINK AND TO 3 FT WIDE.  
FIELD TEST:SPEC. COND. 400,PH 7.7(?),NACL <25 PPM HARDNESS 170 PPM.

TECHNICAL DETAILS:

Ground Elevation: 0 feet  
Well Diameter : 6.0 inch  
Total Well Depth: 245.0 feet  
Depth to Water : feet  
Artesian Flow : 0.0  
Est. Well Yield : 5.0 GPM  
Depth to Bedrock: 2 feet  
Screen (from): 0 feet (to): 0 feet  
Slot Size : 0 0  
Aquifer Litho. : Bedrock  
Well Use : Domestic  
Water Utility :

OTHER AVAILABLE INFORMATION:

Pump Test Data : Chemistry (Lab) :  
Groundwater Report: Chemistry (Field) : yes  
Sieve Analysis : Chemistry Site No.:  
Screen Details :  
Other :

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0	2.0	fill			
2.0	7.0	multi coloured granite(fractured)			
7.0	12.0	hard green granite			
12.0	22.0	hard green and white granite			
22.0	90.0	hard multi coloured granite			
0.0	0.0	65-75ft. 1 gpm			
90.0	140.0	hard green & white granite			
140.0	145.0	pink granite (140-150ft .5 gpm )			
145.0	170.0	hard green & white granite			
170.0	240.0	fratured green & white granite			
240.0	245.0	green & pink granite (fractured)4gpm.			

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Ministry of Environment - Water Management Branch - Groundwater Section  
Groundwater Database System  
Detailed Data Report

## WELL IDENTIFICATION DETAILS:

BCGS MAP AREA - WELL NO.: 092G.043.2.2.1 - 002

Land Dist. : 37 - NEW WESTMINSTER Ind. Res. :  
Dist. Lot : 1594 Township : Meridian :  
Plan No. : 18682 Section : Block : 40  
Lot No. : Range : Quarter :

Owner Name : RICHARD HAMMOND MOE OBS WELL : 000  
Address(Well) :  
Area/Town :  
Island Name : KEATS  
Permit No. : Loc. Accur. :

UTM : Z- E- N-  
Old Coord. : Z-00 X-00 Y-00 TP- SC- RG-  
Old Well No. : 000 Old Map No. : 000  
Watershed Code: - - - - -

Drilling Contr. Name: 101 - NOR-WEST WELL DRILLING  
Certificate Number :  
Constr. Date (ymd): 83 09 17 Constr. Method: Drilled

Comment: OCT.92 WELL NOT IN USE

## TECHNICAL DETAILS:

Ground Elevation: 0 feet  
Well Diameter : 6.0 inch  
Total Well Depth: 200.0 feet  
Depth to Water : 45 feet  
Artesian Flow : 0.0  
Est. Well Yield : 1.0 GPM  
Depth to Bedrock: 59 feet  
Screen (from): 0 feet (to): 0 feet  
Slot Size : 0 0  
Aquifer Litho. : Bedrock  
Well Use : Domestic  
Water Utility :

## OTHER AVAILABLE INFORMATION:

Pump Test Data : Chemistry (Lab) :  
Groundwater Report: Chemistry (Field) :  
Sieve Analysis : Chemistry Site No.:  
Screen Details :  
Other :

FROM	TO	DRILLER LOG	MATERIAL	DESCRIPTION	COLOR
0.0	4.0	stoney clay			
4.0	16.0	hardpan			
16.0	59.0	till & grey clay			
59.0	63.0	cap rock, hard black granite			
63.0	93.0	hard grey granite			
93.0	155.0	grey granite & layers of sandstone			
0.0	0.0	.5 gpm at 130' - 140'			
155.0	200.0	hard grey granite, some cracks			
0.0	0.0	.5 gpm at 160' - 180'			

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APPENDIX B  
Detailed Water Rights Report

Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
TIME: 11:02  
PAGE: 001

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Licence Number: C016074	File Number: 0152459
Dist/Prec: 29C VAN - HOWE SOUND	Priority Date: 1944/05/08
Region: 02 LOWER MAINLAND	Lic. Status Date: 1991/05/24
Licence Status: C CURRENT	Proc Status Date: -
Process Status:	LTO Code & PID:
Lic. Exp. Date: -	
Fee Receipt No:	

Appurtenancy:  
3.81 AC PARCEL A OF L 1593 GP 1 NWD PLAN 266B

Licensee No. 1	(Client Last Updated: / /	By Region: )
		Client No: 23111
		Work Phone: -----
		Home Phone: -----
		Receives Bill: Y

Total Licence Demand:					
PUC	Description	Quantity/Units	From	To	Irrigated Area
01A	DOM	2,000.000 GD	Jan.01	Dec.31	-

Licence Comments:

POD 1:								
Map No: WR 92.G.033.4.4		POD: A						Rediv: N
PUC	Description	Quantity/Units	Qty	Sto	From	To		Irrigated Area
01A	DOM	2,000.000 G	T		Jan.01	Dec.31		-
POD Comments:								
WSC:	KEA			Source: Bonner Creek				Gaz/Alias: G

Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
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PAGE: 002

-----

Licence Number: C024801	File Number: 0221590
Dist/Prec: 29C VAN - HOWE SOUND	Priority Date: 1958/08/11
Region: 02 LOWER MAINLAND	Lic. Status Date: 1991/05/24
Licence Status: C CURRENT	Proc Status Date: -
Process Status:	LTO Code & PID:
Lic. Exp. Date: -	
Fee Receipt No:	

Appurtenancy:  
L 14 & 15 OF BLK G L 696 KEATS I GP 1 NWD AS SHOWN ON ATTACHED PLAN

Licensee No. 1	(Client Last Updated: / /	By Region: )
		Client No: 23154
		Work Phone: -----
		Home Phone: -----
		Receives Bill: Y

Total Licence Demand:					
PUC	Description	Quantity/Units	From	To	Irrigated Area
01A	DOM	500.000 GD	Jan.01	Dec.31	-

Licence Comments:

POB 1:

Map No: WR 92.G.033.4.3	POB: A	Rediv: N
PUC Description	Quantity/Units Qty Sto	From To Irrigated Area
01A DOM	500.000 G T	Jan.01 Dec.31 -

POB Comments:

WSC: KEA	Source: Resort Spring	Gaz/Alias: A
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Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
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PAGE: 003

Licence Number: C024802	File Number: 0222697
Dist/Prec: 29C VAN - HOWE SOUND	Priority Date: 1958/10/29
Region: 02 LOWER MAINLAND	Lic. Status Date: 1991/05/24
Licence Status: C CURRENT	Proc Status Date: -
Process Status:	LTD Code & PID:
Lic. Exp. Date: -	
Fee Receipt No:	

Appurtenancy:  
L 12 & 13 OF BLK G OF L 696 KEATS I GP 1 NWD AS SHOWN ON ATTACHED PLAN

Licensee No. 1	(Client Last Updated: / /	By Region: )
		Client No: 23155
		Work Phone: -----
		Home Phone: -----
		Receives Bill: Y

Total Licence Demand:					
PUC	Description	Quantity/Units	From	To	Irrigated Area
01A	DOM	500.000 GD	Jan.01	Dec.31	-

Licence Comments:

POD 1:		POD: A			Rediv: N
Map No:	WR 92.G.033.4.3	Quantity/Units	Qty	Sto	From To Irrigated Area
PUC	Description	500.000 G	T		Jan.01 Dec.31 -
01A	DOM				
POD Comments:					
WSC:	KEA	Source: Resort Spring			Gaz/Alias: A

Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
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PAGE: 004

-----

Licence Number: C024804	File Number: 0221737
Dist/Prec: 29C VAN - HOWE SOUND	Priority Date: 1958/08/19
Region: 02 LOWER MAINLAND	Lic. Status Date: 1991/05/24
Licence Status: C CURRENT	Proc Status Date: -
Process Status:	LTO Code & PID:
Lic. Exp. Date: -	
Fee Receipt No:	

Appurtenancy:  
L 18 & 19 OF BLK G OF L 696 KEATS I GP 1 NWD AS SHOWN ON ATTACHED PLAN

Licensee No. 1	(Client Last Updated: / /	By Region: )
		Client No: 23156
		Work Phone: -----
		Home Phone: -----
		Receives Bill: Y

Total Licence Demand:					
PUC	Description	Quantity/Units	From	To	Irrigated Area
01A	DOM	1,000.000 GD	Jan.01	Dec.31	-

Licence Comments:

POD 1:									
Map No: WR 92.G.033.4.3		POD: A					Rediv: N		
PUC	Description	Quantity/Units	Qty	Sto	From	To	Irrigated Area		
01A	DOM	1,000.000 G	T		Jan.01	Dec.31	-		
POD Comments:									
WSC:	KEA	Source: Resort Spring					Gaz/Alias: A		

Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
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Licence Number: C024874  
Dist/Prec: 29C VAN - HOWE SOUND  
Region: 02 LOWER MAINLAND  
Licence Status: C CURRENT  
Process Status:  
Lic. Exp. Date: -  
Fee Receipt No:

File Number: 0221550  
Priority Date: 1958/08/06  
Lic. Status Date: 1991/05/24  
Proc Status Date: -  
LTO Code & PID:

Appurtenancy:  
L 142B SHELTER ISLETS KEATS I GP 1 NWD

Licensee No. 1 (Client Last Updated: / / By Region: )  
Client No: 23157  
Work Phone: -----  
Home Phone: -----  
Receives Bill: Y

Permits Over Crown Land:			Acres	Billed With Lic
PCL No	Code	Description		
04511	06C	OTHER - PIPELINE, ETC	0.250	Y

Total Licence Demand:		Quantity/Units	From	To	Irrigated Area
PUC	Description		Jan.01	Dec.31	
01A	DOM	1,000.000 GD			-

Licence Comments:

POD 1:  
Map No: WR 92.6.033.4.3 POD: A Rediv: N

PUC	Description	Quantity/Units	Qty	Sto	From	To	Irrigated Area
01A	DOM	1,000.000 G	T		Jan.01	Dec.31	-

POD Comments:  
WSC: KEA Source: Resort Spring Gaz/Alias: A

Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
TIME: 11:02  
PAGE: 006

-----

Licence Number: C025054 File Number: 0224862  
 Dist/Prec: 29C VAN - HOWE SOUND  
 Region: 02 LOWER MAINLAND Priority Date: 1959/04/03  
 Licence Status: C CURRENT Lic. Status Date: 1991/05/24  
 Process Status: Proc Status Date: -  
 Lic. Exp. Date: - LTO Code & PID:  
 Fee Receipt No:

Appurtenancy:  
L 9 OF L X OF L 1468 GP 1 NW1 PLAN 8097

Licensee No. 1 (Client Last Updated: 1992/05/14 By Region: 00)  
 Client No: 23159  
 Work Phone: -----  
 Home Phone: -----  
 Receives Bill: Y

Total Licence Demand:		Quantity/Units	From	To	Irrigated Area
PUC	Description				
01A	IOM	250.000 GD	Jan.01	Dec.31	-

Licence Comments:

POD 1:  
 Map No: WR 92.G.043.2.1 POD: E Rediv: N  
 PUC Description Quantity/Units Qty Sto From To Irrigated Area  
 01A IOM 250.000 G M Jan.01 Dec.31 -  
 POD Comments:  
 WSC: KEA Source: Alderson Spring Gaz/Alias: A

POD 2:  
 Map No: WR 92.G.043.2.1 POD: D Rediv: N  
 PUC Description Quantity/Units Qty Sto From To Irrigated Area  
 01A IOM 250.000 G M Jan.01 Dec.31 -  
 POD Comments:  
 WSC: KEA Source: Brown Spring Gaz/Alias: A

Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
TIME: 11:02  
PAGE: 007

```

Licence Number: C025055          File Number:      0226001
Dist/Prec:      29C VAN - HOWE SOUND
Region:         02 LOWER MAINLAND
Licence Status: C CURRENT        Priority Date:    1959/04/03
Process Status:                               Lic. Status Date: 1991/05/24
Lic. Exp. Date: -                               Proc Status Date: -
Fee Receipt No:                               LTO Code & PID:

```

Appurtenancy:  
L 10 OF L X OF L 1468 GP 1 NWD PLAN 8397

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Licensee No. 1    (Client Last Updated: / / By Region: )
                  Client No:      23160
                  Work Phone:     -----
                  Home Phone:     -----
                  Receives Bill: Y

```

Total Licence Demand:		Quantity/Units	From	To	Irrigated Area
PUC	Description				
01A	IDM	250.000 GD	Jan.01	Dec.31	-

Licence Comments:

```

POD 1:
Map No: WR 92.G.043.2.1          POD: E
PUC Description      Quantity/Units Qty Sto From To Rediv: N
01A IDM             250.000 G M Jan.01 Dec.31 Irrigated Area
POD Comments:
WSC: KEA             Source: Alderson Spring          Gaz/Alias: A

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POD 2:
Map No: WR 92.G.043.2.1          POD: D
PUC Description      Quantity/Units Qty Sto From To Rediv: N
01A IDM             250.000 G M Jan.01 Dec.31 Irrigated Area
POD Comments:
WSC: KEA             Source: Brown Spring          Gaz/Alias: A

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Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
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PAGE: 008

-----

Licence Number: C025057 File Number: 0226003  
 Dist/Prec: 29C VAN - HOWE SOUND  
 Region: 02 LOWER MAINLAND Priority Date: 1959/04/03  
 Licence Status: C CURRENT Lic. Status Date: 1991/05/24  
 Process Status: Proc Status Date: -  
 Lic. Exp. Date: - LTO Code & PID:  
 Fee Receipt No:

Appurtenancy:  
L 12 OF L X OF L 1468 GP 1 NWD PLAN B397

Licensee No. 1 (Client Last Updated: / / By Region: )  
 Client No: 23162  
 Work Phone: -----  
 Home Phone: -----  
 Receives Bill: Y

Total Licence Demand:

PUC	Description	Quantity/Units	From	To	Irrigated Area
01A	DOM	250.000 GD	Jan.01	Dec.31	-

Licence Comments:

POD 1:  
 Map No: WR 92.G.043.2.1 POD: E Rediv: N  
 PUC Description Quantity/Units Qty Sto From To Irrigated Area  
 01A DOM 250.000 G M Jan.01 Dec.31 -  
 POD Comments:  
 WSC: KEA Source: Alderson Spring Gaz/Alias: A

POD 2:  
 Map No: WR 92.G.043.2.1 POD: D Rediv: N  
 PUC Description Quantity/Units Qty Sto From To Irrigated Area  
 01A DOM 250.000 G M Jan.01 Dec.31 -  
 POD Comments:  
 WSC: KEA Source: Brown Spring Gaz/Alias: A

Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
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PAGE: 009

-----  
Licence Number: C025058  
Dist/Prec: 29C VAN - HOWE SOUND  
Region: 02 LOWER MAINLAND  
Licence Status: C CURRENT  
Process Status:  
Lic. Exp. Date: -  
Fee Receipt No:

File Number: 0226004  
Priority Date: 1959/04/03  
Lic. Status Date: 1991/05/24  
Proc Status Date: -  
LTO Code & PID:

Appurtenancy:  
L 13 OF L X OF L 1468 GP 1 NWD PLAN 8397

Licensee No. 1 (Client Last Updated: 1992/05/15 By Region: 00)

Client No: 23163  
Work Phone: -----  
Home Phone: -----  
Receives Bill: Y

Total Licence Demand:

PUC	Description	Quantity/Units	From	To	Irrigated Area
01A	DOM	250.000 G	Jan.01	Dec.31	-

Licence Comments:

POD 1:

Map No:	Description	Quantity/Units	Qty	Sto	From	To	Rediv:	Irrigated Area
WR 92.G.043.2.1	DOM	250.000 G	M		Jan.01	Dec.31	N	-

POD: E  
WSC: KEA Source: Alderson Spring Gaz/Alias: A

POD 2:

Map No:	Description	Quantity/Units	Qty	Sto	From	To	Rediv:	Irrigated Area
WR 92.G.043.2.1	DOM	250.000 G	M		Jan.01	Dec.31	N	-

POD: D  
WSC: KEA Source: Brown Spring Gaz/Alias: A

Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
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PAGE: 010

-----  
Licence Number: C025059 File Number: 0226005  
Dist/Prec: 29C VAN - HOWE SOUND  
Region: 02 LOWER MAINLAND Priority Date: 1959/04/03  
Licence Status: C CURRENT Lic. Status Date: 1991/05/24  
Process Status: Proc Status Date: -  
Lic. Exp. Date: - LTO Code & PID:  
Fee Receipt No:

Appurtenancy:  
L 14 OF L X OF L 146B GP 1 NWD PLAN 8397

Licensee No. 1 (Client Last Updated: / / By Region: )  
Client No: 23164  
Work Phone: -----  
Home Phone: -----  
Receives Bill: Y

Total Licence Demand:  
PUC Description Quantity/Units From To Irrigated Area  
01A DOM 250.000 GD Jan.01 Dec.31 -

Licence Comments:

POD 1:  
Map No: WR 92.G.043.2.1 POD: E Rediv: N  
PUC Description Quantity/Units Qty Sto From To Irrigated Area  
01A DOM 250.000 G M Jan.01 Dec.31 -  
POD Comments:  
WSC: KEA Source: Alderson Spring Gaz/Alias: A

POD 2:  
Map No: WR 92.G.043.2.1 POD: D Rediv: N  
PUC Description Quantity/Units Qty Sto From To Irrigated Area  
01A DOM 250.000 G M Jan.01 Dec.31 -  
POD Comments:  
WSC: KEA Source: Brown Spring Gaz/Alias: A

Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
TIME: 11:02  
PAGE: 011

Licence Number: C025060	File Number: 0226006
Dist/Prec: 29C VAN - HOWE SOUND	Priority Date: 1959/04/03
Region: 02 LOWER MAINLAND	Lic. Status Date: 1991/05/24
Licence Status: C CURRENT	Proc Status Date: -
Process Status:	LTO Code & PID:
Lic. Exp. Date: -	
Fee Receipt No:	

Appurtenancy:  
L 15 OF L X OF L 146B GP 1 NWD PLAN B397

Licensee No. 1	(Client Last Updated: / /	By Region: )
		Client No: 23165
		Work Phone: -----
		Home Phone: -----
		Receives Bill: Y

Total Licence Demand:					
PUC	Description	Quantity/Units	From	To	Irrigated Area
01A	DOM	250.000 GD	Jan.01	Dec.31	-

Licence Comments:

POD 1:

Map No: WR 92.G.043.2.1	POD: E	Rediv: N	
PUC Description	Quantity/Units Qty Sto	From To	Irrigated Area
01A DOM	250.000 G M	Jan.01 Dec.31	-

POD Comments:

WSC: KEA	Source: Alderson Spring	Gaz/Alias: A
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POD 2:

Map No: WR 92.G.043.2.1	POD: D	Rediv: N	
PUC Description	Quantity/Units Qty Sto	From To	Irrigated Area
01A DOM	250.000 G M	Jan.01 Dec.31	-

POD Comments:

WSC: KEA	Source: Brown Spring	Gaz/Alias: A
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Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
TIME: 11:02  
PAGE: 012

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Licence Number: C035135                      File Number:            0281847  
 Dist/Prec:        29C VAN - HOWE SOUND  
 Region:            02 LOWER MAINLAND            Priority Date:        1968/10/15  
 Licence Status: C CURRENT                      Lic. Status Date: 1991/05/28  
 Process Status:                                  Proc Status Date:    -  
 Lic. Exp. Date:    -                              LTO Code & PID:  
 Fee Receipt No:

Appurtenancy:  
L 8 & 9 OF BLK H OF L 696 KEATS I    GP 1 NWD AS SHOWN ON ATTACHED  
PLAN

Licensee No 1    (Client Last Updated:    /    /    By Region:    )  
 Client No:        23154  
 Work Phone:      -----  
 Home Phone:      -----  
 Receives Bill: Y

Total Licence Demand:

PUC	Description	Quantity/Units	From	To	Irrigated Area
01A	IDM	500.000 GD	Jan.01	Dec.31	-

Licence Comments:

POD 1:  
 Map No: WR 92.6.033.4.3                      POD: A                      Rediv:    N  
 PUC    Description                      Quantity/Units    Qty    Sto    From    To            Irrigated Area  
 01A    IDM                                    500.000    G    T        Jan.01    Dec.31       -  
 POD Comments:  
 WSC:        KEA                                  Source: Resort Spring                      Gaz/Alias: A

Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
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PAGE: 013

-----

Licence Number: C042333	File Number: 0322057
Dist/Prec: 29C VAN - HOWE SOUND	Priority Date: 1973/10/25
Region: 02 LOWER MAINLAND	Lic. Status Date: 1991/05/28
Licence Status: C CURRENT	Proc Status Date: -
Process Status:	LTO Code & PID:
Lic. Exp. Date: -	
Fee Receipt No:	

Appurtenancy:  
L 1428 GP 1 NWD

Licensee No. 1	(Client Last Updated: / /	By Region: )
		Client No: 23157
		Work Phone: -----
		Home Phone: -----
		Receives Bill: Y

Permits Over Crown Land:				
PCL No	Code	Description	Acres	Billed With Lic
09447	06C	OTHER - PIPELINE, ETC	0.900	Y

Total Licence Demand:					
PUC	Description	Quantity/Units	From	To	Irrigated Area
01A	IDM	1,000.000 GD	Jan.01	Dec.31	-

Licence Comments:

POD 1:  
Map No: WR 92.G.043.2.1

PUC	Description	Quantity/Units	Qty	Sto	From	To	Rediv:	N
01A	IDM	1,000.000 G	T		Jan.01	Dec.31	Irrigated Area	-

POD Comments:  
WSC: KEA Source: Meek Creek Gaz/Alias: A

Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
TIME: 11:02  
PAGE: 014

Licence Number: C042774	File Number: 0322004
Dist/Prec: 29C VAN - HOWE SOUND	Priority Date: 1973/10/17
Region: 02 LOWER MAINLAND	Lic. Status Date: 1991/05/28
Licence Status: C CURRENT	Proc Status Date: -
Process Status:	LTO Code & PID:
Lic. Exp. Date: -	
Fee Receipt No:	

Appurtenancy:  
L 1 OF L 1467 GP 1 NWD PLAN 6646

Licencee No. 1	(Client Last Updated: / /	By Region: )
		Client No: 24957
		Work Phone: -----
		Home Phone: -----
		Receives Bill: Y

Total Licence Demand:					
PUC	Description	Quantity/Units	From	To	Irrigated Area
01A	DOM	500.000 GD	Jan.01	Dec.31	-

Licence Comments:

POD 1:								
Map No: WR 92.G.043.2.1								POD: H
PUC	Description	Quantity/Units	Qty	Sto	From	To		Rediv: N
01A	DOM	500.000 G	T		Jan.01	Dec.31		Irrigated Area
								-
POD Comments:								
WSC: KEA					Source: Meek Creek			Gaz/Alias: A

Detailed Licence Report Water Licence Information System

DATE: 1992/07/29  
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Licence Number: C042775	File Number: 0322003
Dist/Prec: 29C VAN - HOWE SOUND	Priority Date: 1973/10/17
Region: 02 LOWER MAINLAND	Lic. Status Date: 1991/05/28
Licence Status: C CURRENT	Proc Status Date: -
Process Status:	LTO Code & PID:
Lic. Exp. Date: -	
Fee Receipt No:	

Appurtenancy:  
IR #27 SHELTER ISLTET GP 1 NWD

Licencee No. 1	(Client Last Updated:	/ /	By Region:	)
			Client No:	26476
			Work Phone:	-----
			Home Phone:	-----
			Receives Bill:	Y

Licencee No. 2	(Client Last Updated:	/ /	By Region:	)
			Client No:	8357
			Work Phone:	-----
			Home Phone:	-----

Permits Over Crown Land:				
PCL No	Code	Description	Acres	Billed With Lic
09579	06C	OTHER - PIPELINE, ETC	0.930	Y

Total Licence Demand:					
PUC	Description	Quantity/Units	From	To	Irrigated Area
01A	DOM	500.000 GD	Jan.01	Dec.31	-

Licence Comments:

POD 1:		POD: J		Rediv: N	
Map No:	WR 92.6.043.2.1	Quantity/Units	Qty	Sto	From To Irrigated Area
PUC	Description	500.000 G	T		Jan.01 Dec.31 -
01A	DOM				
POD Comments:					
WSC:	KEA	Source: Meek Creek			Gaz/Alias: A



Detailed Licence Report Water Licence Information System

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Licence Number: F019765	File Number: 0225396
Dist/Prec: 29C VAN - HOWE SOUND	Priority Date: 1959/09/17
Region: 02 LOWER MAINLAND	Lic. Status Date: 1991/05/28
Licence Status: C CURRENT	Proc Status Date: -
Process Status:	LTO Code & PID:
Lic. Exp. Date: -	
Fee Receipt No:	

Appurtenancy:  
PARCEL B OF L 1468 KEATS I GP 1 NWD

Licensee No. 1 (Client Last Updated: 1992/06/22 By Region: 00)

Client No:	14475
Work Phone:	-----
Home Phone:	-----
Receives Bill:	Y

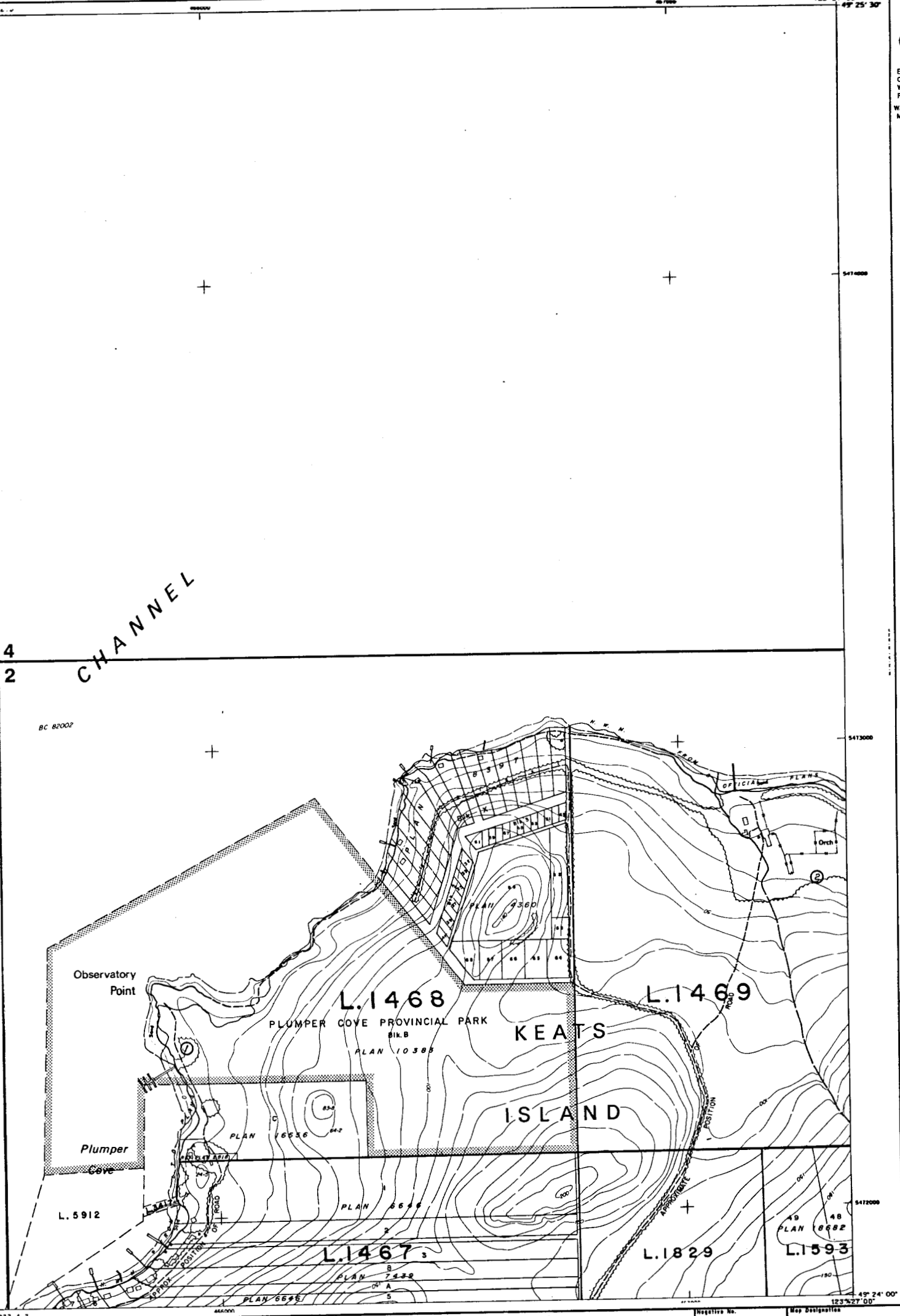
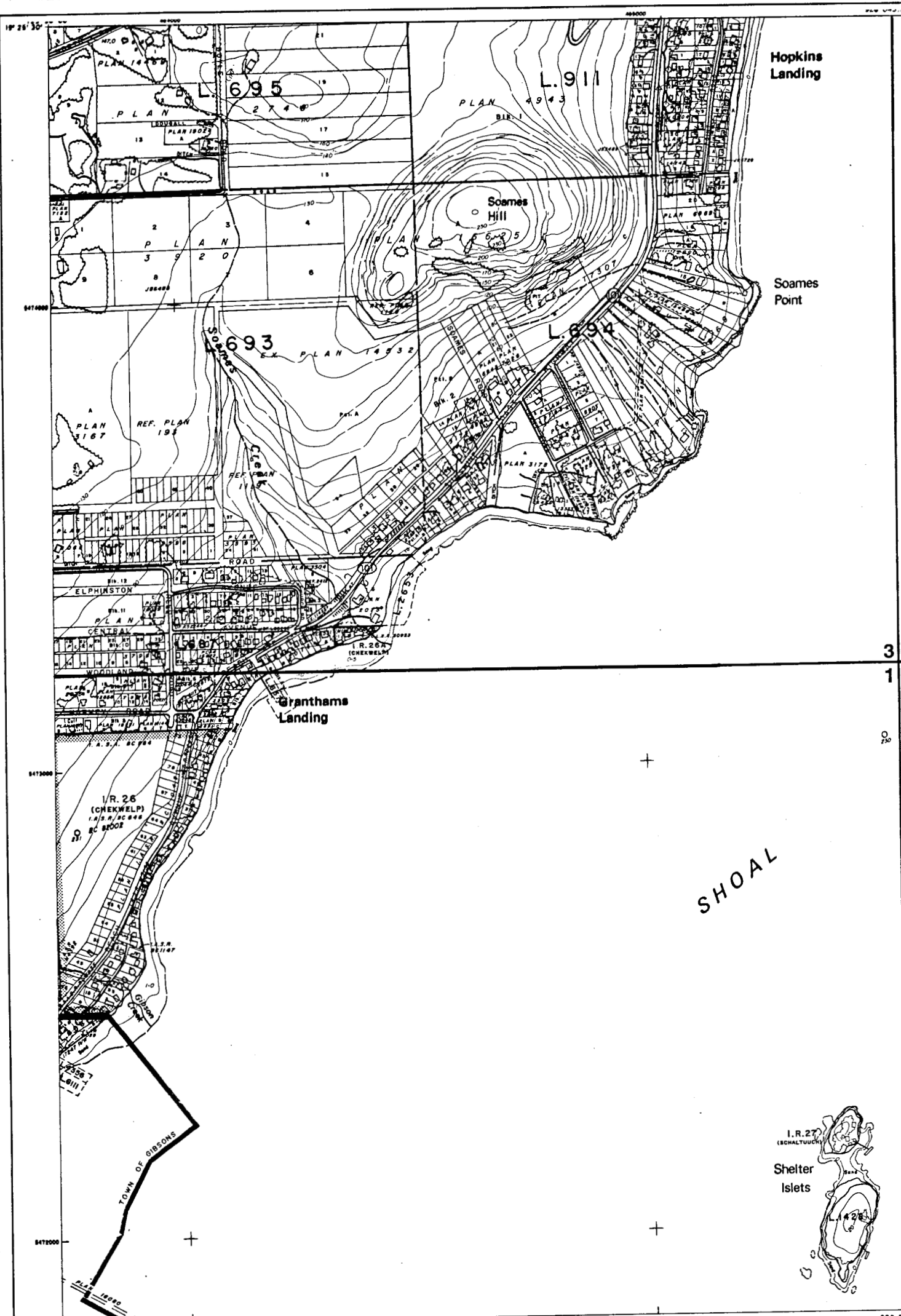
Total Licence Demand:					
PUC	Description	Quantity/Units	From	To	Irrigated Area
00B	WWK	4,000.000 GD	Jan.01	Dec.31	-

Licence Comments:

POD 1:  
Map No: WR 92.6.043.2.1

PUC	Description	Quantity/Units	Qty	Sto	From	To	Rediv:	Irrigated Area
00B	WWK	4,000.000 G	T		Jan.01	Dec.31	-	

POD Comments:  
WSC: KEA Source: Park Brook Gaz/Alias: A



**LEGEND**

⑦ DENOTES WATER WELL LOCATION AND WELL NUMBER

EACH WATER WELL LOCATION ON THIS MAP REFERS TO A WATER WELL RECORD ON FILE WITH THE WATER MANAGEMENT BRANCH, MINISTRY OF ENVIRONMENT AND PARKS

CONTOUR INTERVAL: 10 m

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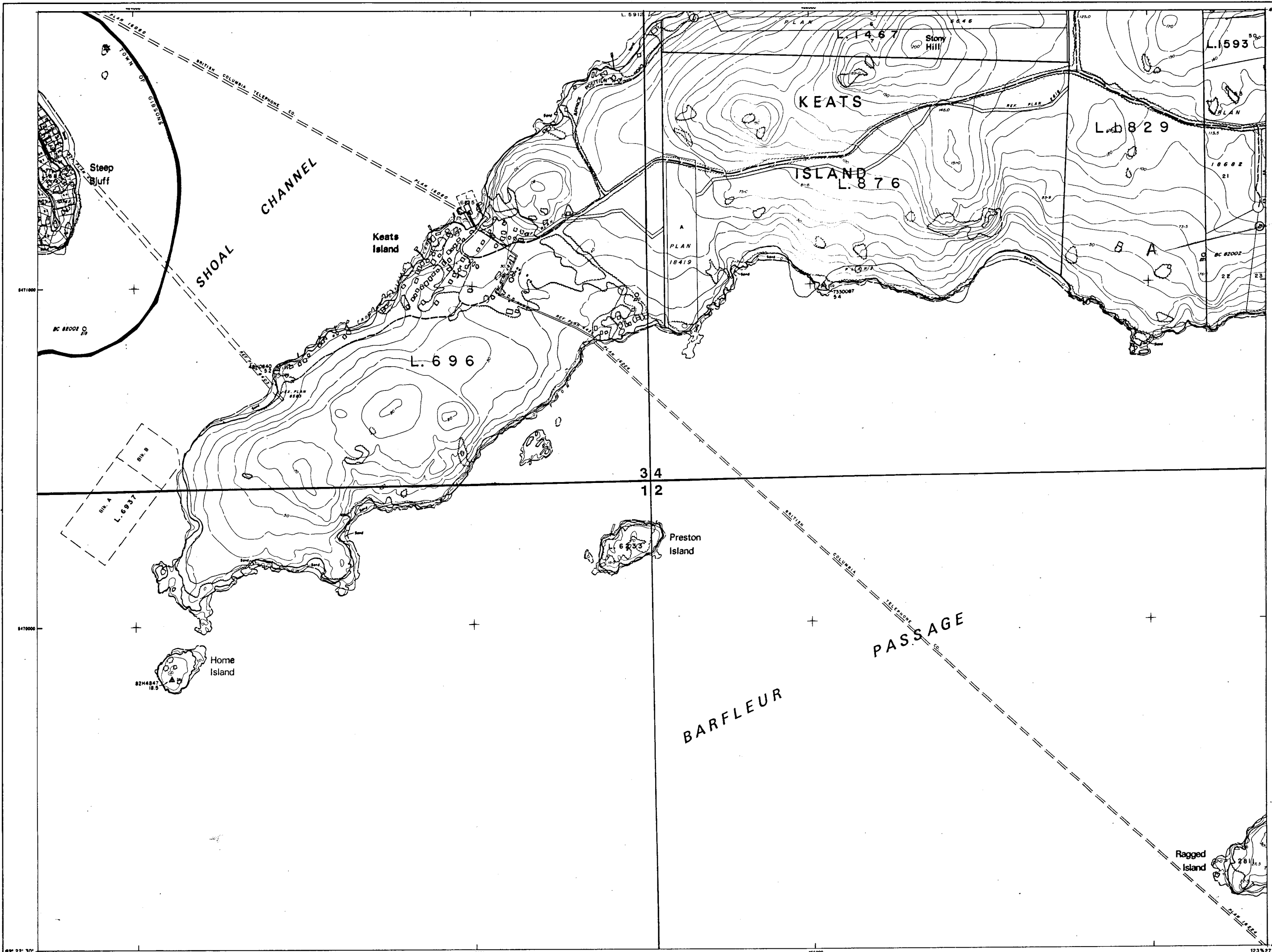
LAND DISTRICT(S):

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BRITISH COLUMBIA GEOGRAPHIC NUMBERING SYSTEM MAPPING SCALES 1:20 000 to 1:25 000

49° 24' 00" N  
123° 27' 00" W

B.C.S. MAP NUMBER



**LEGEND**

⑦ DENOTES WATER WELL LOCATION AND WELL NUMBER

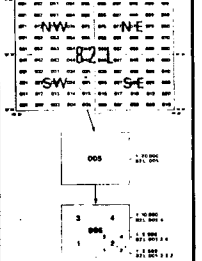
EACH WATER WELL LOCATION ON THIS MAP REFERS TO A WATER WELL RECORD ON FILE WITH THE:

WATER MANAGEMENT BRANCH  
MINISTRY OF ENVIRONMENT AND PARKS

CONTOUR INTERVAL m

LAND DISTRICT(S):

BRITISH COLUMBIA  
GEOGRAPHIC NUMBERING SYSTEM  
MAPPING SCALES 1:20 000 TO 1:25 000



49° 22' 30" 123° 27' 00"

465000 466000

847000 848000

49° 22' 30" 123° 27' 00"

Copies available from:  
 Province of British Columbia Ministry of Environment  
 GROUNDWATER SECTION, WATER MANAGEMENT BRANCH  
 Parliament Buildings, Victoria, British Columbia, V8V 1X5

SEE MAP INDEX

MAP BASE DATE: C-76-909 T-82-020

REVISION DATE:

WATER DISTRICT

PRECINCT

U.T.M. Zone

**WATER WELL LOCATION MAP**

SCALE - 1:5000

Metres 100 0 100 200 300 400 500 Metres

Feet 400 0 400 800 1200 Feet

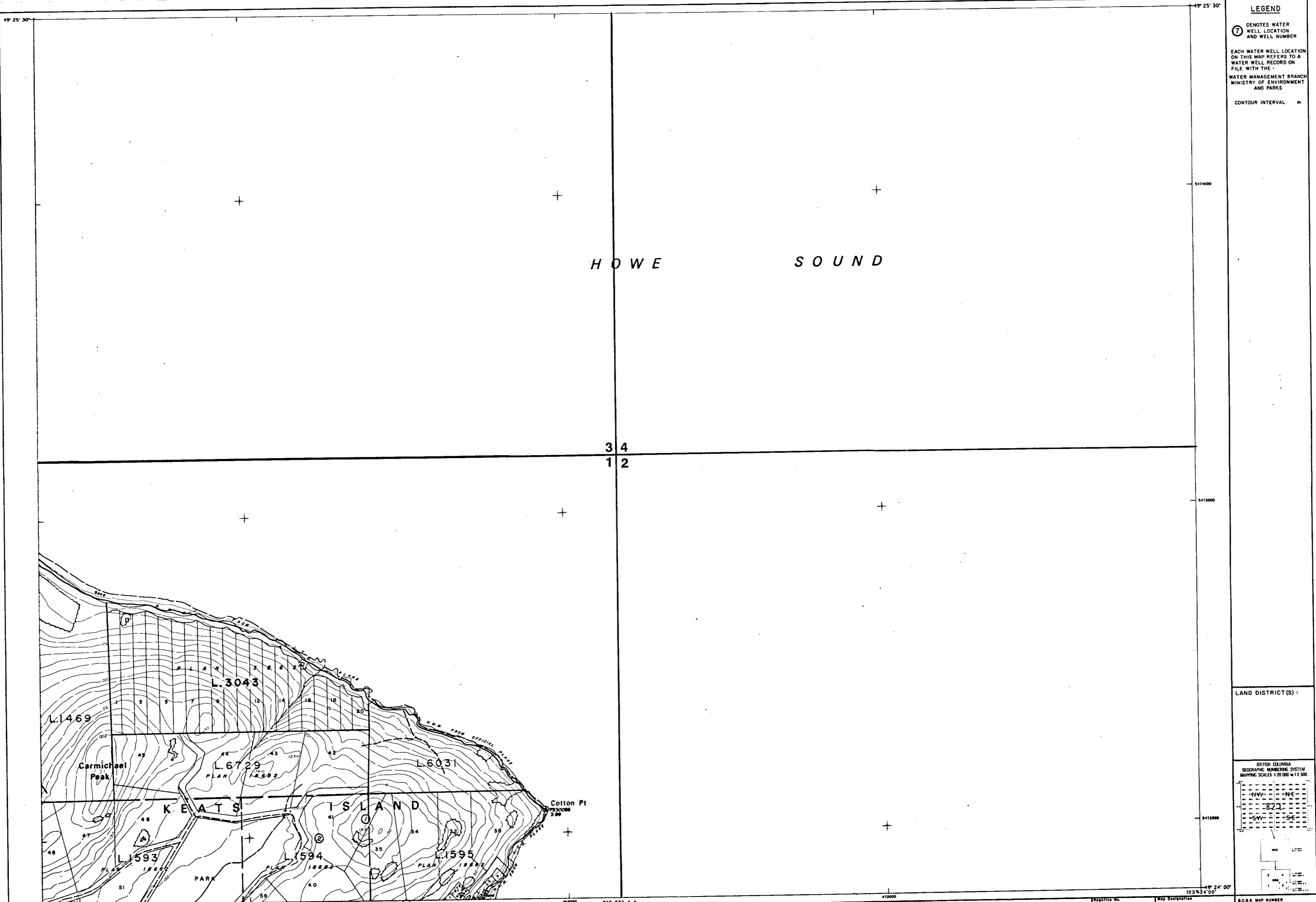
Negative No.

Map Designation

To order prints quote this map number:

**W.W. 92G-033-4-3**

B.C.S. MAP NUMBER



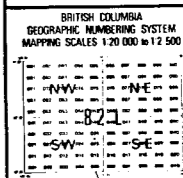
**LEGEND**

⑦ DENOTES WATER WELL LOCATION AND WELL NUMBER

EACH WATER WELL LOCATION ON THIS MAP REFERS TO A WATER WELL RECORD ON FILE WITH THE WATER MANAGEMENT BRANCH, MINISTRY OF ENVIRONMENT AND PARKS

CONTOUR INTERVAL: m

LAND DISTRICT(S):



B.C.S. MAP NUMBER

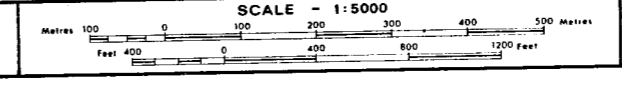
Copies available from:  
**Province of British Columbia** Ministry of Environment  
 GROUNDWATER SECTION, WATER MANAGEMENT BRANCH  
 Parliament Buildings, Victoria, British Columbia, V8V 1X5

SEE MAP INDEX  
 MAP BASE DATE: CAT-82-020  
 REVISION DATE:

WATER DISTRICT  
 PRECINCT

U.T.M. Zone

**WATER WELL LOCATION MAP**



Map Description  
 To order prints quote this map number:  
**W.W. 92G-043-2-2**

B.C.S. MAP NUMBER