WELL NUMBER 4959-04 WELL NAME Waialae Salt 4

ATTACHMENTS FOR WELL CONSTRUCTION PERMIT:
1 COVER LETTER
2 PERMIT (2x)
3 SDWB
4 WWB
5 CWB
7 LD
8 HP
9 OCCL
10 SMA

TO BE SENT TO APPLICANT
FOR OFFICE USE ONLY

ATTACHMENTS FOR PUMP INSTALLATION PERMIT:
1 COVER LETTER
2 PERMIT (2x)
3 SDWB
4 WWB
5 CWB
6 LD
7 HP
8 OCCL
9 SMA

TO BE SENT TO APPLICANT
FOR OFFICE USE ONLY

I don't think we need to send this out for review again, since its my salt water. It is only intended to deepen. 

What is water to be used for?

Used for anchialine pools, which are getting too fresh.

Strange.
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR NEW APPLICATIONS

FROM: RYAN
DATE: 3-Oct-06
SUSPENSE DATE: 10-Oct-06

TO: INIT. TO: INIT. FOR: PLEASE:
CHING, F. 4 NAKAMA, L. 1 Approval 1 Review & Comment
FUJI, N. 3 OHYE, M. 1 Signature 2 Type Final w/elec.signat., label file folder
GOODING, K. 3 NAKANO, D. 3 Information 4 File
1 HARDY, R. SAKODA, E. 4 Xerox copies
HIGA, D. SWANSON, S. 1 Approval
2 HOAGBIN, S. UYENO, D. 1 Review & Comment
ICE, C. YODA, K. 2 Type Final w/elec.signat., label file folder
IMATA, R. YOSHINAGA, M. 4 File
KUNIMURA, I. NAOKO, N. 1 Approval

WELL NUMBER 4959-04  WELL NAME Hualalai Salt 4

ATTACHMENTS FOR APPLICATION PROCESSING - Both applicant & staff generated
1 TRANS. LETTER
2 PERMIT PROCESS TABLE
3 CWRM MAP
4 APPL. FORM (11 COPIES)
5 USPS MAPS (11 COPIES)
6 TAX MAPS (11 COPIES)
7 PARCEL OWNER VERIF. MLS PRINTOUT
8 CONTRACTOR VERIF. DCCA LICENSE SCREEN PRINTOUT
9 ALL INFO FILLED IN
10 BACKGROUND CHECK
11 $25 FEE DEPOSIT SLIP
12 DHP/CDUP/SMA pre-screen (SMA map printout http://gis.hicentral.com/website/parcelzoning/viewer.htm., or INGRID'S SMA/CD MAP)
(LUC map printout http://luc.state.hi.us/luc_maps.htm., or INGRID'S SMA/CD MAP)

FOLDER:
□ MADE NEW FILE FOLDER, ATTACHED
□ FILE FOLDER ALREADY MADE, IN FILE CABINET

INCOMPLETE ACTION DATES:

DATE ACTION

Follow-up before accepting.
Ref: 4959-04.wcp

December 8, 2006

Mr. Rodney Couch
Couch Well Drilling
P.O. Box 1329
Kealakekua, HI 96750

Dear Mr. Couch:

Well Construction Permit
Hualalai Salt #4 Well (Well No. 4959-04)

We accept your application as complete on October 20, 2006. Enclosed are two (2) copies of your approved Well Construction Permit for the captioned well(s) that authorize well construction activities but excludes installation work for a permanent pump. As part of the Chairperson's approval, the following special conditions were added and are part of your permit under Permit Condition 13:

Special Conditions

1. Attached for your information are copies of the Department of Health's (DOH) review comments. Please note DOH's requirements related to discharge of effluent from well drilling and testing activities.

No withdrawal of water shall be made other than for testing purposes until a certificate of pump installation completion has been issued by the Commission.

Please sign both permit originals and return one for our files. For copies of the aquifer pump test worksheet, please call staff or visit www.state.hi.us/dlnr/cwrmlforms.htm.

IMPORTANT - Drilling work shall not commence until a fully signed permit is returned to the Commission. The permit shall be prominently displayed or made available at the construction site during construction. Be advised that you may be subject to fines of up to $5,000 per day for any violations of your permit conditions starting from the permit approval date.

If you have any questions, please call Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), 984-2400 (Maui), or 1-800-468-4644 (Lanai & Molokai), extension 70255.

Sincerely,

Peter T. Young
Chairperson

Enclosures

c: Hualalai Development Corp.
USGS
Hawaii DWS
In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of Hualalai Salt #4 Well (Well No. 4959-04) at TMK 7-2-003:004, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work authorized by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.

3. The well construction permit shall be for construction and testing of the well only. The permittee shall coordinate with the Chairperson and conduct a pumping test in accordance with the HWCPIS (the latest pump test worksheet can be obtained by contacting Commission staff or at www.hawaii.gov/dlnr/cwrmlforms.htm). The permittee shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson. No withdrawal of water shall be made for purposes other than testing without a Certificate of Pump Installation Completion. The permitted pump capacity described on the pump installation permit may be reduced in the event that the pump test does not support the capacity.

4. In basal ground water, the depth of the well may not exceed one-fourth (1/4) of the theoretical thickness (41 times initial head) of the basal ground water unless otherwise authorized by the Chairperson.

5. The permittee shall incorporate mitigation measures to prevent construction debris from entering the aquatic environment, to schedule work to avoid periods of high rainfall, and to revegetate any cleared areas as soon as possible.

6. In the event that historically significant remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall notify and immediately contact the Department of Land and Natural Resources' Division of Historic Preservation.

7. The proposed well construction shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to construct the well shall not constitute a determination of correlative water rights.

8. The Well Completion Report Part I shall be submitted to the Chairperson within sixty (60) days after completion of work (please contact staff or visit www.hawaii.gov/dlnr/cwrmlforms.htm for current form).

9. The permittee shall comply with all applicable laws, rules, and ordinances; non-compliance may be grounds for revocation of this permit.

10. The well construction permit application and any related staff submission approved by the Commission are incorporated into this permit by reference. This permit is also subject to the HWCPIS. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

11. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than the date the permit expires.

12. If the well is not to be used it must be properly capped. If the well is to be abandoned during the course of the project then the permittee must apply for a well abandonment permit in accordance with §13-168-12(f) prior to any well sealing or plugging work.

13. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

14. This permit shall apply to the location shown on the application only. If the well is to be relocated, the permittee shall apply for a new well construction/pump installation permit in accordance with Hawaii Administrative Rules §13-168-12(f).

15. Special conditions in the attached cover transmittal letter are incorporated herein by reference.

Date of Approval: October 20, 2006
Expiration Date: October 20, 2008

PETER T. YOUNG, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I have signed, dated, and returned the permit to the Commission. I understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5,000 per day starting from the permit date of approval.

Driller’s Signature: ________________________  C-57 License #:  C-23094  Date: ________________________
Printed Name: Rodney Couch  Firm or Title:  Couch Well Drilling

Please sign both copies of this permit, return one to the Chairperson, and retain the other for your records.

Attachment
<table>
<thead>
<tr>
<th>Approved</th>
<th>Well No.</th>
<th>Well Name</th>
<th>Applicant</th>
<th>Driller</th>
<th>Pump Inst.</th>
<th>Type</th>
<th>Well Construction</th>
<th>Pump Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/20/2003</td>
<td>4959-20</td>
<td>Raptor Residency</td>
<td>Raptor Residence, LLC</td>
<td>C-23094</td>
<td></td>
<td>BOTH</td>
<td>2/10/2005</td>
<td>4/7/2005</td>
</tr>
<tr>
<td>1/1/2003</td>
<td>5206-03</td>
<td>Kiko 1</td>
<td>Carlos Parisi</td>
<td>C-23094</td>
<td>C-23094</td>
<td>BOTH</td>
<td>8/28/2003</td>
<td>4/7/2005</td>
</tr>
</tbody>
</table>

**Well Background Check**

Tuesday, October 03, 2006
<table>
<thead>
<tr>
<th>TO:</th>
<th>INIT.</th>
<th>TO:</th>
<th>INIT.</th>
<th>FOR:</th>
<th>PLEASE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAUER, G.</td>
<td></td>
<td>LOUI, R.</td>
<td></td>
<td>Approval</td>
<td>See Me</td>
</tr>
<tr>
<td>CHING, F.</td>
<td></td>
<td>NAKAMA, L.</td>
<td></td>
<td>Signature</td>
<td>Review &amp; Comment</td>
</tr>
<tr>
<td>FUJII, N.</td>
<td></td>
<td>NAKANO, D.</td>
<td></td>
<td>Information</td>
<td>Take Action</td>
</tr>
<tr>
<td>HARDY, R.</td>
<td>X</td>
<td>OHYE, M.</td>
<td></td>
<td></td>
<td>Type Draft</td>
</tr>
<tr>
<td>HIGA, D.</td>
<td></td>
<td>SAKODA, E.</td>
<td></td>
<td></td>
<td>Type Final</td>
</tr>
<tr>
<td>HIRANO, E.</td>
<td></td>
<td>SUBIA, S.</td>
<td></td>
<td></td>
<td>File</td>
</tr>
<tr>
<td>ICE, C.</td>
<td></td>
<td>SWANSON, S.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JINNAI, R.</td>
<td></td>
<td>UWANE, J.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KUNIMURA, I.</td>
<td></td>
<td>YODA, K.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There's an error for well site at the fitness center. Do you know whether the well has been drilled?

YES.

Wells must be next to the ocean. They should ask for ocean bottom data. Under the physical demand measurements at the beginning of the text before the strong tidal influence.
State of Hawaii  
COMMISSION ON WATER RESOURCE MANAGEMENT  
Department of Land and Natural Resources

WELL COMPLETION REPORT

(W) Well Construction  ( ) (Permanent) Pump Installation

Instructions: Please print or type and submit completed report within 30 days after well completion to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. An as-built drawing of the well and chemical analysis should also be submitted. For assistance call the Commission Regulation Branch at 587-0225, or 1-800-468-4644 Extension 70225.

1. State Well No.: 4959-05  Well Name: Beach Pool Well  Island: Hawaii
2. Location/Address: Kaupulehu, Hawaii  Tax Map Key: 57-2-03:5

PART I. WELL CONSTRUCTION REPORT

3. Drilling Company: Roscoe Moss Hawaii, Inc.
4. Name of driller who performed work:
5. Type of rig/construction: 235 CAT Excavator w/Hammer Well Completed September 20, 1996
6. Date(s) Well Construction and pump tests (if any) completed: Pump 9-13,14,1996, Well Completed September 20, 1996
7. GROUND ELEVATION (referred to mean sea level, msl): 3.33 (Finish Floor)

Well Bench Mark (description/location):

8. DRILLER'S LOG: Please attach geologic log (if available or if required by permit)

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, Dates, etc.</th>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, Dates, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 8</td>
<td>Vesicular Basalt-Dense</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>(If more space is needed, continue on back.)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Total depth of well below ground: 8 ft.
10. Hole size: 12 inch dia. from 0 ft. to 8 ft. below ground

11. Casing installed:
- 6 in. I.D. x 0.28 in. wall solid section to 2 ft. below ground
- 6 in. I.D. x 0.28 in. wall perforated section to 8 ft. below ground

Casing Material/Slot Size: PVC, 0.02" Slot Width

12. Annulus:
- Grouted from 0 ft. below ground to 2 ft. below ground
- Gravel packed from 2 ft. below ground to 8 ft. below ground

13. Initial water level: 3 ft. below ground. Date and time of measurement:
14. Initial chloride: ppm Date and time of sampling:
15. Initial temperature: °F Date and time of measurement:

16. PUMPING TESTS: Reference Point (R.P.) used: Top Flange, which elevation is 4.06 ft.
   (1) Step-Drawdown Test Date N/A
   (2) Long-term Aquifer Test Date See Attached Graph

17. Aquifer Pump Test Procedures data & graphs (1/9/96 LTAT Form) attached? Yes x No
18. As-built drawings attached? Yes x No
19. Other remarks/comments: (On back of this form)

Well Drilling Contractor (print) Roscoe Moss Hawaii, Inc. C-57 Lic. No. C-16437
Signature

Surveyor (print) See Attached Certification
Signature Letter From RM Towill Corporation

Applicant (print)
Signature

Date 9/20/96
PART II.  (PERMANENT) PUMP INSTALLATION REPORT

20. Pump Installation Company: ____________________________

21. Name of person performing work: ____________________

22. Date Pump Installation Completed: ____________________

23. PUMP INSTALLATION:
   Pump Type, Make, Serial No.: ____________________________ Capacity: _______ gpm
   Motor type, H.P., Voltage, rpm: ____________________________
   Depth of Pump Intake Setting ______ ft. below ______, which elevation is _______ ft.
   Depth to bottom of airline ______ ft. below ______, which elevation is _______ ft.
   Pumping Head is ______ ft. Type of flow meter: ________ which measures in ______

24. As-built drawings attached?  Yes  No

25. Other remarks/comments: (See below)

Pump Installation Contractor (print) ____________________________ C-57 Lic. No. ____________________________
Signature ____________________________ Date ____________________________

Applicant (print) ____________________________
Signature ____________________________ Date ____________________________

8.(cont’d)  DRILLER’S LOG (cont’d):

<table>
<thead>
<tr>
<th>Dates</th>
<th>Water Level</th>
<th>Rock Description, Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>to</td>
<td>(ft.)</td>
<td></td>
</tr>
<tr>
<td>to</td>
<td>(ft.)</td>
<td></td>
</tr>
<tr>
<td>to</td>
<td>(ft.)</td>
<td></td>
</tr>
<tr>
<td>to</td>
<td>(ft.)</td>
<td></td>
</tr>
<tr>
<td>to</td>
<td>(ft.)</td>
<td></td>
</tr>
<tr>
<td>to</td>
<td>(ft.)</td>
<td></td>
</tr>
<tr>
<td>to</td>
<td>(ft.)</td>
<td></td>
</tr>
</tbody>
</table>

19. 25. Remarks: ____________________________________________________________________

__________________________________________________________________________________
Pump Test of the Main Pool Well, State No. 4959-06, August 29 to 30, 1996

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Temperature (°F)</th>
<th>Conductivity (µhos)</th>
<th>Salinity (°F)</th>
<th>Flowrate (MG/L)</th>
<th>Chlorides (MG/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/29</td>
<td>11:25</td>
<td>77</td>
<td>6500</td>
<td>24.64</td>
<td>3.572</td>
<td>1890</td>
</tr>
<tr>
<td></td>
<td>17:28</td>
<td>77</td>
<td>6389</td>
<td>24.27</td>
<td>3.536</td>
<td>1710</td>
</tr>
<tr>
<td></td>
<td>23:23</td>
<td>77</td>
<td>5995</td>
<td>24.22</td>
<td>3.307</td>
<td>1670</td>
</tr>
<tr>
<td>8/30</td>
<td>05:28</td>
<td>77</td>
<td>6345</td>
<td>24.23</td>
<td>3.513</td>
<td>1720</td>
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<tr>
<td></td>
<td>11:25</td>
<td>77</td>
<td>5942</td>
<td>24.16</td>
<td>3.280</td>
<td>1690</td>
</tr>
</tbody>
</table>

Pump Test of the Beach Pool Well, State No. 4959-05, September 13 to 14, 1996

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Temperature (°F)</th>
<th>Conductivity (µhos)</th>
<th>Salinity (°F)</th>
<th>Flowrate (MG/L)</th>
<th>Chlorides (MG/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/13</td>
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<td>77</td>
<td>6281</td>
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</tr>
<tr>
<td></td>
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<td>77</td>
<td>6270</td>
<td>24.25</td>
<td>3.467</td>
<td>1825</td>
</tr>
<tr>
<td>9/14</td>
<td>05:04</td>
<td>77</td>
<td>6279</td>
<td>24.27</td>
<td>3.471</td>
<td>1830</td>
</tr>
<tr>
<td></td>
<td>11:04</td>
<td>77</td>
<td>6277</td>
<td>24.27</td>
<td>3.470</td>
<td>1835</td>
</tr>
<tr>
<td></td>
<td>17:04</td>
<td>77</td>
<td>6278</td>
<td>24.28</td>
<td>3.469</td>
<td>1830</td>
</tr>
</tbody>
</table>

Pump Test of the Palm Grove Well, State No. 4959-07, September 16 to 17, 1996

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Temperature (°F)</th>
<th>Conductivity (µhos)</th>
<th>Salinity (°F)</th>
<th>Flowrate (MG/L)</th>
<th>Chlorides (MG/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/16</td>
<td>11:49</td>
<td>77</td>
<td>5761</td>
<td>24.34</td>
<td>3.161</td>
<td>1630</td>
</tr>
<tr>
<td></td>
<td>17:49</td>
<td>77</td>
<td>5741</td>
<td>24.50</td>
<td>3.138</td>
<td>1630</td>
</tr>
<tr>
<td></td>
<td>23:49</td>
<td>77</td>
<td>5724</td>
<td>24.46</td>
<td>3.131</td>
<td>1650</td>
</tr>
<tr>
<td>9/17</td>
<td>05:49</td>
<td>77</td>
<td>5735</td>
<td>24.43</td>
<td>3.140</td>
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<td>77</td>
<td>5730</td>
<td>24.43</td>
<td>3.137</td>
<td>1630</td>
</tr>
</tbody>
</table>
Transmittal Memorandum

To: Commission on Water Resource Management
From: John Mansour
Date: September 25, 1996
Re: Certification of Wells
Four Seasons Resort at Hualalai

****************************************

Attached please find the Well Completion Reports for the following wells:

- State Well No. 4959-05 Beach Pool Well
- State Well No. 4959-06 Main Pool Well
- State Well No. 4959-07 Palm Grove Pool

Thank you and should you have any questions regarding the enclosed please feel free to contact me.

jw

cc: L. Treweek
    G. Fukumitsu
September 11, 1996

Mr. Greg Fukumitsu
Tom Nance Water Resources
680 Ala Moana, 1st Floor
Honolulu, Hawaii 96813

Mr. Fukumitsu:

Subject: Certification of Wells
Four Seasons Resort at Hualalai
At Kaupulehu, North Kona, Island of Hawaii

The undersigned hereby certifies that the following elevations were measured, under the direction of Groak Design, Inc., at the subject site:

1. Well Site at Fitness Center: Top of Flange = 13.84 ft.
2. Well Site at Palm Pool: Top of Flange = 3.79 ft.
   Finish Floor = 3.13 ft.
3. Well Site at Beach Pool: Top of Flange = 4.06 ft.
   Finish Floor = 3.33 ft.
4. Well Site at Main Pool: Top of Flange = 4.40 ft.
   Finish Floor = 4.00 ft.

Robert K. Y. Lee
Licensed Professional Surveyor
Certification No. 5075
WELL COMPLETION REPORT

State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

WELL COMPLETION REPORT 9/25/96 95-10
3/20/96 WCR Form 9-20-96

Part I.
WELL CONSTRUCTION REPORT

1. State Well No.: 4959-07
Well Name: Palm Grove Well
Island: Hawaii

2. Location/Address: Kaupulehu, Hawaii
Tax Map Key: 7-2-03:4

3. Drilling Company: Roscoe Moss Hawaii, Inc.

4. Name of driller who performed work:

5. Type of rig/construction: 235 CAT Excavator w/Hammer

6. Date(s) Well Construction and pump tests (if any) completed: Pump (9-16,17,1996), Well Completed September 20, 1996

7. GROUND ELEVATION (referred to mean sea level, msl): 3.13 (finish floor)
Well Bench Mark (description/location): Elevation(msl): _____ ft.

8. DRILLER'S LOG: Please attach geologic log (if available or if required by permit)

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, Dates, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Vesicular Basalt-Dense</td>
</tr>
<tr>
<td>to 8.67</td>
<td></td>
</tr>
<tr>
<td>8.67</td>
<td></td>
</tr>
</tbody>
</table>

9. Total depth of well below ground: 8.67 ft.

10. Hole size:

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 in.</td>
<td>0</td>
</tr>
<tr>
<td>inch dia. from</td>
<td>ft. to 8.67 ft. below ground</td>
</tr>
</tbody>
</table>

11. Casing installed:

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 in.</td>
<td>0.28</td>
</tr>
<tr>
<td>I.D.</td>
<td>ft. to 8.67 ft. below ground</td>
</tr>
</tbody>
</table>

12. Casing Material/Slot Size:
PVC, 0.02" Slot

13. Initial water level: 2 ft. below ground.

14. Initial chloride: ppm

15. Initial temperature: °F

16. PUMPING TESTS: Reference Point (R.P.) used:

<table>
<thead>
<tr>
<th>Step-Down Test Date</th>
<th>Top Flange</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>which elevation is 3.79 ft.</td>
</tr>
</tbody>
</table>

17. Aquifer Pump Test Procedures data & graphs (15/90 Form) attached? Yes No

18. As-built drawings attached? Yes No

19. Other remarks/comments: (On back of this form)

Well Drilling Contractor (print) Roscoe Moss Hawaii, Inc. C-57 Lic. No. C-16437

Signature William C. Moss Date 9/20/96

Surveyor (print) See Attached Certification

Signature Date

Applicant (print) John Mansour

Signature Date 9/25/96
PART II. (PERMANENT) PUMP INSTALLATION REPORT

20. Pump Installation Company: ________________________________

21. Name of person performing work: __________________________

22. Date Pump Installation Completed: _________________________

23. PUMP INSTALLATION:
   Pump Type, Make, Serial No.: ________________________________
   Capacity: _______ gpm
   Motor type, H.P., Voltage, rpm: ______________________________
   Depth of Pump Intake Setting _______ ft. below __________, which elevation is _______ ft.
   Depth to bottom of airl ine _______ ft. below __________, which elevation is _______ ft.
   Pumping Head is _______ ft. Type of flow meter: ______________ which measures in ______.

24. As-built drawings attached attached? _ Yes _ No

25. Other remarks/comments: (See below)

   Pump Installation Contractor (print) _________________________ C-57 Lic. No. __________
   Signature ______________________________________ Date ________

   Applicant (print) ______________________________
   Signature ______________________________________ Date ________

8.(cont’d) DRILLER’S LOG (cont’d):

<table>
<thead>
<tr>
<th>Water Level Depth (ft.)</th>
<th>Rock Description, Remarks, Dates</th>
<th>Water Level Depth (ft.)</th>
<th>Rock Description, Remarks, Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. & 25. Remarks:

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
PALM GROVE WELL, STATE NO. 4959-07
PG91896.PRN

PUMP TEST AT 51 GPM

elevation (feet)

time (days)

-1
-0.5
0
0.5
1
1.5
2
2.5
3

259 259.5 260 260.5 261 261.5 262 262.5 263

SEP 15
SEP 16
SEP 17
SEP 18
### Pump Test of the Main Pool Well, State No. 4959-06, August 29 to 30, 1996

<table>
<thead>
<tr>
<th>Sample Date</th>
<th>Time</th>
<th>Temperature (°F)</th>
<th>Conductivity (μmhos)</th>
<th>Salinity (°F)</th>
<th>Flowrate Meter Ave. GPM</th>
<th>Chlorides (MG/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/29</td>
<td>11:25</td>
<td>77</td>
<td>6500</td>
<td>24.64</td>
<td>140,500</td>
<td>1710</td>
</tr>
<tr>
<td></td>
<td>17:28</td>
<td>77</td>
<td>6389</td>
<td>24.27</td>
<td>174,100</td>
<td>1670</td>
</tr>
<tr>
<td></td>
<td>23:23</td>
<td>77</td>
<td>5995</td>
<td>24.22</td>
<td>208,100</td>
<td>1720</td>
</tr>
<tr>
<td>8/30</td>
<td>05:28</td>
<td>77</td>
<td>6345</td>
<td>24.23</td>
<td>241,200</td>
<td>1690</td>
</tr>
<tr>
<td></td>
<td>11:25</td>
<td>77</td>
<td>5942</td>
<td>24.16</td>
<td>274,400</td>
<td>1720</td>
</tr>
</tbody>
</table>

### Pump Test of the Beach Pool Well, State No. 4959-05, September 13 to 14, 1996

<table>
<thead>
<tr>
<th>Sample Date</th>
<th>Time</th>
<th>Temperature (°F)</th>
<th>Conductivity (μmhos)</th>
<th>Salinity (°F)</th>
<th>Flowrate Meter Ave. GPM</th>
<th>Chlorides (MG/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/13</td>
<td>17:04</td>
<td>77</td>
<td>6281</td>
<td>24.25</td>
<td>1,215,000</td>
<td>1830</td>
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<tr>
<td></td>
<td>23:04</td>
<td>77</td>
<td>6270</td>
<td>24.25</td>
<td>1,277,800</td>
<td>1825</td>
</tr>
<tr>
<td>9/14</td>
<td>05:04</td>
<td>77</td>
<td>6279</td>
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<td>1,340,600</td>
<td>1830</td>
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<tr>
<td></td>
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<td>1830</td>
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### Pump Test of the Palm Grove Well, State No. 4959-07, September 16 to 17, 1996

<table>
<thead>
<tr>
<th>Sample Date</th>
<th>Time</th>
<th>Temperature (°F)</th>
<th>Conductivity (μmhos)</th>
<th>Salinity (°F)</th>
<th>Flowrate Meter Ave. GPM</th>
<th>Chlorides (MG/L)</th>
</tr>
</thead>
<tbody>
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<td>11:49</td>
<td>77</td>
<td>5761</td>
<td>24.34</td>
<td>15,400</td>
<td>1630</td>
</tr>
<tr>
<td></td>
<td>17:49</td>
<td>77</td>
<td>5741</td>
<td>24.50</td>
<td>33,900</td>
<td>1630</td>
</tr>
<tr>
<td></td>
<td>23:49</td>
<td>77</td>
<td>5724</td>
<td>24.46</td>
<td>52,400</td>
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<tr>
<td>9/17</td>
<td>05:49</td>
<td>77</td>
<td>5735</td>
<td>24.43</td>
<td>70,900</td>
<td>1640</td>
</tr>
<tr>
<td></td>
<td>11:49</td>
<td>77</td>
<td>5730</td>
<td>24.43</td>
<td>89,400</td>
<td>1630</td>
</tr>
</tbody>
</table>
**State of Hawaii**
**COMMISSION ON WATER RESOURCE MANAGEMENT**
**Department of Land and Natural Resources**

**WELL COMPLETION REPORT**

(3/20/96 WCR Form)

Instructions: Please print or type and submit completed report within 30 days after well completion to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. An as-built drawing of the well and chemical analysis should also be submitted. For assistance call the Commission Regulation Branch at 587-0225, or 1-800-468-4644 Extension 70225.

1. **State Well No.**: 4959-06  
   **Well Name**: Main Pool Well  
   **Island**: Hawaii

2. **Location/Address**: Kaupulehu, Hawaii  
   **Tax Map Key**: 7-2-035

## PART I. WELL CONSTRUCTION REPORT

3. **Drilling Company**: Roscoe Moss Hawaii, Inc.
4. **Name of driller who performed work**: ____________________________
5. **Type of rig/construction**: 235 CAT Excavator w/Hammer
6. **Date(s) Well Construction and pump tests (if any) completed**: Pump (8-29, 30, 1996), September 20, 1996
7. **GROUND ELEVATION (referenced to mean sea level, msl)**: 4.00 (Finish Floor)  
   **Well Benchmark (description/location)**: Elevation (msl): ________ ft.

8. **DRILLER'S LOG**: Please attach geologic log (if available or if required by permit)

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, Dates, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 10.5</td>
<td>Vesicular Basalt-Dense</td>
</tr>
</tbody>
</table>

(If more space is needed, continue on back.)

9. **Total depth of well below ground**: 10.5 ft.
10. **Hole size**: 12 inch dia. from 0 ft. to 10.5 ft. below ground

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, Dates, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 10.5</td>
<td></td>
</tr>
</tbody>
</table>

11. **Casing installed**: 6 in. I.D. x 0.28 in. wall solid section to 3 ft. below ground  
    6 in. I.D. x 0.28 in. wall perforated section to 10.5 ft. below ground

| Casing Material/Slot Size: | PVC, 0.02" Slot |

12. **Annulus**: Grouted from 0 ft. below ground to 3 ft. below ground  
    Gravel packed from 3 ft. below ground to 10.5 ft. below ground

13. **Initial water level**: 3 ft. below ground  
    **Date and time of measurement**: ____________________________
14. **Initial chloride**: ______ ppm  
    **Date and time of sampling**: ____________________________
15. **Initial temperature**: ______ °F  
    **Date and time of measurement**: ____________________________

16. **PUMPING TESTS**: Reference Point (R.P.) used: Top Flange, which elevation is 4.40 ft.

   (1) Step-Drawdown Test Date  
   Start water level ______ ft. below R.P.  
   End water level ______ ft. below R.P.

   (2) Long-term Aquifer Test Date  
   Start water level ______ ft. below R.P.  
   End water level ______ ft. below R.P.

17. **Aquifer Pump Test Procedures data & graphs (1/9/96 LTAT Form)** attached? _Yes_ _No_
18. **As-built drawings attached**? _Yes_ _No_
19. **Other remarks/comments**: (On back of this form)

**Well Drilling Contractor (print)** Roscoe Moss Hawaii, Inc.  
**C-57 Lic. No.**: C-16437  
**Signature**: ____________________________  
**Date**: 9/20/96

**Surveyor (print)** See Attached Certification  
**License No.**

**Signature**: ____________________________  
**Date**: ____________________________

**Applicant (print)** John Mansour  
**Signature**: ____________________________  
**Date**: 9/28/96
PART II. (PERMANENT) PUMP INSTALLATION REPORT

20. Pump Installation Company: ________________________________

21. Name of person performing work: ____________________________

22. Date Pump Installation Completed: ____________________________

23. PUMP INSTALLATION:
   Pump Type, Make, Serial No.: ________________________________ Capacity: ______ gpm
   Motor type, H.P., Voltage, rpm: ______________________________
   Depth of Pump Intake Setting _______ ft. below ________, which elevation is _______ ft.
   Depth to bottom of airline _______ ft. below ________, which elevation is _______ ft.
   Pumping Head is _______ ft. Type of flow meter: _______ which measures in _______

24. As-built drawings attached? Yes No

25. Other remarks/comments: (See below)

Pump Installation Contractor (print) ____________________________ C-57 Lic. No. __________
Signature __________________________________ Date __________________
Applicant (print) __________________________________________
Signature __________________________________ Date __________________

8.(cont'd) DRILLER'S LOG (cont'd):

<table>
<thead>
<tr>
<th>Water Level Dates (ft.)</th>
<th>Depth (ft.)</th>
<th>Rock Description, Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>____________ to ____________</td>
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<td>____________ to ____________</td>
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<td>__________________________</td>
</tr>
</tbody>
</table>

19. & 25. Remarks:
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
MAIN POOL WELL, STATE NO. 4959-06
MP91896.PRN

PUMP TEST AT 93 GPM
Pump Test of the Main Pool Well, State No. 4959-06, August 29 to 30, 1996

<table>
<thead>
<tr>
<th>Sample</th>
<th>Temperature (°F)</th>
<th>Conductivity (µhmhos)</th>
<th>Salinity (PPT)</th>
<th>Flowrate (GPM)</th>
<th>Chlorides (MG/L)</th>
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<tr>
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<td>174,100</td>
<td>1710</td>
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<tr>
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<td>23:23</td>
<td>5995</td>
<td>24.22</td>
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</tr>
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<td>05:28</td>
<td>6345</td>
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<td>241,200</td>
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<tr>
<td></td>
<td>11:25</td>
<td>5942</td>
<td>24.16</td>
<td>274,400</td>
<td>1690</td>
</tr>
</tbody>
</table>

Pump Test of the Beach Pool Well, State No. 4959-05, September 13 to 14, 1996

<table>
<thead>
<tr>
<th>Sample</th>
<th>Temperature (°F)</th>
<th>Conductivity (µhmhos)</th>
<th>Salinity (PPT)</th>
<th>Flowrate (GPM)</th>
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<td>1,277,800</td>
<td>1825</td>
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<td>1830</td>
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<td>24.27</td>
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<td>6278</td>
<td>24.28</td>
<td>1,466,200</td>
<td>1830</td>
</tr>
</tbody>
</table>

Pump Test of the Palm Grove Well, State No. 4959-07, September 16 to 17, 1996

<table>
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<tr>
<th>Sample</th>
<th>Temperature (°F)</th>
<th>Conductivity (µhmhos)</th>
<th>Salinity (PPT)</th>
<th>Flowrate (GPM)</th>
<th>Chlorides (MG/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/16</td>
<td>11:49</td>
<td>5761</td>
<td>24.34</td>
<td>15,400</td>
<td>1630</td>
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<tr>
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<td>17:49</td>
<td>5741</td>
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<td>52,400</td>
<td>1650</td>
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<td>05:49</td>
<td>5735</td>
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<td>70,900</td>
<td>1640</td>
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<tr>
<td></td>
<td>11:49</td>
<td>5730</td>
<td>24.43</td>
<td>89,400</td>
<td>1630</td>
</tr>
</tbody>
</table>
September 12, 1996

Ms. Rae M. Loui
Deputy Director
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

Dear Ms. Loui:

Well Pump Installation Reports For
Kaupulehu Saltwater Well Nos. 4959-01 to -04

This letter and its enclosure responds to your August 27, 1996 letter requesting information prior to accepting the well completion reports for Wells 4959-01 to -04. The following will respond to each of the items in your letter:

1. **Delay in Filing the Report.** The pump installation report was filled out by Roscoe Moss Hawaii, the contractor for the pumps of these wells. Pump installation dates on the form were the dates the pumps were actually installed in the wells. However, electric power and discharge piping were not yet available. Actual dates that the pumps were operational and initial shakedown testing could be done were May 3, 1996 for Wells 4959-01 and -02 and April 3, 1996 for Wells 4959-03 and -04. The reports were filed in July 1996, admittedly more that 30 days after the actual completion dates. It simply took that long to get the forms filled out and signed by the contractor. We regret that delay.

2. **Elevations By a Licensed Surveyor.** Surveyed elevations by a licensed surveyor are attached with this letter. Unfortunately, they were not provided at the time the completion report was filed.

3. **Pump Capacities.** A last minute decision was made to increase pump capacities to 1100 GPM to achieve better clarity in the water features. In our haste to get the pumps in...
place and operational, we overlooked the need to ask for approval for the change from the Commission. If filing amended permits for the larger capacity pumps is appropriate, please let us know and we will comply. Ironically, the pumps supplied by Roscoe Moss are actually only producing 800 to 850 GPM, significantly less than their nominally rated capacities.

If you have any questions or need additional information please do not hesitate to contact me. Thank you for your attention to this matter.

Sincerely,
Hualalai Development Company

John Mansour
Project Manager

JM/jw

cc: R. Harris
    G. Fukumitsu

Enclosure
September 11, 1996

Mr. Greg Fukumitsu
Tom Nance Water Resources
680 Ala Moana 1st Floor
Honolulu, Hawaii 96813

Mr. Fukumitsu:

Subject: Certification of Salt Water Wells
Four Seasons Resort at Hualalai
At Kaupulehu, North Kona, Island of Hawaii

The undersigned hereby certifies that the following elevations were measured on August 30, 1996:

   Finish Floor = 2.87 ft.

2. Salt Water Well No. 2 (4959-02): Top of Flange = 3.33 ft.
   Finish Floor = 2.89 ft.

   Finish Floor = 3.70 ft.

   Finish Floor = 5.03 ft.

Robert K. Y. Lee
Licensed Professional Surveyor
Certificate No. 5075
Mr. John Mansour  
Hualalai Development Co.  
P.O. Box 1119  
Kailua-Koan, HI 96745

Dear Mr. Mansour:

Well Completion Report for Well Nos. 4959-01 to 04

We have received your pump installation portion of the well completion report for the Kaupulehu Salt Water Wells (Well Nos. 4959-01 to 04). However, matters which must be addressed before we accept your entire report as complete are as follows:

1. Explanation for exceeding the 30 day reporting requirement for pump installation work, as per permit condition 4.

2. Elevations must be established by a Hawaii-licensed surveyor, as per permit condition 4.b.

3. Explanation for the installation of 1100 gpm capacity pumps when only 850 gpm, or less, was approved, as per permit condition 2.

Please respond to the above item(s) within thirty (30) days of this letter's date. Failure to do so may result in fines of up to $1000 per day to Hualalai Development Co.

If you have any questions, please contact Roy Hardy of the Commission staff at 587-0274 or toll-free at 974-4000, extension 70274.

Sincerely,

[Signature]

For: RAE M. LOUI  
Deputy Director

RH:ss

c: Greg Fukumitsu, TNWRE  
Roscoe Moss, Inc.
PART II.  (PERMANENT) PUMP INSTALLATION REPORT

20. Pump Installation Company:  ROSCOE MOSS HAWAII, INC.

21. Name of person performing work:  DERRICK MOREIRA

22. Date Pump Installation Completed:  1-24-96

23. PUMP INSTALLATION:
   Pump Type, Make, Serial No.: SUB/CROWN/1105
   Capacity:  1100 gpm
   Motor type, H.P., Voltage, rpm: SUB/15/460/1750
   Depth of Pump Intake Setting:  24 ft. below BASE, which elevation is + 6.5 ft
   Depth to bottom of airline:  22 ft. below BASE, which elevation is + 6.5 ft
   Pumping Head is:  40 ft. Type of flow meter:   MCCROMETER  which measures in  GPM

24. As-built drawings attached?  Yes X No

25. Other remarks/comments:  (See below)

Pump Installation Contractor (print)  ROSCOE MOSS HI, INC.  C-57 Lic. No.  C-16437
Signature  
GLEN R. DAVIS  Date  7/10/96

Applicant (print)  JOHN MANSOUR
Signature  
Date  7/18/96

8.(cont'd)  DRILLER'S LOG (cont'd):

<table>
<thead>
<tr>
<th>Water Level Dates (ft.)</th>
<th>Depth (ft.)</th>
<th>Rock Description, Remarks,</th>
</tr>
</thead>
<tbody>
<tr>
<td>___________ to ___________</td>
<td>___________</td>
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<td>___________ to ___________</td>
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<tr>
<td>___________ to ___________</td>
<td>___________</td>
<td>___________________________</td>
</tr>
</tbody>
</table>

19. & 25. Remarks:  WELL 4999-04 SALT WATER WELL #4

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
WELL COMPLETION REPORT

State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

WELL COMPLETION REPORT

(W) Well Construction ( ) (Permanent) Pump Installation

Instructions: Please print or type and submit completed report within 30 days after well completion to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. An as-built drawing of the well and chemical analysis should also be submitted. For assistance call the Commission Regulation Branch at 587-0225, or 1-800-468-4644 Extension 70225.

1. State Well No.: 4959-04
   Well Name: SALT WATER WELL NO. 4
   Island: HAWAII

2. Location/Address: HUALALAI DEVELOPMENT

PART I.
WELL CONSTRUCTION REPORT

3. Drilling Company: ________________________________

4. Name of driller who performed work: ________________________________

5. Type of rig/construction: ________________________________

6. Date(s) Well Construction and pump tests (if any) completed: ________________________________

7. GROUND ELEVATION (referenced to mean sea level, msl): ________________________________ ft.

   Well Bench Mark (description/location): ________________________________ Elevation(msl): ________________________________ ft.

8. DRILLER'S LOG: Please attach geologic log (if available or if required by permit)

   Depths (ft.) Rock Description, Water Level, Dates, etc. Depths (ft.) Rock Description, Water Level, Dates, etc.

   to ________________________________ to ________________________________

   to ________________________________ to ________________________________

   (If more space is needed, continue on back.)

9. Total depth of well below ground: ________________________________ ft.

10. Hole size: ________________________________ inch dia. from ________________________________ ft. to ________________________________ ft. below ground

    ________________________________ inch dia. from ________________________________ ft. to ________________________________ ft. below ground

    ________________________________ inch dia. from ________________________________ ft. to ________________________________ ft. below ground

11. Casing installed: ________________________________ in. I.D. x ________________________________ in. wall solid section to ________________________________ ft. below ground

    ________________________________ in. I.D. x ________________________________ in. wall perforated section to ________________________________ ft. below ground

    Casing Material/Slot Size: ________________________________

12. Annulus: Grouted from ________________________________ ft. below ground to ________________________________ ft. below ground

    Gravel packed from ________________________________ ft. below ground to ________________________________ ft. below ground

13. Initial water level: ________________________________ ft. below ground.

14. Initial chloride: ________________________________ ppm

15. Initial temperature: ________________________________ °F

16. PUMPING TESTS: Reference Point (R.P.) used: ________________________________ which elevation is ________________________________ ft.

   (1) Step-Drawdown Test Date ________________________________

   Start water level ________________________________ ft. below R.P.

   End water level ________________________________ ft. below R.P.

   (2) Long-term Aquifer Test Date ________________________________

   Start water level ________________________________ ft. below R.P.

   End water level ________________________________ ft. below R.P.

17. Aquifer Pump Test Procedures data & graphs (1/9/96 LTAT Form) attached? _Yes _No

18. As-built drawings attached attached? _Yes _No

19. Other remarks/comments: (On back of this form)

Well Drilling Contractor (print) ________________________________ C-57 Lic. No. ________________________________

Signature ________________________________ Date ________________________________

Surveyor (print) ________________________________ Lic. No. ________________________________

Signature ________________________________ Date ________________________________

Applicant (print) ________________________________

Signature ________________________________ Date ________________________________
PART II. (PERMANENT) PUMP INSTALLATION REPORT

20. Pump Installation Company: ROSCOE MOSS HAWAII, INC.
21. Name of person performing work: DERRICK MOREIRA
22. Date Pump Installation Completed: 1-23-96
23. PUMP INSTALLATION:

<table>
<thead>
<tr>
<th>Pump Type, Make, Serial No.:</th>
<th>SUB/CROWN/1106</th>
<th>Capacity: 1100 gpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor type, H.P., Voltage, rpm:</td>
<td>SUB/15/460/1750</td>
<td></td>
</tr>
<tr>
<td>Depth of Pump Intake Setting</td>
<td>24 ft. below BASE, which elevation is + 6.5 ft</td>
<td></td>
</tr>
<tr>
<td>Depth to bottom of airline</td>
<td>22 ft. below BASE, which elevation is + 6.5 ft</td>
<td></td>
</tr>
<tr>
<td>Pumping Head is</td>
<td>40 ft. Type of flow meter: MCROMETER which measures in GPM</td>
<td></td>
</tr>
</tbody>
</table>

24. As-built drawings attached attached? Yes [X] No
25. Other remarks/comments: (See below)

<table>
<thead>
<tr>
<th>Pump Installation Contractor (print)</th>
<th>ROSCOE MOSS HI, INC. C-57 Lic. No.</th>
<th>C-16437</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>GLEN R. DAVIS</td>
<td>Date</td>
</tr>
<tr>
<td>Applicant (print)</td>
<td>JOHN MANSOUR</td>
<td>Date</td>
</tr>
</tbody>
</table>

8. (cont'd) DRILLER'S LOG (cont'd):

<table>
<thead>
<tr>
<th>Water Level Dates</th>
<th>to</th>
<th>Depth (ft.)</th>
<th>Rock Description, Remarks,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

19. & 25. Remarks: WEL 4959-03 SALT WATER WELL #3
## WELL COMPLETION REPORT

(Check Appropriate Box)  □ Well Construction  ☑ (Permanent) Pump Installation

Instructions: Please print or type and submit completed report within 30 days after well completion to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. An as-built drawing of the well and chemical analysis should also be submitted. For assistance call the Commission Regulation Branch at 587-0225, or 1-800-468-4644 Extension 70225.

<table>
<thead>
<tr>
<th>Part I. WELL CONSTRUCTION REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. State Well No.: 4959-03</td>
</tr>
<tr>
<td>2. Location/Address: HUALALAI DEVELOPMENT</td>
</tr>
</tbody>
</table>

### Part I.

#### WELL CONSTRUCTION REPORT

3. Drilling Company: 

4. Name of driller who performed work: 

5. Type of rig/ construction: 

6. Date(s) Well Construction and pump tests (if any) completed: 

7. GROUND ELEVATION (referenced to mean sea level, msl): 
   - Well Bench Mark (description/location):  
   - Elevation(msl): 

8. DRILLER'S LOG: Please attach geologic log (if available or if required by permit)
   - Depths (ft.)  Rock Description, Water Level, Dates, etc.
   - to 
   - to 
   - to 
   (If more space is needed, continue on back.)

9. Total depth of well below ground: ft.

10. Hole size:
    - inch dia. from ft. to ft. below ground
    - inch dia. from ft. to ft. below ground
    - inch dia. from ft. to ft. below ground

11. Casing installed:
    - in. I.D. x in. wall solid section to ft. below ground
    - in. I.D. x in. wall perforated section to ft. below ground
    - Casing Material/Slot Size: 

12. Annulus:
    - Grouted from ft. below ground to ft. below ground
    - Gravel packed from ft. below ground to ft. below ground

13. Initial water level: ft. below ground.  Date and time of measurement: 

14. Initial chloride: ppm  Date and time of sampling: 

15. Initial temperature: °F  Date and time of measurement: 

16. PUMPING TESTS: Reference Point (R.P.) used: , which elevation is ft.
   (1) Step-Drawdown Test Date 
   - Start water level ft. below R.P.
   - End water level ft. below R.P.
   (2) Long-term Aquifer Test Date  
   - Start water level ft. below R.P.
   - End water level ft. below R.P.

17. Aquifer Pump Test Procedures data & graphs (1/9/96 LTAT Form) attached?  _Yes_ _No

18. As-built drawings attached?  _Yes_ _No

19. Other remarks/comments: (On back of this form)

---

Well Drilling Contractor (print) C-57 Lic. No. 
Signature ___________________________ Date __________

Surveyor (print)  Lic. No. 
Signature ___________________________ Date __________

Applicant (print)  
Signature ___________________________ Date __________
PART II. (PERMANENT) PUMP INSTALLATION REPORT

20. Pump Installation Company: **ROSCOE MOSS HAWAII, INC.**

21. Name of person performing work: **DERRICK MOREIRA**

22. Date Pump Installation Completed: **2-14-96**

23. PUMP INSTALLATION:
   - Pump Type, Make, Serial No.: **SUB/CROWN/1104**
   - Capacity: **1100 gpm**
   - Motor type, H.P., Voltage, rpm: **SUB/15/208/1750**
   - Depth of Pump Intake Setting: **24 ft. below BASE**, which elevation is **+ 6.5 ft**.
   - Depth to bottom of airline: **22 ft. below BASE**, which elevation is **+ 6.5 ft**.
   - Pumping Head is **40 ft**. Type of flow meter: **MCCROMETER** which measures in **GPM**.

24. As-built drawings attached? **Yes**

25. Other remarks/comments: (See below)

<table>
<thead>
<tr>
<th>Water Level Dates (ft.)</th>
<th>Water Level Dates (ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>__ to __</td>
<td>__ to __</td>
</tr>
<tr>
<td>__ to __</td>
<td>__ to __</td>
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<td>__ to __</td>
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<td>__ to __</td>
<td>__ to __</td>
</tr>
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<td>__ to __</td>
<td>__ to __</td>
</tr>
<tr>
<td>__ to __</td>
<td>__ to __</td>
</tr>
</tbody>
</table>

19. & 25. Remarks: **Well 4959-02 SALT WATER WELL #2**
WELL COMPLETION REPORT

(Check Appropriate Box)                      □ Well Construction □ (Permanent) Pump Installation

Instructions: Please print or type and submit completed report within 30 days after well completion to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. An as-built drawing of the well and chemical analysis should also be submitted. For assistance call the Commission Regulation Branch at 587-0225, or 1-800-468-4644 Extension 70225.

1. State Well No.: 4959-02    Well Name: SALT WATER WELL NO. 2

2. Location/Address: HUALALAI DEVELOPMENT

PART I.

WELL CONSTRUCTION REPORT

3. Drilling Company:

4. Name of driller who performed work:

5. Type of rig/construction:

6. Date(s) Well Construction and pump tests (if any) completed:

7. GROUND ELEVATION (referenced to mean sea level, msl): ______ ft.
   Well Bench Mark (description/location): ______ Elevation (msl): ______ ft.

8. DRILLER'S LOG: Please attach geologic log (if available or if required by permit)

   Depths (ft.) Rock Description, Water Level, Dates, etc.
   _______________________________ to _______________________________
   _______________________________ to _______________________________
   _______________________________ to _______________________________
   _______________________________ to _______________________________

   (If more space is needed, continue on back.)

9. Total depth of well below ground: ______ ft.

10. Hole size:
    ______ inch dia. from ______ ft. to ______ ft. below ground
    ______ inch dia. from ______ ft. to ______ ft. below ground
    ______ inch dia. from ______ ft. to ______ ft. below ground

11. Casing installed:
    ______ in. I.D. x ______ in. wall solid section to ______ ft. below ground
    ______ in. I.D. x ______ in. wall perforated section to ______ ft. below ground

12. Annulus:
    Grouted from ______ ft. below ground to ______ ft. below ground
    Gravel packed from ______ ft. below ground to ______ ft. below ground

13. Initial water level: ______ ft. below ground.
    Date and time of measurement: _______________________________

14. Initial chloride: ______ ppm
    Date and time of sampling: _______________________________

15. Initial temperature: ______°F
    Date and time of measurement: _______________________________

16. PUMPING TESTS: Reference Point (R.P.) used: ______, which elevation is ______ ft.
    (1) Step-Drawdown Test Date ________________
    Start water level ______ ft. below R.P.
    End water level ______ ft. below R.P.
    (2) Long-term Aquifer Test Date ________________
    Start water level ______ ft. below R.P.
    End water level ______ ft. below R.P.

17. Aquifer Pump Test Procedures data & graphs (1/9/96 LTAT Form) attached? _Yes _No

18. As-built drawings attached? _Yes _No

19. Other remarks/comments: (On back of this form)

Well Drilling Contractor (print) C-57 Lic. No.
Signature ___________________________ Date ___________________________

Surveyor (print) Lic. No.
Signature ___________________________ Date ___________________________

Applicant (print)
Signature ___________________________ Date ___________________________
PART II. (PERMANENT) PUMP INSTALLATION REPORT

20. Pump Installation Company: ROSCOE MOSS HAWAII, INC.

21. Name of person performing work: DERRICK MOREIRA

22. Date Pump Installation Completed: 2-14-96

23. PUMP INSTALLATION:
   Pump Type, Make, Serial No.: SUB/CROWN/1103 Capacity: 1100 gpm
   Motor type, H.P., Voltage, rpm: SUB/15/208/1750
   Depth of Pump Intake Setting 24 ft. below BASE, which elevation is + 6.5 ft.
   Depth to bottom of airline 22 ft. below BASE, which elevation is + 6.5 ft.
   Pumping Head is 40 ft. Type of flow meter: MCCROMETER which measures in GPM

24. As-built drawings attached? Yes ☑ No

25. Other remarks/comments: (See below)

Pump Installation Contractor (print) ROSCOE MOSS HI, INC. C-57 Lic. No. C-16437
Signature: GLEN R. DAVIS Date: 7/10/96
Applicant (print) JOHN MANSOUR Date: 7/18/96

8.(cont'd) DRILLER'S LOG (cont'd):

<table>
<thead>
<tr>
<th>Water Level Dates</th>
<th>Depth (ft.)</th>
<th>Rock Description, Remarks</th>
<th>Water Level Dates</th>
<th>Depth (ft.)</th>
<th>Rock Description, Remarks</th>
</tr>
</thead>
<tbody>
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<td>to</td>
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</tr>
</tbody>
</table>

19 & 25. Remarks: WELL 4959-01 SALT WATER WELL #1
WELL COMPLETION REPORT

(3/20/96 WCR Form)

Instructions: Please print or type and submit completed report within 30 days after well completion to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. An as-built drawing of the well and chemical analysis should also be submitted. For assistance call the Commission Regulation Branch at 587-0225, or 1-800-468-4644 Extension 70225.

1. State Well No.: 4959-01 Well Name: SALT WATER WELL NO. 1 Island: HAWAII
2. Location/Address: HUALALAI DEVELOPMENT Tax Map Key:

### PART I. WELL CONSTRUCTION REPORT

3. Drilling Company: 
4. Name of driller who performed work: 
5. Type of rig/construction: 
6. Date(s) Well Construction and pump tests (if any) completed: 
7. GROUND ELEVATION (referenced to mean sea level, msl): ______ ft. 
   Well Bench Mark (description/location): _______ Elevation(msl): ______ ft.
8. DRILLER'S LOG: Please attach geologic log (if available or if required by permit)
   Depths (ft.) Rock Description, Water Level, Dates, etc.  Depths (ft.) Rock Description, Water Level, Dates, etc.
   ___________ to ___________  __________________________   ___________ to ___________  __________________________
   (If more space is needed, continue on back)
9. Total depth of well below ground: _______ ft.
10. Hole size: ___________ inch dia. from ___________ ft. to ___________ ft. below ground
    ___________ inch dia. from ___________ ft. to ___________ ft. below ground
    ___________ inch dia. from ___________ ft. to ___________ ft. below ground
11. Casing installed: ___________ in. I.D. x _______ in. wall solid section to _______ ft. below ground
    Casing Material/Slot Size:
    ___________ in. I.D. x _______ in. wall perforated section to _______ ft. below ground
12. Annulus: Grouted from _______ ft. below ground to _______ ft. below ground
    Gravel packed from _______ ft. below ground to _______ ft. below ground
13. Initial water level: _______ ft. below ground. Date and time of measurement: ________________
14. Initial chloride: _______ ppm Date and time of sampling: ________________
15. Initial temperature: _______ °F Date and time of measurement: ________________
16. PUMPING TESTS: Reference Point (R.P.) used: _______ ft. below ground, which elevation is _______ ft.
   (1) Step-Drawdown Test Date ________________  (2) Long-term Aquifer Test Date ________________
   Start water level _______ ft. below R.P.  Start water level _______ ft. below R.P.
   End water level _______ ft. below R.P.  End water level _______ ft. below R.P.
17. Aquifer Pump Test Procedures data & graphs (1/9/96 LTAT Form) attached? __ Yes __ No
18. As-built drawings attached attached? __ Yes __ No
19. Other remarks/comments: (On back of this form)

Well Drilling Contractor (print) C-57 Lic. No. ____________________________
Signature __________________________________________ Date ____________
Surveyor (print) ____________________________ Lic. No. ____________________________
Signature __________________________________________ Date ____________
Applicant (print) ____________________________
Signature __________________________________________ Date ____________
DATE: July 19, 1996

TO: Commission of Water Resource Management
Dept. of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

ATTENTION: Rae M. Loui

SUBJECT: Kaupulehu Salt Water Circulation Wells

We herewith transmit the following:

4 Originals Pump Installation Reports for Kaupulehu Salt Water Wells No. 1,2,3, and 4.
State Well Nos. 4559-01 to 04

Remarks:

We herewith transmit the above completed documents for your records.

Please feel free to call the undersigned if there are any questions regarding this matter.

Sincerely,
Tom Nance Water Resource Engineering

Greg Fukumitsu
### WELL COMPLETION REPORT

**State Well No. 4959-01**

**Well Name:** HUALALAI SALTWATER

**State:** HAWAII

**Location:** Address: Kealaulahele North Kona

**Tax Map Key:** 7-24-3/4 S 5

**Drilling or Pump Installation Contractor:** WAI ELE DRILLING & DEVELOPMENT

**Contractor’s C-57 License Number:** C-16563

**Name of Driller Who Performed Work:** JACK LINDERBerg

**Type of Rig/Construction:** ROTARY

**Date of Well Drilling Completion:** 12/6/95

**NOTE:** Report must be submitted within 30 days after this date.

### Ground Elevation (msl) 0 ft.
- Top of Drilling Platform (msl) 0 ft.
- Height of Drilling Platform above Ground surface 0 ft.

### Driller’s Log:

<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>Rock Description, Remarks, Dates</th>
<th>Water Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 40</td>
<td>mixed - soft with hard layers</td>
<td>4.5</td>
</tr>
</tbody>
</table>

(If more space is needed, continue on back.)

### TOTAL DEPTH OF WELL BELOW GROUND 40 ft.

### HOLE SIZE:
- 19 inch dia. from 0 ft. to 40 ft. below ground
- 12 in. I.D. x PVC in. wall solid section to 10 ft. below ground
- 12 in. I.D. x PVC in. wall perforated section to 40 ft. below ground

### Casing Installed:
- Type of Perforation:
  - Grount from ft. below ground to ft. below ground
  - Gravel packed from ft. below ground to ft. below ground

### Initial Water Level 4.5 ft. below ground.
- Date and time of measurement: 11/22/95

### Initial Chloride 24 ppm
- Date and time of sampling: 11/30/95 5 pm

### Initial Temperature 75 °F
- Date and time of sampling: 11/30/95 4 pm

### Date of Pump Installation N/A

### Pump Installation:
- Pump Type, Make, Serial No.
- Capacity ppm
- Motor type, H.P., Voltage, rpm
- Depth of Pump Intake Setting ft. below ground, which elevation is ft.
- Depth of bottom of airline ft. below ground, which elevation is ft.
- Pumping Head is ft.

### Pumping Tests:
- Reference Point (R.P.) used: ft. above ground, which elevation is ft.
- Date 11/30/95 see attached
- Start water level ft. below R.P.
- End water level ft. below R.P.
- Depth of well ft. below R.P.

<table>
<thead>
<tr>
<th>Elapsed Time (hours)</th>
<th>Rise (ppm)</th>
<th>Drawdown (ft.)</th>
<th>Temp. °F</th>
<th>Elapsed Time (hours)</th>
<th>Rise (ppm)</th>
<th>Drawdown (ft.)</th>
<th>Temp. °F</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 8</td>
<td></td>
<td></td>
<td></td>
<td>0 to 8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
</tbody>
</table>

(If more space is needed, continue on back.)

**Remarks:** Well for improvement of circulation in natural and man made coastal ponds

**Contractor (print):** C. Charles Stronglit

**Title:** Managing Partner

**Signature:**

**Date:** 12/28/95

---

**For Driller’s Use:**
- Job Name
- Job No.

---

**For Official Use:**
- Well No.: 4959-01
- Longitude: 155 59 44
- Latitude: 19 49 47
<table>
<thead>
<tr>
<th>Temp. Sand</th>
<th>4½' Rod</th>
<th>12'' Sched 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backfill</td>
<td>2' Cmt. Cap</td>
<td>P.V.C. Csq.</td>
</tr>
<tr>
<td>Cmt. Basket @ 7' Below</td>
<td></td>
<td>(Total 10' Plain)</td>
</tr>
<tr>
<td>@ 10' Top</td>
<td>OF Scotted Csq.</td>
<td>(Total 30' Slots)</td>
</tr>
<tr>
<td>W.T.D. 40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N 19'' open hole
WELL COMPLETION REPORT

1. STATE WELL NO. 4959-02
   WELL NAME: Hualalai Saltwater
   ISLAND: Hawaii

2. LOCATION: Address: Kaupuuluhehu, North Kona
   Tax Map Key: 7-2:3-4 & 5

3. DRILLING OR PUMP INSTALLATION CONTRACTOR: Wai'elli Drilling & Development

4. CONTRACTOR'S C-57 LICENSE NUMBER: C-16543

5. NAME OF DRILLER WHO PERFORMED WORK: Jack Lindeberg

6. TYPE OF RIG/CONSTRUCTION: Rotary

7. DATE OF WELL DRILLING COMPLETION: 12/8/95
   (NOTE: Report must be submitted within 30 days after the date above)

8. GROUND ELEVATION (msl) 0 ft.
   Top of Drilling Platform (msl) 0 ft.
   Height of Drilling Platform above Ground surface 0 ft.
   Bench Mark and Method Used to Determine Ground Elevation 0 ft.

9. DRILLER'S LOG:

<table>
<thead>
<tr>
<th>Depth (ft.)</th>
<th>Rock Description, Remarks, Dates</th>
<th>Water Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 40</td>
<td>mixed hard/soft layers</td>
<td>4.5 ft.</td>
</tr>
<tr>
<td>40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. TOTAL DEPTH OF WELL BELOW GROUND 40 ft.

11. HOLE SIZE:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>ft. to 40 ft. below ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 inch</td>
<td></td>
<td>ft. to 40 ft. below ground</td>
</tr>
</tbody>
</table>

12. CASING INSTALLED:

<table>
<thead>
<tr>
<th>Type of Perforation</th>
<th>in. D. x P.C</th>
<th>in. wall solid section</th>
<th>10 ft. below ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 in. D. x P.C</td>
<td></td>
<td>10 ft. below ground</td>
<td></td>
</tr>
</tbody>
</table>

13. ANNULUS:

Grouted from ft. below ground to ft. below ground
Gravel packed from ft. below ground to ft. below ground

14. INITIAL WATER LEVEL 4.5 ft. below ground. Date and time of measurement 12/4/95

15. INITIAL CHLORIDE 25 ppm Date and time of sampling 11/30/95 8:45 am

16. INITIAL TEMPERATURE 75°F Date and time of sampling 11/30/95 8:45 am

17. DATE OF PUMP INSTALLATION N/A

18. PUMP INSTALLATION:

<table>
<thead>
<tr>
<th>Pump Type, Make, Serial No.</th>
<th>Capacity</th>
<th>gpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor type, H.P., Voltage, rpm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depth of Pump Intake Setting</td>
<td>ft. below</td>
<td>which elevation is ft.</td>
</tr>
<tr>
<td>Depth of bottom of airline</td>
<td>ft. below</td>
<td>which elevation is ft.</td>
</tr>
<tr>
<td>Pumping Head</td>
<td>ft.</td>
<td></td>
</tr>
</tbody>
</table>

19. PUMPING TESTS:

<table>
<thead>
<tr>
<th>Reference Point (R.P.) used:</th>
<th>Date</th>
<th>ft. below ground.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20. Remarks:

Well for improvement of circulation in natural and man made coastal ponds

Contractor (print): C. Dale Storquist
Title: Managing Partner
Signature: ____________________

Date: ____________

For Official Use: Wall No. 4959-02

For Official Use: Wall No. 4959-02

Longitude 155.59 45

Latitude 19 43 40
<table>
<thead>
<tr>
<th>Temp. Sand</th>
<th>4 1/2' Blow</th>
<th>1/2&quot; Sched 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backfill</td>
<td>H2O</td>
<td>P.I.C. Csq.</td>
</tr>
<tr>
<td>2' Cement Cap</td>
<td></td>
<td>(Total 10' Plain)</td>
</tr>
<tr>
<td>Sand Seal</td>
<td>@ 7' Below</td>
<td>@ 10' Top</td>
</tr>
<tr>
<td>Cement Basket</td>
<td></td>
<td>Or Slotted Csq. (Total 30' slots)</td>
</tr>
<tr>
<td>@ 12' Csq Total 40'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 1/3' Open Hole

T.D. 40'
**WELL COMPLETION REPORT**

**State of Hawaii**
**COMMISSION ON WATER RESOURCE MANAGEMENT**
**Department of Land and Natural Resources**

**Instructions:** Please print or type and submit completed report within 30 days after well completion to the Commission on Water Resource Management, R.D. Box 682, Honolulu, Hawaii 96820. An as-built drawing of the well and chemical analyses should also be submitted. For assistance call the Commission Regulation Branch at 808-262-5225.

---

1. **STATE WELL NO. 4959-03**
   - **WELL NAME:** Hualalai Saltwater
   - **ISLAND:** Hawaii

2. **LOCATION:** Address: Kealakehehi, North Kona
   - **Tax Map Key:** 7-2-3/4 & 5

3. **DRILLING OR PUMP INSTALLATION CONTRACTOR:** Wei’eli Drilling & Development

4. **CONTRACTOR’S O-S7 LICENSE NUMBER:** C-16543

5. **NAME OF DRILLER WHO PERFORMED WORK:** Jack Lindeberg

6. **TYPE OF RIG/CONSTRUCTION:** Rotary

7. **DATE OF WELL DRILLING COMPLETION:** 12/7/95
   - **(NOTE: Report must be submitted within 30 days after this date)**

---

8. **GROUND ELEVATION (msl):** 10 ft.
   - **Top of Drilling Platform (msl):** 0 ft.
   - **Height of Drilling Platform above Ground surface:** 0 ft.
   - **Bench Mark and Method Used to Determine Ground Elevation:**

9. **DRILLER’S LOG:**
   - **Depth (ft.):**
     - 0 to 80
   - **Rock Description, Remarks, Dates:**
     - mixed-HARD/SOFT
   - **Water Level (ft.):**
     -混
   - **Depth (ft.):**
     - 0 to 80
     - 80 to 100

10. **TOTAL DEPTH OF WELL BELOW GROUND:**
    - **ft.**

11. **HOLE SIZE:**
    - **Inch dia. from:**
      - 0 ft. to 40 ft.
    - **ft. below ground:**
      - 40 ft. to 80 ft.

12. **CASING INSTALLED:**
    - **In. D.O. x PVC in. well solid section:**
      - 10 ft. below ground
    - **In. D.O. x PVC in. well perforated section:**
      - 40 ft. below ground

13. **ANNULUS:**
    - **Grouted from:**
      - ft. below ground to ft. below ground
    - **Gravel packed from:**
      - ft. below ground to ft. below ground

14. **INITIAL WATER LEVEL:**
    - **ft. below ground:**
      - 10 ft.
    - **Date and time of measurement:**
      - 11/13/95 8am

15. **INITIAL CHLORIDE:**
    - **ppm:**
      - 28 ppm
    - **Date and time of sampling:**
      - 11/13/95 8am

16. **INITIAL TEMPERATURE:**
    - **°F:**
      - 74°F
    - **Date and time of sampling:**
      - 10/23/95

17. **DATE OF PUMP INSTALLATION:**
    - **N/A**

18. **PUMP INSTALLATION:**
    - **Pump Type, Make, Serial No.:**
      - **Capacity:**
        - gpm
    - **Motor type, H.P., Voltage, rpm:**
      - **Depth of Pump Intake Setting:**
        - ft. below, which elevation is ft.
    - **Depth of bottom of airline:**
      - ft. below, which elevation is ft.
    - **Pumping Head is:**
      - ft.

19. **PUMPING TESTS:**
    - **Reference Point (R.P.) used:**
      - which elevation is ft.
    - **Date:**
      - 11/13/95
    - **Start water level:**
      - ft. below R.P.
    - **End water level:**
      - ft. below R.P.
    - **Depth of well:**
      - ft. below R.P.
    - **Elapsed Time (hours):**
      - Draw-down (ft.):
      - Cl (ppm):
      - Temp. (°F):
      - Elevation Time (hours):
      - Draw-down (ft.):
      - Cl (ppm):
      - Temp. (°F):

   - **(If more space is needed, continue on back.)**

**Remarks:** Well for improvement of circulation in natural and man made coastal ponds.

**Contractor (print):** Wei’eli Drilling & Development
**Title:** Managing Partner
**Signature:**

---

For Official Use:
- **Well No.:** 4959-03
- **Longitude:** 155 59 38
- **Latitude:** 19 49 54
Kaupulehu Saltwater Well No. 3
HDCSW.Z October 23, 1995
<table>
<thead>
<tr>
<th>Depth</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1'20</td>
<td>Sand backfill (Temp)</td>
</tr>
<tr>
<td>1'20</td>
<td>Cement cap 2' thick</td>
</tr>
<tr>
<td>1'20</td>
<td>Sand Gravel</td>
</tr>
<tr>
<td>1'20</td>
<td>Cement basket @ 8' depth</td>
</tr>
<tr>
<td>1'20</td>
<td>12&quot; P.V.C. casing (40)</td>
</tr>
<tr>
<td>1'20</td>
<td>10' Plain casing</td>
</tr>
<tr>
<td>1'20</td>
<td>30' Slotted casing</td>
</tr>
<tr>
<td>1'20</td>
<td>19' open hole</td>
</tr>
<tr>
<td>80' T.D.</td>
<td>121/4&quot; open hole</td>
</tr>
</tbody>
</table>

Water level 2'10" below grad. level

80' T.D.
State of Hawaii
Commission on Water Resource Management
Department of Land and Natural Resources

WELL COMPLETION REPORT

1. STATE WELL NO. 4959-04 WELL NAME Hualalai Saltwater ISLAND Hawaii
2. LOCATION: Address Kupaluhehu North Kona Tax Map Key 7-2-3-4 & 5
3. DRILLING OR PUMP INSTALLATION CONTRACTOR Wai'eli Drilling & Development
4. CONTRACTOR'S C-57 LICENSE NUMBER C-16543
5. NAME OF DRILLER WHO PERFORMED WORK Jack Lindeberg
6. TYPE OF RIG/CONSTRUCTION Rotary
7. DATE OF WELL DRILLING COMPLETION 12/8/95

NOTE: Report must be submitted within 30 days after this audit.

8. GROUND ELEVATION (msl) 0 ft.
Top of Drilling Platform (msl) 0 ft.
Height of Drilling Platform above Ground surface 0 ft.
Bench Mark and Method Used to Determine Ground Elevation 0 ft.

9. DRILLER'S LOG:

<table>
<thead>
<tr>
<th>Depth (ft.)</th>
<th>Water Level</th>
<th>Depth (ft.)</th>
<th>Water Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 40</td>
<td>mixed-soft</td>
<td>0 to 40</td>
<td>mixed-soft</td>
</tr>
<tr>
<td></td>
<td>with hard</td>
<td></td>
<td>with hard</td>
</tr>
<tr>
<td></td>
<td>layers</td>
<td></td>
<td>layers</td>
</tr>
</tbody>
</table>

(If more space is needed, continue on back.)

10. TOTAL DEPTH OF WELL BELOW GROUND 40 ft.
11. HOLE SIZE: 19 inch dia. from 0 ft. to 40 ft. below ground

12. CASING INSTALLED:

<table>
<thead>
<tr>
<th>Type of Perforation</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 in. I.D. x PVC in. wall solid section to 10 ft. below ground</td>
</tr>
<tr>
<td>12 in. I.D. x PVC in. wall perforated section to 40 ft. below ground</td>
</tr>
</tbody>
</table>

13. ANNULUS:

<table>
<thead>
<tr>
<th>Gravel packed from ft. below ground to ft. below ground</th>
</tr>
</thead>
</table>

14. INITIAL WATER LEVEL 8 ft. below ground. Date and time of measurement 11/15/95
15. INITIAL CHLORIDE 9 ppm Date and time of sampling 11/20/95 12:45
16. INITIAL TEMPERATURE 75 °F Date and time of sampling 11/20/95 12:45
17. DATE OF PUMP INSTALLATION W/A
18. PUMP INSTALLATION:

<table>
<thead>
<tr>
<th>Pump Type, Make, Serial No.</th>
<th>Capacity (gpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor type, H.P., Voltage, rpm</td>
<td></td>
</tr>
<tr>
<td>Depth of Pump Intake Setting ft. below 11 ft., which elevation is ft.</td>
<td></td>
</tr>
<tr>
<td>Depth of bottom of airline ft. below 4 ft., which elevation is ft.</td>
<td></td>
</tr>
</tbody>
</table>

Pumping Head is ft.

19. PUMPING TESTS:

<table>
<thead>
<tr>
<th>Reference Point (R.P.) used:</th>
</tr>
</thead>
<tbody>
<tr>
<td>which elevation is ft.</td>
</tr>
</tbody>
</table>

Date 11/20/95 SEE ATTACHED
Start water level ft. below R.P. ft. below R.P. ft. below R.P.
End water level ft. below R.P. ft. below R.P. ft. below R.P.
Depth of well ft. below R.P. ft. below R.P. ft. below R.P.

<table>
<thead>
<tr>
<th>Elapsed Time (hours)</th>
<th>Rate (gpm)</th>
<th>Draw-down (ft.)</th>
<th>CI (ppm)</th>
<th>Temp. °F</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(If more space is needed, continue on back.)

Remarks: Well for improvement of circulation in natural and man-made coastal ponds

*

Contractor (print) DALE STROMQUIST
Title MANAGING PARTNER
Signature

Date 12/28/95

For Official Use: Well No. 4959-04
For Other Use: Job No. 4959-04

Longtitude 155 59 38 Latitude 12 49 54
<table>
<thead>
<tr>
<th>Temp. Sand</th>
<th>N/12&quot; Schedule 40 P.U.C. Casing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backfill</td>
<td>(Total 10' Plain)</td>
</tr>
<tr>
<td>Sand Screen</td>
<td>@ 9' below</td>
</tr>
<tr>
<td>Cement Cap</td>
<td>H201 @ 10' Top</td>
</tr>
<tr>
<td>Gravel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OF Slotted Casing</td>
</tr>
<tr>
<td></td>
<td>(Total 30' Slots)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N/12&quot; Casing Total 40'</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N/14&quot; Open Hole</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T.D. 40'</td>
</tr>
</tbody>
</table>
WELL CONSENT. PUMP INSTALL. PERMIT CONDITIONS:

2. Allow for installation of 850 GPM pumps,
    then installed 1100 GPM pumps

4b. Nounteer! - not critical but part of permit

3. Exceeded 30 days after completion
Log in Weather + Wellpumps 1-5-96

Didn't follow aquifer test protocol.

Could you get a T out of this?

No. Tidal component too great to reduce. DB is very small compared to the tidal component. No location map.

Would this a little re-enable near the outlet? Do we need to follow up?

(Only salt water - no need.

Also, refer current action.wavere AT requirement.)

02/95
WELL CONSTRUCTION/PUMP INSTALLATION PERMITS

for
Hualalai Saltwater Wells
Well Nos. 4959-01 to 04

To: Hualalai Development Company
P.O. Box 1119
Kailua-Kona, Hawaii 96745

In accordance with Department of Land and Natural Resources Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", your application to construct, test, and install pumps in Hualalai Saltwater Wells (Well Nos. 4959-01 to 04) at Kaupulehu, North Kona, Hawaii, TMK 7-2-3:4 & 5, is approved, subject to the following conditions:

STANDARD WELL CONSTRUCTION/PUMP INSTALLATION PERMIT CONDITIONS

1. The Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, before any work by this permit commences.

2. The well construction/pump installation permit shall be for construction, testing, and installation of 850 gpm capacity, or less, pumps in the wells.

3. The proposed well construction shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to construct the well shall not constitute a determination of correlative water rights.

4. The following shall be submitted to the Commission within thirty (30) days after completion of work:
   a. Well completion report.
   b. Elevation (referenced to mean sea level, msl) survey by a Hawaii-licensed surveyor.
   c. As-built sectional drawing of the well.
   d. Plot plan and map showing the exact location of the well.

5. The applicant shall comply with all applicable laws, rules, and ordinances.

6. The well construction permit application and staff submittal approved by the Commission at its October 18, 1995 meeting are incorporated into the permit by reference.
The permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Commission upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Commission no later than three (3) months prior to the date the permit expires. If the commencement or completion date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.

Special Condition

Construction shall be done during periods of minimal rainfall, and shall incorporate mitigation measures to prevent construction materials from blowing, leaching, draining, or entering the aquatic environment. Land clearing for construction should be followed as soon as possible by replanting to prevent erosion.

MICHAEL D. WILSON, Chairperson
Commission on Water Resource Management

Date of Issuance: 10/30/95
Date of Approval: October 18, 1995

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed.

Applicant’s Signature: ___________________________ Date: Nov. 6, 1995
Printed Name: ________________________________
Firm or Title: V.P. Construction

Please sign both copies and return one copy of this permit to the Commission and retain a copy for your record.

Attach.
cc: USGS
Department of Health
Safe Drinking Water Branch
Ground Water Protection Program
Wastewater Branch
Hawaii Department of Water Supply
AQUIFER (PUMP) TEST PROCEDURES

The pump test procedure for new wells shall consist of a step-drawdown test followed by a long-term continuous aquifer test. Testing the well and aquifer in the prescribed manner should result in the hydrologic information needed to determine: 1) the well’s performance with regard to yield and water quality (chloride concentration), and 2) the nearby hydraulic properties of the aquifer.

General Recording Requirements

The records required for analysis and the tolerance in measurement acceptable for the step-drawdown and long-term continuous aquifer test are as follows:

1. Discharge from the well shall not fluctuate beyond ± 10 percent.
2. Depth to water measurements in the pumped well shall be accurate to 0.01 feet.
3. Time shall be accurate within ± 1 percent.
4. Water discharged from the well during the step-drawdown and long-term test shall be carried away from the well to a distance sufficient to preclude circulation of the discharge water downward to the ground-water table.
5. Recording of data should be on a form similar to Table 1. All information shown in Table 1 shall be provided. In addition, data shall be plotted on Graph 1 and provided.

Step-Drawdown Test

The purpose of the step-drawdown test is to establish the efficiency of the well and to provide preliminary information on the yield of the well, both from a quantity and quality standpoint.

1. Measurement of water level in the pumped well shall be made every 12 hours for a period of no less than two days prior to the initiation of the step-drawdown test in order to obtain the pretest trend in water levels.
2. The step-drawdown test will consist of continuously pumping the well for four hours at four different rates.
   a. The change from one pumping rate to the next must be sufficient to induce an observable change in water level in the well from the previous pumpage rate.
   b. If desired, the four different rates should represent the full range of pump capacity (if the yield can sustain this), but this is not necessary.
To: Hualalai Development Company  
P.O. Box 1119  
Kailua-Kona, Hawaii 96745

In accordance with Department of Land and Natural Resources Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", your application to construct, test, and install pumps in Hualalai Saltwater Wells (Well Nos. 4959-01 to 04) at Kaupulehu, North Kona, Hawaii, TMK 7-2-3:4 & 5, is approved, subject to the following conditions:

**STANDARD WELL CONSTRUCTION/PUMP INSTALLATION PERMIT CONDITIONS**

1. The Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, before any work by this permit commences.

2. The well construction/pump installation permit shall be for construction, testing, and installation of 850 gpm capacity, or less, pumps in the wells.

3. The proposed well construction shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to construct the well shall not constitute a determination of correlative water rights.

4. The following shall be submitted to the Commission within thirty (30) days after completion of work:
   a. Well completion report.
   b. Elevation (referenced to mean sea level, msl) survey by a Hawaii-licensed surveyor.
   c. As-built sectional drawing of the well.
   d. Plot plan and map showing the exact location of the well.

5. The applicant shall comply with all applicable laws, rules, and ordinances.

6. The well construction permit application and staff submittal approved by the Commission at its October 18, 1995 meeting are incorporated into the permit by reference.
7. The permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Commission upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Commission no later than three (3) months prior to the date the permit expires. If the commencement or completion date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.

Special Condition

1. Construction shall be done during periods of minimal rainfall, and shall incorporate mitigation measures to prevent construction materials from blowing, leaching, draining, or entering the aquatic environment. Land clearing for construction should be followed as soon as possible by replanting to prevent erosion.

MICHAEL D. WILSON, Chairperson
Commission on Water Resource Management

Date of Issuance: 10/30/95
Date of Approval: October 18, 1995

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed.

Applicant’s Signature: ___________________________ Date: ____________
Printed Name: ____________________________________________
Firm or Title: _____________________________________________

Please sign both copies and return one copy of this permit to the Commission and retain a copy for your record.

Attach.
cc: USGS
    Department of Health
    Safe Drinking Water Branch
    Ground Water Protection Program
    Wastewater Branch
    Hawaii Department of Water Supply
AGENDA

FOR THE MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: October 18, 1995
TIME: 9:00 am
PLACE: State Office Tower
Conference Room #1310

1. Minutes of the September 13, 1995 meeting

2. Old Business/Announcements

3. Grove Farm Properties, Inc., Application for a Stream Channel Alteration Permit
   Redesign of a Golf Course Culvert Crossing, Puali Stream, Puhi, Kauai

4. County of Hawaii, Department of Public Works, Application for a Stream Channel
   Alteration Permit, Wailuku River, Hilo, Hawaii, (TMK 2-5-09:04)

5. Gentry Development Company, Inc., Application for a Stream Channel Alteration
   Permit, 36-inch Sewer Line and Utility Crossing, Waiawa Stream, Pearl City, Oahu
   (TMK 9-6-04:04)

6. Chang Chow Properties, Inc., Application for a Stream Channel Alteration Permit,
   Construction of Retaining Wall, Kalihi Stream, Honolulu, Oahu (TMK 1-3-15:71)

7. City and County of Honolulu, Department of Transportation Services, Application for
   a Stream Channel Alteration Permit, Excavation of Stream Banks for a Bikeway
   Bridge Waiawa Stream, Pearl City, Oahu (TMK 9-6-03:01, 9-7-16:10)

8. Hualalai Development Company, Application for Well Construction/Pump Installation
   Permits, Hualalai Saltwater Wells (Well Nos. 4959-01 to 04), Construction of four
   12-inch diameter, 100-foot deep Wells and Installation of 850-gpm Pumps for
   seawater pond circulation, TMK 7-2-3:4 & 5 Kaupulehu, North Kona, Hawaii

9. Hualalai Development Company, Application for a Pump Installation Permit, Hualalai
   Makai Irrigation Well (Well No. 4859-01), Installation of a 240 gpm Pump for golf
   course use, TMK 7-2-3:6 Kaupulehu, North Kona, Hawaii
construction of a dike on the bank of the Wai'ula River, subject to the standard conditions as listed in the submittal.

TESTIMONIES:

Mr. Conrad Hokama of the Office of Water Resources Management testified in support of the project.

MOTION: (GIRALD/MUIKE)

To approve staff's recommendation.

UNANIMOUSLY APPROVED.

(Due to a request from the applicant, Item #8 was moved up.)

8. HUALALAI DEVELOPMENT COMPANY, APPLICATION FOR WELL CONSTRUCTION/PUMP INSTALLATION PERMITS, HUALALAI SALTWATER WELLS (WELL NOS. 4959-01 TO 04), CONSTRUCTION OF FOUR 12-INCH DIAMETER, 100-FOOT DEEP WELLS AND INSTALLATION OF 850-GPM PUMPS FOR SEAWATER POND CIRCULATION, TMK 7-2-3:4 & 5 KAUPULEHU, NORTH KONA, HAWAII

PRESENTATION OF SUBMITTAL: Mr. Charley Ice

STAFF RECOMMENDATION:

Staff recommended that the Commission approve the issuance of a well construction/pump installation permit for the Hualalai Saltwater Wells, subject to the standard conditions as listed in the staff submittal, as well as the following special condition:

1. Construction should be done during periods of minimal rainfall, and shall incorporate mitigation measures to prevent construction materials from blowing, leaching, draining, or entering the aquatic environment. Land clearing for construction should be followed as soon as possible by replanting to prevent erosion.

Staff also requested to amend the recommendation by deleting Condition #2 of the standard conditions in Attachment C.

TESTIMONY BY APPLICANT: Mr. Roger Harris of Hualalai Development Company and Mr. Tom Nance, Project Engineer, was available to answer questions.

MOTION: (NOBRIGA/COX)

To approve staff's recommendation as amended.

UNANIMOUSLY APPROVED AS AMENDED.
Hualalai Development Company
Application for Well Construction/Pump Installation Permits
Hualalai Saltwater Wells (Well Nos. 4959-01 to 04)
Construction of four 12-inch diameter, 100-foot deep Wells
and Installation of 850-gpm Pumps
for seawater pond circulation

Action Requested: Expedited permission to construct four 12-inch diameter, 100-foot deep wells, and installation of 850-gpm pumps in Hualalai Saltwater Wells 1-4, for seawater pond circulation.

Well Location/Tax Map Key: The well is located at Kaupulehu, North Kona at Tax Map Key 7-2-3:4 & 5 (see Attachment A).

Well Description: (see Attachment B)

Ground elevation: 9 & 11 ft.
Hole diameter: 16 in.
Solid casing depth: 50 ft.
Screen casing depth: 50 ft
Open hole: none
Total depth: 100 ft.
Anticipated pump size: 850 gpm
Agency Review: The application was circulated to the State DLNR's Divisions of Historic Preservation and Aquatic Resources, the Office of Hawaiian Affairs, the Departments of Hawaiian Home Lands and Health, Hawai’i County Department of Water Supply, and to the Sierra Club Legal Defense Fund.

Historic Preservation commented that Hualalai Development Company has yet to complete a preservation plan; they recommend deferral of approval until they are able to evaluate proposed wells in relation to historic sites. Aquatic Resources noted the project's proximity to coastal waters, suggesting that mitigation measures be taken to prevent drill cuttings, extraction media or petroleum products, sediment and other debris from entering the aquatic environment; they further recommended site work be done during periods of minimal rainfall, and that grubbing or clearing be remediated as quickly as possible, to control erosion.

Discussion: The initial applications, submitted in July 1995, called for horizontal, skimming-type wells. This plan was revised the following month and submitted with a request for expediting, citing the need to preserve access for drilling equipment before other work at the resort progressed. The revised plan called for three vertical wells about 40 feet deep and 16-inches in diameter, pumping from 250 to 350 gpm.

This plan was circulated for expedited review, and prepared for submittal to the September 25, 1995 meeting that was postponed. A letter dated September 25, 1995 was then received, requesting a fourth well, and upon follow-up conversation by phone, it was learned that new well specifications for the fourth well would also apply to the other three. In this version, the wells would be 100 feet deep, just 12 inches in diameter, and would pump 850 gpm, as proposed herein.

Historic Preservation and Aquatic Resources Divisions, who had provided earlier comments, were consulted for any further comments. Both reported the same considerations as earlier.

Water Availability: The well is located in the Kiholo System of the Hualalai Sector of Hawaii, with a sustainable yield estimated at 18 mgd. Existing use is about 0.39 mgd.

Analysis: The proposed wells would tap salt water. Proposed use is approximately 2.44 mgd. There are no other wells within one mile. No adverse impacts are expected.

RECOMMENDATION:

That the Commission approve the issuance of well construction/pump installation permit for the Hualalai Saltwater Wells, subject to the standard conditions (Attachment C), and the following special conditions:
1. Construction should be done during periods of minimal rainfall, and shall incorporate mitigation measures to prevent construction materials from blowing, leaching, draining, or entering the aquatic environment. Land clearing for construction should be followed as soon as possible by replanting to prevent erosion.

2. A preservation plan shall be approved by the Division of Historic Preservation, and documentation of this approval shall be submitted to the Commission, prior to issuance of the permit.

Respectfully submitted,

Edwin J. Saboda  
Sgr: RAE M. LOUI  
Deputy Director

Attachments

APPROVED FOR SUBMITTAL:

MICHAEL D. WILSON, Chairperson
Hualalai Saltwater Wells
(4959–01 to 04)

PROJECT AREA

Attachment A
9. PROPOSED WELL SECTION
(See Attached Well Plan and Section)

- Elevation at top of casing: 12 ft., m.s.l.
- Cement Grout: 45 ft.
- Rock Packing: 55 ft.
- Hole Diameter: 19 in.
- Total Depth: 100 ft.
- Ground Elevation: 11 ft., m.s.l.
- Solid Casing:
  - Material: PVC (Sch. 40)
  - Length: 50 ft.
  - Diameter: 12 (nominal) in.
  - Wall thickness: 0.406 in.
- Casing:
  - Perforated: Yes
  - Screen: No
  - Material: PVC (Sch. 40)
  - Length: 50 ft.
  - Diameter: 12 (nominal) in.
  - Wall thickness: 0.406 in.
  - Openings: 60 sq. in./L.F.
- Open Hole: None

*Approximate elevation at time of filing application. Ground elevation above mean sea level (m.s.l) by a surveyor licensed by the State must be submitted at start of construction. Final elevations of well components shall be submitted in the well completion/well abandonment reports.

Attachment B
STANDARD WELL CONSTRUCTION PERMIT CONDITIONS

1. The Commission shall be notified before work commences.

2. The well construction permit shall be for construction and testing of the well only. The applicant shall coordinate with the Commission and conduct a pumping test and provide a means to accurately measure water levels, acceptable to the Commission, in accordance with the standard protocol.

3. The proposed well construction shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to construct the well shall not constitute a determination of correlative water rights.

4. The following shall be submitted to the Commission within thirty (30) days after completion of work:
   a. Well completion report.
   b. Elevation (referenced to mean sea level, msl) survey by a Hawaii-licensed surveyor.
   c. As-built sectional drawing of the well.
   d. Plot plan and map showing the exact location of the well.

5. The applicant shall comply with all applicable laws, rules, and ordinances.

6. The well construction permit application and staff submittal approved by the Commission at its October 18, 1995 meeting are incorporated into the permit by reference.

7. The permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Commission upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Commission no later than three (3) months prior to the date the permit expires. If the commencement or completion date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.

Special Conditions

1. Construction should be done during periods of minimal rainfall, and shall incorporate mitigation measures to prevent construction materials from blowing, leaching, draining, or entering the aquatic environment. Land clearing for construction should be followed as soon as possible by replanting to prevent erosion.

2. A preservation plan shall be approved by the Division of Historic Preservation, and documentation of this approval shall be submitted to the Commission, prior to issuance of the permit.

Attachment C
Dear Mr. Wilson:

Well Construction and Pump Installation Permit Applications  
For a Fourth Saltwater Circulation Well at Hualalai Resort

Enclosed are well construction and pump installation permit applications and filing fee for a fourth saltwater circulation well at the Hualalai Resort. Permits have previously been submitted for the first three wells. This fourth well has been determined to be necessary to achieve the desired water clarity in an excavated water feature. This well, which has been designated No. 4, will be approximately 100 feet north of Well No. 3. At the scale of the enclosed TMK and USGS Quadrangle maps, these two wells are shown to be at the same location.

As with the first three wells, we respectfully request expedited processing. The pace of hotel and site work construction will soon close off access for a drill rig to the well sites. If you have any questions or require additional information, feel free to call. Thank you for your assistance.

Sincerely,

Tom Nance

cc: John Mansour - HDC

Enclosures
PAY ** Twenty-five and 00/100 ** DOLLARS $25.00

TO THE ORDER OF Department of Land & Natural Resources

September 25, 1995

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW.
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.

Filing Fee: Well Construction and Pump Installation
Permit Application For Hualalai Resort -
Saltwater Well No. 4 (Job No. 95-10)

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DEPARTMENT OF LAND AND NATURAL RESOURCES

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TOTAL  $25.00

REMARKS: LINE (1) Well # 4959-01 to 04
MEMORANDUM

TO: Charley Ice
Commission on Water Resource Management

FROM: Don Hibbard, Administrator
State Historic Preservation Division

SUBJECT: Hualalai Development Company Saltwater Wells and Irrigation Wells
Kaupulehu, North Kona, Hawaii Island
TMK: 7-2-3: 4 and 5

This is a follow-up to your phone conversation with Patrick McCoy on September 20, 1995 that was made in response to our Memorandum of September 12, 1995. At that time we stated that we could not complete our review of the well permit applications because we did not have any maps showing the spatial relationship of the wells to historic sites. We have reviewed the maps you faxed us and another map sent to us by Ms. Heather Cole of Hualalai Development Company. It is our understanding based on a phone conversation with Heather Cole that the irrigation wells have already been approved and in fact already exist. With regard to the three new saltwater wells, all of them are far enough removed from the coastal trail (Site 10942) to not pose any threat to the trail. The new wells, then, will in our view have a "no adverse effect" on this site.

PM:amk

cc: Heather Cole
## APPLICATION FOR PERMIT

### Instructions:
- Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 821, Honolulu, Hawaii 96825. Application must be accompanied by a non-refundable filing fee of $25.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 587-0225.

### 1. APPLICANT:
- **(a) WELL OWNER**
  - Name: Hualalai Development Company
  - Contact Person: Kim Richards
  - Address: P.O. Box 1119, Kailua-Kona, Hawaii 96745

- **(b) LANDOWNER**
  - Name: Kamakehaha Schools/BP Bishop Estate
  - Address: 567 South King Street - Suite 200, Honolulu, Hawaii 96813

- **(c) CONTRACTOR**
  - Name: Wai'ele Drilling & Development
  - Address: P.O. Box 5685, Kailua-Kona, Hawaii 96745
  - Contact Person: Ph: 808-324-1420
  - Contractor's C-57 License No: C16543

### 2. WELL LOCATION/NAME:
- **Hualalai Resort - Saltwater Well No. 4 Island: Hawaii**
- Address: No street address, makai of Queen Kaahumanu Hwy.
- Tax Map Key: 7-2-03:5

(Attach a USGS map, scale 1"=2000', and a property tax map showing well location referenced to established property boundaries.)

### 3. (a) PROPOSED WORK:
- **Drill New Well**
- **Modify Existing Well**
- **Reroute**
- **Install New Pump**
- **Deepen**
- **Abandon/Seal**
- Be sure to complete and submit well abandonment report upon completion of work.

### 3. (b) WELL TYPE:
- **Dug**
- **Bored**
- **Driven**
- **Drilled**
- **Radial**
- Is this well a part of a battery of wells? Yes No

(Briefly describe and fill in the diagram on the back of this form.)

### 4. PROPOSED PUMP INFORMATION:
- **Rated Pump Capacity:** 850 gallons per minute
- **Pump Type:**
  - Deep Well Turbine
  - Rotary
  - Submersible
  - Centrifugal
  - Propeller
  - Rotary-Displacement
  - Rotary-Gear
  - Reciprocating
  - Impulse
  - Motor:
    - Diesel
    - Gas
    - Electric, rated horsepower of ___ 10 HP

### 5. PROPOSED USE:
- **Municipal (including hotels, stores, etc.)**
- **Domestic (individual, noncommercial water sys.)**
- **Irrigation (crop)**
- **State Land Use District:**
  - Urban
  - Agriculture
  - Rural
  - Conservation

(State Land Use District:)

(County Zoning (describe):)

(If more space is needed, continue below under remarks, explanations.)

### 6. (a) PROPOSED AMOUNT OF WITHDRAWAL:
- **1,224,000 gallons per day**

### 6. (b) METHOD OF FLOW MEASUREMENT:
- **Open-pipe**
- **Orifice Plate**
- **Well**

### 7. PENDING ACTIONS:
- CDUA
- SMA
- OI5
- EA
- NONE
- Other (explain)

### 8. REMARKS, EXPLANATIONS:
- See Reverse Side

---

**NOTE:** Signing below indicates that the applicant understands that, if the permit requested is granted by the Commission on Water Resource Management, the proposed work is to be complete within two (2) years of the approval date. In addition, the contractor shall submit to the Commission a well completion report, well abandonment report, or both, within 30 days after completion of the work. The applicant further understands that the proposed permit shall not constitute a declaration of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

---

**For Official Use Only:**
- Date Received
- Date Accepted
- Field Checked By
- Date

**Signature:**
- Hualalai Development Co.
- Landowner: BP Bishop Estate
- Contractor: Wai'ele Drilling & Development

**Date:**
- 9/19/95
- 9/19/95
- 9/20/95

**Aquifer System Name:**
- State Well No.:
8. **REMARDS, EXPLANATIONS (cont.):**

Saline groundwater will be used to increase the natural circulation rate in the Resort’s man-made King’s Pond, thereby improving its water clarity.

9. **PROPOSED WELL SECTION**
(See Attached Well Plan and Section)

- Elevation at top of casing: 12 ft., msl
- Ground Elevation: 11 ft., msl*
- Cement Grout: 45 ft.
- Rock Packing: 55 ft.
- Hole Diameter: 19 in.
- Total Depth: 100 ft.
- Solid Casing:
  - Material: PVC (Sch. 40)
  - Length: 50 ft.
  - Diameter: 12 (nominal) in.
  - Wall thickness: 0.406 in.
- Casing: None
  - Material: PVC (Sch. 40)
  - Length: 50 ft.
  - Diameter: 12 (nominal) in.
  - Wall thickness: 0.406 in.
  - Openings: 60 sq. in./L.F.

*Approximate elevation at time of filing application. Ground elevation above mean sea level (msl) by a surveyor licensed by the State must be submitted at start of construction. Final elevations of well components shall be submitted in the well completion/well abandonment reports.
FACSIMILE TRANSMITTAL PAGE

Please deliver the following pages to:

Name: Kim Richards
Company: Hualalai Development Company
From: Charley Lee
Date: 18 Sep 95 Time: 10 am

Message: attached are comments from Historic Preservation and Aquatic Resource Divisions, FYI. We have supplied DHP with a map (also attached here), and will incorporate these comments into our submittal to the Commission.

Total number of pages (including Transmittal Page): 4

* * * * * * * *

If you do not receive all of the pages legibly, please call back: (808) 587-0251

Sending Facsimile Number: (808) 587-0219
Receiving Facsimile Number: ( ) 325 1400
FROM: Charley
TO: INIT:

R. LOUI
J. UWAINA
F. CHING
S. SUBIA
K. YODA

SURVEY BRANCH

E. HIRANO
G. BAUER
R. HARDY
N. FUJII
M. OHYE
I. KUNIMURA

REGULATION BRANCH

E. KOKODA
D. HIGA
L. NAKAMA
C. ICE
R. JINNAI
S. SWANSON

PLANING BRANCH

S. EDMUNDS
L. MITUNO

DATE: 19 Sep 95

COMMISSION ON WATER RESOURCE

Can you FAX ASAP
the Historic Preservation
comments on the
Hualalai Sub Water Wells

FAX: 808-773-7
Tel 537 1141

1. Tom Nance informs me that
Hualalai now wants to drill
about 100' (not 40'), use a larger
casing (2" not 1") and install
a larger capacity pump. They
will spell this out by letter - good

Because no comments were raised implicitly
can we proceed w/a modified submittal, without review? Sounds O.K., especially
since drilling deep gets into
COMMISSION ON WATER RESOURCE MANAGEMENT

FROM: [Signature]

TO: R. LOUI

DATE: 9/13

SUSPENSE DATE: __________

INIT:__________

TO: INIT:__________

FOR: REGULATION BRANCH

PLEASE: ________

APPROVAL ________

SIGNATURE ________

INFORMATION ________

See Me

Review & Comment

Take Action

Type Draft

Type Final

File

Xerox ______ copies

INIT:__________

SIGNATURE ________

INFORMATION ________

INIT:__________

SUSPENSE DATE: __________

INIT:__________

DATE: __________

INIT:__________
TO: Don Hibbard, Administrator
Division of Historic Preservation

William Devick
Division of Aquatic Resources

Marjorie Ziegler
Sierra Club Legal Defense Fund

David Martin
Native Hawaiian Advisory Council

FROM: Rae M. Loui, Deputy Director
Commission on Water Resource Management

SUBJECT: Well Construction Permit Applications for
Hualalai Saltwater Wells (Well Nos. 4959-01 to 03)
Pump Installation Permit Application for
Hualalai Makai Irrigation Well (Well No. 4859-01)

Transmitted for your review and comment is a copy of well construction permit applications for Hualalai Resort Salt Water Wells (Well Nos. 4959-01 thru 03) and pump installation permit application for Hualalai Makai Irrigation Well (Well No. 4859-01).

We would appreciate your comments on the attached applications for any conflicts or inconsistencies with the programs, plans, and objectives specific to your division only. Please respond by returning this cover memo form by September 14, 1995. We have been requested to expedite this review.

If you have any questions about these well construction permit applications, please contact Mr. Charley Ice of the Commission staff at 587-0251.

Response:

( ) We have no objections

( ) Comments attached

Contact Person: William Devick
Phone: 587-0250

Signed: /s WSD (see memo) Date: 9/11/95
State of Hawaii
Department of Land and Natural Resources
DIVISION OF AQUATIC RESOURCES

September 11, 1995

MEMORANDUM

TO: Rae M. Loui, Deputy Director
Commission on Water Resource Management

FROM: Bill Devick, Program Manager
Division of Aquatic Resources

SUBJECT: Comments on Well Construction Permit Applications for Hualalai Saltwater Wells (Well Nos. 4959-01 to 03) and Pump Installation Permit Application for Hualalai Makai Irrigation Well (Well No. 4859-01), Hawaii (TMK: 7-2-03:4, 5, & 6)

The applicant (Hualalai Development Company) proposes to drill 3 new saltwater wells in the Kailua-Kona area on the island of Hawaii. These wells will be located makai of the Queen Kaahumanu Highway in the vicinity of the Kaupulehu Resort. In addition, new 5 HP centrifugal pumps will be installed at each well to withdraw water for use in Seawater Pond Circulation. 720,000 gallons per day will be withdrawn from Well Nos. 1 & 2 and 1,000,000 gallons per day will be withdrawn from Well No. 3. The applicant also proposes to install a new pump at an existing well (Hualalai Makai Irrigation Well No. 1 (4859-01)) to withdraw water (345,000 gallons per day) for golf course irrigation purposes.

The proposed projects are not expected to have significant adverse impact on aquatic resource values in this area. However, since the proposed projects are adjacent to nearshore waters, construction activities could have potential short-term impacts on aquatic resources such as temporary turbidity, biota displacement and disturbance. Therefore, mitigation measures should be taken during construction to prevent drill cuttings, cutting extraction medium, petroleum products, sediment and other debris from blowing, leaching, draining or entering the aquatic environment. Further, we suggest the additional mitigation measures as conditions to limit or prevent excessive potential adverse impact to aquatic resources during construction:

1) site work should be scheduled for periods of minimal rainfall; and

2) lands denuded of vegetation should be replanted or covered as quickly as possible to control erosion.
September 12, 1995

MEMORANDUM

TO: Rae Loui, Deputy Director
Commission on Water Resource Management

FROM: Don Hibbard, Administrator
State Historic Preservation Division

SUBJECT Well Construction Permit Applications for Hualalai Saltwater Wells (Well Nos. 4959-01 to 03) and Pump Installation Permit Application for Hualalai Makai Irrigation Well (Well No. 4859-01) Kaupulehu, North Kona, Hawaii Island

We are unable to complete our review because of the lack of a map showing the locations of historic sites that have been slated for preservation in relationship to the proposed wells. In the absence of this basic information we are not able to evaluate whether or not the proposed wells will have an "adverse effect" on historic sites. We have recently reminded Hualalai Development Company of the need to finish their preservation plan for sites to be preserved in the coastal areas. Approval of the well permit applications should be deferred until we have the kind of map referred to above, so we can evaluate the wells in relation to preservation concerns.

PM: amk
FACSIMILE TRANSMITTAL PAGE

Please deliver the following pages to:

Name:  
Company:  
From:  
Date:  18 Sep 95  Time:  9am

Message:  Our apologies for failure to provide an adequate map for your review. The attached map is hopefully an improvement. We will proceed with your comment in our submittal, which goes to the Commission 25 Sep 95. Other comments would be appropriate at that time.

Total number of pages (including Transmittal Page):  2

If you do not receive all of the pages legibly, please call back: (808) 587-0219

Sending Facsimile Number:  (808) 587-0219
Receiving Facsimile Number:  0018
FACSIMILE TRANSMITTAL PAGE

Please deliver the following pages to:

Name: Patrick McCoy

Company: Historic Preservation

From: Charley Lee

Date: 20 Sep 95   Time: 145 pm

Message: sending maps locating Hualalai Saltwater Wells and Hualalai Irrigation well.

Total number of pages (including Transmittal Page): 3

* * * * * * * * *

If you do not receive all of the pages legibly, please call back: (808) 587-0251

Sending Facsimile Number: (808) 587-0219
Receiving Facsimile Number: ( ) 7-0008
TO: Honorable Lawrence Miike, Director
Department of Health
Attention: Mr. Dennis Tulang, Wastewater Branch
Mr. William Wong, Safe Drinking Water Branch

Honorable Kali Watson, Chairman
Hawaiian Homes Commission

Honorable Clayton H.W. Hee, Chairperson
Office of Hawaiian Affairs

Mr. Milton Pavao, Manager
Hawaii Department of Water Supply

Ms. Donna Fay K. Kiyosaki, Manager and Chief Engineer
County of Hawaii, Department of Public Works

FROM: Michael D. Wilson, Chairperson
Commission on Water Resources Management

SUBJECT: Well Construction Permit Applications for
Hualalai Saltwater Wells (Well Nos. 4959-01 to 03)
Pump Installation Permit Application for
Hualalai Makai Irrigation Well (Well No. 4859-01)

Transmitted for your review and comment is a copy of well construction permit applications for Hualalai Resort Salt Water Wells (Well Nos. 4959-01 thru 03) and pump installation permit application for Hualalai Makai Irrigation Well (Well No. 4859-01).

We would appreciate your comments on the attached applications for any conflicts or inconsistencies with the programs, plans, and objectives specific to your division only. Please respond by returning this cover memo form by September 14, 1995. We have been requested to expedite this review.

If you have any questions about these well construction permit applications, please contact Mr. Charley Ice of the Commission staff at 587-0251.

Cl:ss Attachment(s)
Response:

( ) We have no objections

Comments attached: Water Wells not within Public Works regularity authority.

Contact Person: Phone:
Signed: Date:

(961-8327)
TO: Honorable Lawrence Miike, Director
   Department of Health
   Attention: Mr. Dennis Tulang, Wastewater Branch
              Mr. William Wong, Safe Drinking Water Branch

   Honorable Kali Watson, Chairman
   Hawaiian Homes Commission

   Honorable Clayton H.W. Hee, Chairperson
   Office of Hawaiian Affairs

   Mr. Milton Pavao, Manager
   Hawaii Department of Water Supply

   Ms. Donna Fay K. Kiyosaki, Manager and Chief Engineer
   County of Hawaii, Department of Public Works

FROM: Michael D. Wilson, Chairperson
      Commission on Water Resources Management

SUBJECT: Well Construction Permit Applications for
          Hualalai Saltwater Wells (Well Nos. 4959-01 to 03)
          Pump Installation Permit Application for
          Hualalai Makai Irrigation Well (Well No. 4859-01)

Transmitted for your review and comment is a copy of well construction permit
applications for Hualalai Resort Salt Water Wells (Well Nos. 4959-01 thru 03) and pump
installation permit application for Hualalai Makai Irrigation Well (Well No. 4859-01).

We would appreciate your comments on the attached applications for any conflicts or
inconsistencies with the programs, plans, and objectives specific to your division only. Please
respond by returning this cover memo form by September 14, 1995. We have been requested to
expedite this review.

If you have any questions about these well construction permit applications, please
contact Mr. Charley Ice of the Commission staff at 587-0251.

Contact Person: Lori N. Kajiwo

Signed: Lori N. Kajiwo
Date: 9-14-95
IWS DATA PROFILE --- COUNTY OF KONA

TMK #: 7-02-003:004  FILE #: 2807-
OWNER: KAUPULEHU RESORT (FOUR SEASONS)
LOT LOCATION: QUEEN KAHAUMANU HIGHWAY NORTH KONA

REMARK:

********** DATES **********
SUBMIT DATE: 07/17/95  PLAN APPROVAL DATE: 07/27/95
REVIEWED BY: FU  INSPECTION DATE:  / /
SYSTEM APP'D DATE:  / /

***** TECHNICAL DATA *****
TREATMENT TYPE: 2 SEPTIC TANKS DISPOSAL Via: TRENCHES
USE FOR: GOLF CLUBHOUSE DESIGNED BY: BELT COLLINS
PERCOLATION: 0 min/in  CAPACITY: 1250 gal.

PRESS ANY KEY TO CONTINUE.

IWS DATA PROFILE --- COUNTY OF KONA

TMK #: 7-02-003:005  FILE #: 648-
OWNER: KAUPULEHU RESORT
LOT LOCATION: 2 FIELD OFFICES NORTH KONA

REMARK:

********** DATES **********
SUBMIT DATE: 08/20/90  PLAN APPROVAL DATE: 09/25/90
REVIEWED BY: LJ  INSPECTION DATE:  / /
SYSTEM APP'D DATE: 10/08/90

***** TECHNICAL DATA *****
TREATMENT TYPE: SEPTIC TANK DISPOSAL Via: TRENCH
USE FOR: DOMESTIC DESIGNED BY: BELT COLLINS
PERCOLATION: 1 min/in  CAPACITY: 750 gal.

PRESS ANY KEY TO CONTINUE.
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

REF:CWRM-SS
P. O. BOX 821
HONOLULU, HAWAII 96809
SEP - 5 1995

TO: Honorable Lawrence Miike, Director
    Department of Health
    Attention: Mr. Dennis Tulang, Wastewater Branch
    Mr. William Wong, Safe Drinking Water Branch

    Honorable Kali Watson, Chairman
    Hawaiian Homes Commission

    Honorable Clayton H.W. Hee, Chairperson
    Office of Hawaiian Affairs

    Mr. Milton Pavao, Manager
    Hawaii Department of Water Supply

    Ms. Donna Fay K. Kiyosaki, Manager and Chief Engineer
    County of Hawaii, Department of Public Works

FROM: Michael D. Wilson, Chairperson

SUBJECT: Well Construction Permit Applications for
        Hualalai Saltwater Wells (Well Nos. 4959-01 to 03)
        Pump Installation Permit Application for
        Hualalai Makai Irrigation Well (Well No. 4859-01)

Transmitted for your review and comment is a copy of well construction permit
applications for Hualalai Resort Salt Water Wells (Well Nos. 4959-01 thru 03) and pump
installation permit application for Hualalai Makai Irrigation Well (Well No. 4859-01).

We would appreciate your comments on the attached applications for any conflicts or
inconsistencies with the programs, plans, and objectives specific to your division only. Please
respond by returning this cover memo form by September 14, 1995. We have been requested
to expedite this review.

If you have any questions about these well construction permit applications, please
contact Mr. Charley Icke of the Commission staff at 587-0251.

Response:

We have no objections

Comments attached

Contact Person: Luis A. Manrique
                Phone: 594-1935

Signed: Jon O. De La Haye
        Date: 09/20/95
September 20, 1995

Mr. Charley Ice
State of Hawaii
Department of Land and Natural Resources
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

WELL CONSTRUCTION PERMIT APPLICATION FOR
HUALALAI SALT WATER WELLS (WELL NOS. 4959-01 TO 03)
PUMP INSTALLATION PERMIT APPLICATION FOR
HUALALAI MAKAI IRRIGATION WELL (WELL NO. 4859-01)

We have reviewed the subject applications and have no comments.

Milton D. Pavao, P.E.
Manager
WA
Att.
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P. O. BOX 621
HONOLULU, HAWAII 96809

SEP - 5 1995

TO: Honorable Lawrence Miike, Director
    Department of Health
    Attention: Mr. Dennis Tulang, Wastewater Branch
               Mr. William Wong, Safe Drinking Water Branch

    Honorable Kali Watson, Chairman
    Hawaiian Homes Commission

    Honorable Clayton H.W. Hee, Chairperson
    Office of Hawaiian Affairs

    Mr. Milton Pavao, Manager
    Hawaii Department of Water Supply

    Ms. Donna Fay K. Kiyosaki, Manager and Chief Engineer
    County of Hawaii, Department of Public Works

FROM: Michael D. Wilson, Chairperson
      Commission on Water Resources Management

SUBJECT: Well Construction Permit Applications for
         Hualalai Saltwater Wells (Well Nos. 4959-01 to 03)
         Pump Installation Permit Application for
         Hualalai Makai Irrigation Well (Well No. 4859-01)

Transmitted for your review and comment is a copy of well construction permit
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expedite this review.

If you have any questions about these well construction permit applications, please
contact Mr. Charley Ice of the Commission staff at 587-0251.

Class
Attachment(s)

Response:

( ) We have no objections
( ) Comments attached

Contact Person: ____________________________ Phone: ________________

Signed: ____________________________ Date: ____________________
TO: Honorable Lawrence Miike, Director
    Department of Health
    Attention: Mr. Dennis Tulang, Wastewater Branch
              Mr. William Wong, Safe Drinking Water Branch

Honorable Kali Watson, Chairman
Hawaiian Homes Commission

Honorable Clayton H.W. Hee, Chairperson
Office of Hawaiian Affairs

Mr. Milton Pavao, Manager
Hawaii Department of Water Supply

Ms. Donna Fay K. Kiyosaki, Manager and Chief Engineer
County of Hawaii, Department of Public Works

FROM: Michael D. Wilson, Chairperson
      Commission on Water Resources Management

SUBJECT: Well Construction Permit Applications for
         Hualalai Saltwater Wells (Well Nos. 4959-01 to 03)
         Pump Installation Permit Application for
         Hualalai Makai Irrigation Well (Well No. 4859-01)

Transmitted for your review and comment is a copy of well construction permit
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respond by returning this cover memo form by September 14, 1995. We have been requested to
expedite this review.

If you have any questions about these well construction permit applications, please
contact Mr. Charley Ice of the Commission staff at 587-0251.

Class
Attachment(s)

Response:

☐ We have no objections
☐ Comments attached

Contact Person: Bill Wong Phone: 5864288
Signed: Bill Wong Date: 9/7/95
Ms. Kim Richards  
Hualalai Development Co.  
P.O. Box 1119  
Kailua-Kona, HI 96745

Dear Ms. Richards:

Well Construction Permit Applications  
Hualalai Saltwater Wells (Well Nos. 4959-01 thru 03)  
Pump Installation Permit Application  
Hualalai Makai Irrigation Well (Well No. 4859-01)

We acknowledge receipt, on July 24, 1995, of your completed well construction  
permit applications for Hualalai Resort Salt Water Wells 1, 2, and 3 (Well Nos. 4959-01  
 thru 03), and pump installation permit application for Hualalai Makai Irrigation Well (Well  
No. 4859-01. You can expect your application to be processed within ninety (90) days  
from the date of receipt.

We have been informed by your consultant, Mr. Tom Nance, that due to ongoing  
construction at these well sites, you are requesting an expedited processing of the Saltwater  
Well permits. As required by §13-168-12(c):

"The Commission may issue or cause to be issued a permit only if the proposed construction  
complies with all applicable laws, rules, and standards. Before an application for a well  
construction permit is approved by the department, the Commission shall cause such  
application to be reviewed by the Department of Health [DOH] for compliance with their  
rules and standards concerning, among other things, the appropriateness of the well location."

We are requesting DOH to respond by September 14, 1995, which is a shorter period  
than is normally required. You may wish to call DOH, Mr. Tom Arizumi, at 586-4304, to help  
expedite their review.

If you have any questions about your well construction permit applications, please  
contact Mr. Charley Ice of the Commission staff at 587-0251.

Sincerely,

RAE M. LOUI  
Deputy Director

Cc: Kamehameha Schools/Bishop Estate  
Water Resources International, Inc.  
Tom Nance, TNWRE
TO: Honorable Lawrence Miike, Director
   Department of Health
   Attention: Mr. Dennis Tulang, Wastewater Branch
             Mr. William Wong, Safe Drinking Water Branch

   Honorable Kali Watson, Chairman
   Hawaiian Homes Commission

   Honorable Clayton H.W. Hee, Chairperson
   Office of Hawaiian Affairs

   Mr. Milton Pavao, Manager
   Hawaii Department of Water Supply

   Ms. Donna Fay K. Kiyosaki, Manager and Chief Engineer
   County of Hawaii, Department of Public Works

FROM: Michael D. Wilson, Chairperson
       Commission on Water Resources Management

SUBJECT: Well Construction Permit Applications for
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We would appreciate your comments on the attached applications for any conflicts or inconsistencies with the programs, plans, and objectives specific to your division only. Please respond by returning this cover memo form by September 14, 1995. We have been requested to expedite this review.

If you have any questions about these well construction permit applications, please contact Mr. Charley Ice of the Commission staff at 587-0251.

Response:

( ) We have no objections
( ) Comments attached

Contact Person: ______________________________________ Phone: ________________

Signed: ______________________________________ Date: ________________
TO: Don Hibbard, Administrator  
Division of Historic Preservation  
William Devick  
Division of Aquatic Resources  
Marjorie Ziegler  
Sierra Club Legal Defense Fund  
David Martin  
Native Hawaiian Advisory Council  

FROM: Rae M. Loui, Deputy Director  
Commission on Water Resource Management  

SUBJECT: Well Construction Permit Applications for  
Hualalai Saltwater Wells (Well Nos. 4959-01 to 03)  
Pump Installation Permit Application for  
Hualalai Makai Irrigation Well (Well No. 4859-01)  

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Please respond by returning this cover memo form by September 14, 1995. We have been requested to expedite this review.  

If you have any questions about these well construction permit applications, please contact Mr. Charley Ice of the Commission staff at 587-0251.  

Response:  
( ) We have no objections  
( ) Comments attached  

Contact Person: ____________________________ Phone: ______________  
Signed: ____________________________ Date: ______________
To: ROY HARDY - CWRM
From: Tom Nance
Subject: HUALALAI RESORT SALTWATER WELL

Home are in Parcel C; correct TKM's are:

No. 1 7-2-03:4
No. 2 7-2-03:4
No. 3 7-2-03:5

Are locations on the TMK we submitted might be a little misleading.

680 Ala Moana Boulevard, Suite 406 • Honolulu, Hawaii 96813-5411 • Phone: (808) 537-1141 • Fax: (808) 538-7757
Mr. Mike Wilson
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii
P. O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Wilson:

Revision of Well Design For Saltwater Circulation
Wells at Hualalai Resort

By letter dated July 21, 1995, I submitted combined well construction and pump installation permit applications for three saltwater circulation wells to be located in the nearshore area of the Hualalai Resort in North Kona, Hawaii. The wells described in those applications were horizontal, skimming-type wells. Based on costs, spatial constraints, and the desire for the wells to produce more saline water, Hualalai Resort has decided to use drilled wells rather than skimming-type wells. The enclosed sketch illustrates the typical well section. Locations of the three wells, their pumping rates, and their proposed use remain the same; only the construction of the well itself is being revised.

Owing to the ongoing construction of the Resort around each of the well sites, it is critically important to drill these wells as soon as possible. Otherwise, access for the drill rig will no longer be possible. For this reason, we respectfully request expeditious review and processing of these applications. If you have any questions, please feel free to call. Thank you for your assistance.

Sincerely,

Tom Nance

Enclosure

cc: John Mansour - HDC
PROPOSED SALTWATER CIRCULATION WELLS
AT HUALALAI RESORT
AUGUST 7, 1995
To: Ed Sokola - CWRM
From: Tom Nance
Subject: Saltwater Wells @ Hualalai Resort

These are the wells which we hope to have approved on the Commission September agenda. Any help you can provide would be appreciated.

Tom Nance
August 7, 1995
95TN-203 (95-10)

Mr. Mike Wilson
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii
P. O. Box 821
Honolulu, Hawaii 96809

Dear Mr. Wilson:

Revision of Well Design For Saltwater Circulation
Wells at Hualalai Resort

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Sincerely,

Tom Nance

Enclosure

cc: John Mansour - HOC
PROPOSED SALTWATER CIRCULATION WELLS
AT HUALALAI RESORT
AUGUST 7, 1995
## DEPARTMENT OF LAND AND NATURAL RESOURCES

**DEPARTMENT NO.:**

**UAC OR ATTACHED WORKSHEET**

**DATE:** AUG 25 1995

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**TOTAL** $100.00

**MARKS:**

- **LINE (1):** Hualalai Makai Irrigation Well
- **LINE (2):** Hualalai Resort - Saltwater Well No. 1
- **LINE (3):** Hualalai Resort - Saltwater Well No. 2
- **LINE (4):** Hualalai Resort - Saltwater Well No. 3

**NAME/DESCRIPTION (WANG INPUT):**

- Tom Nance Water Resource Engineering
- Tom Nance Water Resource Engineering
- Tom Nance Water Resource Engineering
- Tom Nance Water Resource Engineering
July 21, 1995

** Twenty-five and 00/100 **

** DOLLARS ** $25.00 *

TO THE ORDER OF

Department of Land and Natural Resources

DATE | DESCRIPTION | AMOUNT
-----|-------------|--------
7-21-95 | Job No. 95-10: Hualalai Resort - Saltwater Well No.1 Filing Fee For Well Construction and Pump Installation Permit Applications | $25.00
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MARKS:  
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LINE (2) Hualalai Resort - Saltwater Well No. 1  
LINE (3) Hualalai Resort - Saltwater Well No. 2  
LINE (4) Hualalai Resort - Saltwater Well No. 3
**PAY**  
**Twenty-five and 00/100**  
**Dollars**  

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**TO**  
**THE ORDER OF**  
Department of Land and Natural Resources

---

**DATE** | **DESCRIPTION** | **AMOUNT**  
---|---|---  
7-21-95 | Job No. 95-10: Hualalai Resort - Saltwater Well No. 2 Filing Fee For Well Construction and Pump Installation Permit Applications | $25.00
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Mr. Mike Wilson  
Commission on Water Resource Management  
Department of Land and Natural Resources  
State of Hawaii  
P. O. Box 621  
Honolulu, Hawaii  96809  

Dear Mr. Wilson:

Well Construction and Pump Installation Permit Applications For  
Irrigation and Saltwater Circulation Wells at Hualalai Resort

Enclosed are a pump installation permit application for Well 4859-01 and three combined well construction and pump installation permit applications for saltwater circulation wells to be located within Hualalai (formerly Kaupulehu) Resort in North Kona, Hawaii. Well 4859-01 is an existing brackish well located just makai of Queen Kaahumanu Highway. It would be used to supplement the supply from the Resort's two mauka irrigation wells (State Nos. 4757-01 and -02) to irrigate the Resort's golf course and roadway landscaping.

The three saltwater circulation wells would be located in the lowlying, nearshore area of the Resort. These would be used to speed up the natural turnover rate in three brackish to saline, nearshore water features, thereby improving water clarity and limiting algae growth. Drawings of the proposed skimming-type well construction are enclosed with the applications.

If you have any questions of these applications, feel free to call Roger Harris at Hualalai Development Company (808-325-0808) or me.

Sincerely,

Tom Nance

Enclosures

cc: Roger Harris - HDC
**V-2**

**TNWRE INC.**

**DBA TOM NANCE**

**WATER RESOURCE ENGINEERING**

680 ALA MOANA BLVD., STE. 406  808-537-1141

HONOLULU, HI  96813

---

**Department of Land and Natural Resources**

---

**First Hawaiian Bank**

1120 BISHOP STREET

HONOLULU, HAWAII 96813

---

**July 21, 1995**

---

**PAY**

**DOLLARS $25.00**

---

**DETACH AND RETAIN THIS STATEMENT**

**THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW.**

**IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.**

---

**DE LUXE FORM WVC-3 V-2**

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PAY ** Twenty-five and 00/100 ** DOLLARS $ *25.00*

TO THE ORDER OF Department of Land and Natural Resources

July 21, 1995

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW.
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.

DELUXE FORM WVC-3 V-2

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PAY ** Twenty-five and 00/100 ** DOLLARS $25.00*

TO THE ORDER OF
Department of Land and Natural Resources

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW.
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.

DELUXE FORM WVC-3 V-2

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State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

APPLICATION FOR PERMIT
- Well Construction 50c. Pump Installation

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 521, Honolulu, Hawaii 96813. Application must be accompanied by a non-refundable filing fee of $25.00 payable to the Dept. of Land and Natural Resources. The Commission may accept incomplete applications. For assistance, call the Regulation Branch at 587-0225.

1. APPLICANT: (may be a, b, or c, but all must be filled in)
(a) WELL OWNER
   Firm/Name: Hualalai Development Company
   Contact Person: Kim Richards
   Address: P.O. Box 119
   Kailua-Kona, Hawaii 96745

(b) LANDOWNER: Kamehameha Schools/BP Bishop Estate
   Firm/Name: Kamehameha Schools/BP Bishop Estate
   Contact Person: P.O. Box 119
   Address: 597 South King Street - Suite 200
   Honolulu, Hawaii 96813

(c) CONTRACTOR: To Be Competitively Bid
   Firm/Name: Contractor's C-57 License No.
   Address: ____________________________

2. WELL LOCATION/NAME:
   Saltwater Well No. 3
   Island: Hawaii
   Address: No street address; makai of Queen Kaahumanu Highway
   Tax Map Key: 7-2-023:5

   (Attach a USGS map, scale 1"=2000', and a property tax map showing well location referenced to established property boundaries.)

3. (a) PROPOSED WORK:
   - Drill New Well
   - Modify Existing Well
   - Install New Pump
   - Deepen
   - Replace Pump
   - Abandon/Seal

   * Be sure to complete and submit well abandonment report upon completion of work.

(b) WELL TYPE:
   - Dug
   - Bored
   - Driven
   - Drilled
   - Radial

   Is this well a part of a battery of wells?
   - Yes
   - No

   (Briefly describe and fill in the diagram on the back of this form.)

4. PROPOSED PUMP INFORMATION:
   Rated Pump Capacity: 2 @ 350 gallons per minute
   Motor: 5 HP

5. PROPOSED USE:
   - Municipal (including hotels, stores, etc.)
   - Domestic (individual, noncommercial water sys.)
   - Irrigation (crop)
   - Seawater Pond Circulation
   - Industrial
   - Other (explain)
   - Rural
   - Conservation

   (If more space is needed, continue below under remarks, explanations.)

6. (a) PROPOSED AMOUNT OF WITHDRAWAL:
   1,000,000 gallons per day

(b) METHOD OF FLOW MEASUREMENT:
   - Flow-meter
   - Open-pipe
   - Office Plate
   - Well

7. PENDING ACTIONS:
   - CDUA
   - SMA
   - EIS
   - EA
   - NONE
   - Other (explain)

8. REMARKS, EXPLANATIONS:
   See Reverse Side

NOTE: Signing below indicates that the applicant understands that, if the permit is not issued within two (2) years of the approval date, in addition, the contractor shall submit to the Commission a well completion report, subject to completion date of the permit work. The applicant also understands that monthly water use data shall be submitted to the Commission.

Well Owner: Hualalai Development Co.
Landowner: BP Bishop Estate
Contractor: ____________________________

Signature: ____________________________
Date: 7-21-95

For Official Use Only
Date Received: 7-21-95
Date Accepted: ____________________________
Field Checked By: ____________________________
Date: ____________________________

Longitude: ____________________________
Latitude: ____________________________
Aquifer System Name: ____________________________
State Well No.: ____________________________
8. REMARKS, EXPLANATIONS (cont.):

Well water will be used to increase the natural circulation rate in the Resort's natural and man-made nearshore ponds, thereby improving water clarity.

9. PROPOSED WELL SECTION
(See Attached Well Plan and Section)

*Approximate elevation at time of filing application. Ground elevation above mean sea level (msl) by a surveyor licensed by the State must be submitted at start of construction. Final elevations of well components shall be submitted in the well completion/well abandonment reports.
## APPLICATION FOR PERMIT

**Well Construction**  
**Pump Installation**

7-6-95  
95-10

### Instructions:
- Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 921, Honolulu, Hawaii 96820. Application must be accompanied by a non-refundable filing fee of $25.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 587-0225.

### 1. APPLICANT:
- **(may be a, b, or c, but all must be filled in)**
  - **(a) WELL OWNER:** Hualalai Development Company  
    - Firm/Name: Hualalai Development Company  
    - Contact Person: Kim Richards  
    - Address: P.O. Box 1119  
    - Kailua-Kona, Hawaii 96745  
    - Ph: 808-325-0808
  - **(b) LANDOWNER:** Kamehameha Schools/BP Bishop Estate  
    - Firm/Name: Kamehameha Schools/BP Bishop Estate  
    - Contact Person:  
    - Address: 369 South King Street - Suite 208  
    - Honolulu, Hawaii 96813  
    - Ph: 523-6200
  - **(c) CONTRACTOR:** To Be Competitively Bid  
    - Firm/Name:  
    - Address:  
    - Contractor's C-57 License No:  

### 2. WELL LOCATION/NAME:
- **Salwater Well No. 2**  
- Island: Hawaii  
- Address: No street address; makai of Queen Kaahumanu Highway  
- Tax Map Key: 7-2-03:4  
- (Attach a USGS map, scale 1"=0.007, and a property tax map showing well location referenced to established property boundaries.)

### 3. (a) PROPOSED WORK:
- **Drill New Well**  
- **Modify Existing Well**  
- **Install New Pump**  
- **After Location**  
- **Replace Pump**  
- **Deepen**  
- **Abandon/Seal**

### 3. (b) WELL TYPE:
- **Dug**  
- **Bored**  
- **Driven**  
- **Drilled**  
- **Radial**

- **Is this well a part of a battery of wells?**  
- **Yes**  
- **No**

(Briefly describe and fill in the diagram on the back of this form.)

### 4. PROPOSED PUMP INFORMATION:
- **Rated Pump Capacity:** 2 @ 250 gallons per minute
  - **Pump Type:**  
    - Deep Well Turbine  
    - Submersible  
    - Centrifugal  
  - **Rotation:**  
    - Rotary  
    - Rotary-Displacement  
    - Rotary-Gear  
  - **Propulsion Type:**  
    - Submersible  
    - Reciprocating  
    - Impulse  
  - **Motor:**  
    - Diesel  
    - Gas  
    - Electric, rated horsepower of: 5 HP

### 5. PROPOSED USE:
- **Municipal (including hotels, stores, etc.)**  
- **Domestic (individual, noncommercial water sys.)**  
- **Irrigation (crop)**  
- **Seawater Pond Circulation**

- **State Land Use District:**  
  - Urban  
  - Agriculture

- **County Zoning (describe):**  
  - Urban  
  - Agriculture

(If more space is needed, continue below under remarks, explanations.)

### 6. (a) PROPOSED AMOUNT OF WITHDRAWAL:
- 720,000 gallons per day

### 6. (b) METHOD OF FLOW MEASUREMENT:
- **Flow-meter**  
- **Open-pipe**  
- **Orifice Plate**  
- **Weir**

### 7. PENDING ACTIONS:
- **CDUA**  
- **SMA**  
- **EIS**  
- **EA**
  - **NONE**  
  - **Other (explain)**

### 8. REMARKS, EXPLANATIONS:
- See Reverse Side

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**NOTE:** Signing below indicates that the applicant understands that, if the permit requested is granted by the Commission on Water Resource Management, the proposed work is to be completed within two (2) years of the approval date. In addition, the contractor shall submit to the Commission a well completion report, well abandonment report, or both, within 30 days after completion date of the permitted work. The applicant also understands that monthly water use data shall be submitted to the Commission. The applicant further understands that approval of the proposed permit will not constitute a determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

**Well Owner**  
Hualalai Development Co.  
Signature:  
Date: 7-21-95

**Landowner**  
Kamehameha Schools/BP Bishop Estate  
Signature:  
Date: 7-21-95

**Contractor**  
Signature:  
Date: 7-21-95
8. REMARKS, EXPLANATIONS (cont.):

Well water will be used to increase the natural circulation rate in the Resort's natural and man-made nearshore ponds, thereby improving water clarity.

9. PROPOSED WELL SECTION
(See Attached Well Plan and Section)

Elevation at top of casing

\[ \text{ft., msl.} \]

Cement Grout: \[ \text{ft.} \]

Rock Packing: \[ \text{ft.} \]

Hole Diameter: \[ \text{in.} \]

Total Depth: \[ \text{ft.} \]

Ground Elevation: \[ 9 \text{ ft., msl}^* \]

Solid Casing:

<table>
<thead>
<tr>
<th>Material</th>
<th>Length</th>
<th>Diameter</th>
<th>Wall thickness</th>
</tr>
</thead>
</table>

Casing: □ Perforated □ Screen

Material

Length

Diameter

Wall thickness

Openings \[ \text{sq. in.} / \text{L.F.} \]

Open Hole:

Length

Diameter

*Approximate elevation at time of filing application. Ground elevation above mean sea level (msl) by a surveyor licensed by the State must be submitted at start of construction. Final elevations of well components shall be submitted in the well completion/well abandonment reports.
State of Hawaii

COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

APPLICATION FOR PERMIT

7-6-95

1. APPLICANT: (may be a, b, or c, but all must be filled in)
   (a) WELL OWNER
   Firm/Name: Hualalai Development Company
   Contact Person: Kim Richards
   Address: P.O. Box 1119
   Kailua-Kona, Hawaii 96745
   (b) LANDOWNER: Kamehameha Schools/BP Bishop Estate
   Firm/Name: Kamehameha Schools/BP Bishop Estate
   Contact Person: Lisa
   Address: Suite 200
   Honolulu, Hawaii 96813
   (c) CONTRACTOR
   Firm/Name: To Be Competitively Bid
   Address: Contractor's C-57 License No.

2. WELL LOCATION/NAME:
   Hualalai Resort - Saltwater Well No. 1
   Island Hawaii
   Address: No street address; makai of Queen Kaahumanu Highway
   Tax Map Key: 7-2-03:4

3. (a) PROPOSED WORK:
   • Drill New Well
   • Modify Existing Well
   • Install New Pump
   • Replace Pump
   • Deepen
   • * Abandon/Seal
   * Be sure to complete and submit well abandonment report upon completion of work.

(b) WELL TYPE:
   • Dug
   • Bored
   • Driven
   • Drilled
   • Radial
   • (See enclosed well cross section)

4. PROPOSED PUMP INFORMATION:
   Rated Pump Capacity: 2 @ 250 gallons per minute
   Pump Type:
   • Deep Well Turbine
   • Centrifugal
   • Submersable
   • Rotary
   • Rotary-Displacement
   • Rotary-Gear
   • Propeller
   • Reciprocating
   • Impulse
   Motor:
   • Diesel
   • Gas
   • Electric
   • horsepower of 5 HP

5. PROPOSED USE:
   • Municipal (including hotels, stores, etc.)
   • Military
   • Domestic (individual, noncommercial water use)
   • Industrial
   • Irrigation (crop)
   • Other (explain)
   • Seawater Pond Circulation
   State Land Use District:
   • Urban
   • Agriculture
   County Zoning (describe)

6. (a) PROPOSED AMOUNT OF WITHDRAWAL:
   720,000 gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   • Flow-meter
   • Open-pipe
   • Office Plate
   • Weir

7. PENDING ACTIONS:
   • CDUA
   • SMA
   • EIS
   • EA
   • NONE
   • Other (explain)

8. REMARKS, EXPLANATIONS:
   See Reverse Side

NOTE: Signing below indicates that the applicant understands that, if the permit requested is granted by the Commission on Water Resource Management, the proposed work is to be complete within two (2) years of the approval date. In addition, the contractor shall submit to the Commission a well completion report, well abandonment report, or both, within 30 days after completion date of the permitted work. The applicant further understands that monthly water use data shall be submitted to the Commission. The applicant further understands that upon completion of the proposed work, shall not determine the determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

Well Owner: Hualalai Development Co.
Landowner: Kamehameha Schools/BP Bishop Estate
Contractor:

Signature: 1-7-95
Date: 7-21-95

For Official Use Only:
Date Received: 7-14-95
Date Accepted: 7-21-95
Field Checked By: __________________________
Date: __________________________

Longitude: 156.564434
Latitude: 20.901074
State Well No. 532-95-02
8. REMARKS, EXPLANATIONS (cont.):

Well water will be used to increase the natural circulation rate in the Resort's natural and man-made nearshore ponds, thereby improving water clarity.

9. PROPOSED WELL SECTION
(See Attached Well Plan and Section)

*Approximate elevation at time of filing application. Ground elevation above mean sea level (msl) by a surveyor licensed by the State must be submitted at start of construction. Final elevations of well components shall be submitted in the well completion/well abandonment reports.
Kaupulehu Saltwater Well No. 3
Kaupulehu Saltwater Well No. 1
Kaupulehu Saltwater Wall No. 2
Kaupulehu Mekai Irrigation Well No. 1 (4859-01)
Kaupulehu Resort Observation Well (4858-01M)
PUMP STATION PLAN

SCALE: 1/2" = 1'-0"
### CHECKLIST

**Type of Permit:**  
- Well Construction  
- Pump Installation  
- Water Use Required

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
</table>
| Well Name                     | Hawaii  
| Well No.                      | 1959-01-03  
| Island                        | Hawaii  
| Applicant                     | Cawas varied to  
| Landowner                     | Kauai      
| Consultant                    | TMK  
| Appl Recd                     | 7/24/95  
| Mapped/#                      | 8/2/95  
| Acknowlgmt                    | SEP - 5, 1995  
| Fee Depos                      | SEP - 5, 1995  
| DoH/Drink Water               | SEP - 5, 1995  
| Wastewater                    | SEP - 5, 1995  
| Hist. Preserv                 | SEP - 5, 1995  
| Aquat Res                     | SEP - 5, 1995  
| OHA                           | SEP - 5, 1995  
| DHHL                          | SEP - 5, 1995  
| Honolulu BWS                  | SEP - 5, 1995  
| Maui DoW                      | SEP - 5, 1995  
| Kauai DoW                     | SEP - 5, 1995  
| Hawaii DoW                    | SEP - 5, 1995  
| PW                            | SEP - 5, 1995  
| SCLDF                         | SEP - 5, 1995  
| Com:                          | N/A    

**Comments Recd**

**Copies Sent for Review Sent**

- DoH/Drink Water: SEP - 5, 1995  
- Wastewater: SEP - 5, 1995  
- Aquat Res: SEP - 5, 1995  
- OHA: SEP - 5, 1995  
- DHHL: SEP - 5, 1995  
- Honolulu BWS: SEP - 5, 1995  
- Maui DoW: SEP - 5, 1995  
- Kauai DoW: SEP - 5, 1995  
- Hawaii DoW: SEP - 5, 1995  
- PW: SEP - 5, 1995  
- SCLDF: SEP - 5, 1995  
- Com: SEP - 5, 1995  

**Bulletin to Agenda**

**Submittal to Appl**

**CWRM Appr Deny**

**Permit/Notice to Appl**

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