Portion of Kiholo Quad Map

1" = 2000'

Hualalai Resort Beach Pool Well
Hualalai Resort Main Pool Well
Hualalai Resort Palm Grove Well
Kahwai Kaupulehu Salt Water Wells no. 3 & 4
Hualalai Resort Fitness Center Well
Kuakini
Kukio Bay

Kaupulehu Resort

Kaupulehu Salt Water Wells no. 1 & 2

Water Tank

Kaupulehu Makai Irrigation Well No. 1 (4859-01)

Kaupulehu Resort Observation Well (4859-01M)
January 9, 2009

Ref: 4959-08.wap

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

Dear Mr. Couch:

Well Abandonment Permit
Fitness Center Well (Well No. 4959-08)

Enclosed are two (2) copies of your approved Well Abandonment Permit for the captioned well(s) which authorizes well abandonment/sealing activities. As part of the Chairperson's approval, the following special conditions were added and are part of your permit under Permit Condition 7:

Special Conditions

1. No special conditions

To validate your permit, please sign both permit originals and return one for our files.

IMPORTANT - The contractor is responsible for all conditions of the permit. This includes ensuring that the submission of a completed Well Abandonment Report form (enclosed) within sixty (60) days after the well construction work is completed. Be advised that you may be subject to fines of up to $5000 per day for any violations of your permit conditions.

If you have any questions, please call Ryan Imata of the Commission staff at [redacted] or toll-free at [redacted] (Hawaii), extension 70255.

Sincerely,

[Signature]

LAURA H. THIELEN
Chairperson

Enclosures

c: Four Seasons Resort Hualalai
   Kamehameha Schools
   USGS
   Hawaii Department of Water Supply
WELL CONSTRUCTION PERMIT TO ABANDON/SEAL

Fitness Center Well, Well No. 4959-08

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 abandonment/sealing of Fitness Center Well (Well No. 4959-08), Hawaii, TMK 7-2-010:004, 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, P.O. Box 621, Honolulu, Hawaii 96809, shall be notified in writing before any work covered by this permit commences.

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 application is incorporated into this permit by reference and is 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.

4. The Well Abandonment Report form shall be submitted to the Commission on Water Resource Management within sixty (60) days after completion of the work. Please contact staff or visit our website at www.state.hi.us/dlnr/cwrm for the current form.

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

6. The sealing shall be completed within two (2) years.

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

Date of Approval: November 7, 2008
Expiration Date: None

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.

Contractor's Signature: ___________________________ License # 23094 Date: ____________________________
Printed Name: ___________________________ Firm or Title: ___________________________

Please sign both copies of this permit, return one to the Chairperson, and retain the other for your records.
STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION
PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed applications with attachments to the Commission on Water Resource Management, P.O. Box 381, Honolulu, Hawaii 96813. Application must be accompanied by a non-refundable fee of $50.00 payable to the Dept. of Land and Natural Resources. The Commission may accept incomplete applications. For assistance, call the Regulation Branch at 808-586-4324 for further information and updates to the application form, visit http://www.hawaii.gov/comwr.

WELL LOCATION INFORMATION

<table>
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<tr>
<th>STATE-WWT # (if any)</th>
<th>2 WELL NAME</th>
<th>ISLAND</th>
<th>1 NR</th>
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<tr>
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<td></td>
<td>Hawai'i</td>
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The following must be attached before the application is processed as complete:
1. Map of the proposed site
2. Application form with necessary signatures
3. Proof of ownership
4. Map showing property line arrangements
5. Photograph of the proposed well site

For further details, please refer to the application form.

PROPOSED WELL CONSTRUCTION

1. Proposed Location of Well
2. Completion Type
   - New Well
   - Existing Well
   - Reuse of Existing Well

PROPOSED PUMP INSTALLATION

10. Proposed Pumping Rate, gpm (gallons per minute)
11. Method of flow measurement
   - Hood
   - Other (please specify)

OTHER LEGAL REQUIREMENTS

7. Conservation District Use Permit (CDUP)
   - Required, CDUP
   - Unrequired, CDUP

22. Special Management Area Permit (SMAP)
   - Required, SMAP
   - Unrequired, SMAP

23. Historic Preservation Division (HPD) of the Department of Land and Natural Resources
   - Required
   - Unrequired

24. Well Driller (Must be filed out and attached for construction)

25. Pump Installer (Must be filed out and attached for installation)

3. Landowner's Contact Information
   - Name
   - Address
   - Phone Number
   - Email

4. Operator's Contact Information
   - Name
   - Address
   - Phone Number
   - Email

Signed:

Date: 10/26/2007

WCR Application Form 53-26-2007
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR NEW APPLICATIONS

FROM: RYAN
DATE: 26-Sep-08
SUSPENSE DATE: 3-Oct-08

TO: 
INIT. TO: INIT. FOR: PLEASE:
CHING, F. KUNIMURA, I. 1 Approval See Me
FUJI, N. NAKAMA, L. 3 Signature
GOODING, K. OHYE, M. 4 Information
1 HARDY, R. SAKODA, E. 
HIGA, D. SWANSON, S. 
2 HOAGBIN, S. UYENO, D. 
ICE, C. YODA, K. 
IMATA, R. YOSHINAGA, M. 
3 KAWAHARA, K. 

WELL NUMBER 4959-08 WELL NAME Fitness Center WUP Number 

☐ WELL CONSTRUCTION ☐ PUMP INSTALLATION ☐ WUPA

ATTACHMENTS FOR APPLICATION PROCESSING - Both applicant & staff generated
1 TRANS. LETTER
2 PERMIT PROCESS TABLE
3 CWRM MAP
4 APPL. FORM (11 COPIES)
5 USGS MAPS (11 COPIES)
6 TAX MAPS (11 COPIES)
7 PARCEL OWNER VERIF.
8 CONTRACTOR VERIF.
9 ALL INFO FILLED IN
10 BACKGROUND CHECK
11 $25 FEE DEPOSIT SLIP
12 DHP/CDUP/SMA pre-screen

MLS PRINTOUT
DCCA LICENSE SCREEN PRINTOUT
(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

Accept: 12/25/08
LOA -

CBA
October 21, 2008

Mr. Damien Souza
Four Seasons Resort Hualalai
74-100 Kaupulehu Drive
Kailua-Kona, HI 96740

Dear Mr. Souza:

Letter of Assurance for Well No. 4959-08

We acknowledge receipt of your completed Well Abandonment Permit application on September 25, 2008. We have completed the review process for your Well Abandonment Permit application and the permit is ready to be issued. However, in accordance with the State Water Code, §174C-84(a), the permit can only be issued to a licensed contractor and, to date, one has not been identified for your well.

Once you have selected a licensed contractor, please have the contractor sign and return to the Commission a copy of the original application, upon which a permit will be immediately issued provided that the following conditions are met:

1. The contractor has no outstanding issues with the Commission.
2. There are no significant changes to the application.
3. There have been no significant changes to applicable laws, rules or regulations since the application date.
4. There have been no significant changes to hydrogeologic conditions since the application date.

If you have any questions, please contact Ryan Imata of the Commission staff or toll-free at Extension 70255.

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director

RI:ss

c: Tom Nance Water Resource Engineering
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<td>TOTAL $150.00</td>
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REMARKS:  
LINE (1) Pink Hibiscus Well  
LINE (2) Pele Well  
LINE (3) Sam Well  
LINE (4) Marie Well  
LINE (5) Brunem Well  
LINE (6) Fitness Center Well (Well No. 4959-08)  
LINE (7)  
LINE (8)  
LINE (9)  
LINE (10)  

Dear Mr. Kawahara:

Permit Application to Abandon/Seal the Fitness Center Well
(State No. 4959-08) in North Kona, Hawaii

Attached is an application to seal/abandon Well 4959-08, $25 filing fee, and other attachments. Since the drilling contractor has not been selected yet, we understand that a Letter of Assurance would be issued pending the contractor's selection.

If you need additional information, feel free to call me or Damien Souza at the Four Seasons Resort Hualalai. Thank you for your attention to this matter.

Sincerely,

Tom Nance

cc: Damien Souza

Attachments
Application for a Well Construction / Pump Installation Permit

**STATE OF HAWAI‘I**

**DEPARTMENT OF LAND AND NATURAL RESOURCES**

COMMISSION ON WATER RESOURCE MANAGEMENT

APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 10 copies and 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 (808) 586-0542. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cm.

**WELL LOCATION INFORMATION**

1. STATE WELL NO. (if already assigned) 4950-08

2. WELL NAME Fitness Center Well

3. ISLAND Hawaii

4. TMK 7 2 10 4

The following must be attached before this application is accepted as complete:

- Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quadrangle map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

5. WELL OPERATOR’S NAME/COMPANY Four Seasons Resort Hualalai

6. LANDOWNER’S NAME/COMPANY Kamehameha Schools

7. LANDOWNER’S CONTACT Jeffery Mau

Well Operator’s Mailing Address

74-100 Kaupulehu Drive

Kailua-Kona, Hawaii 96740

Well Operator’s Phone: 885-3441

Well Operator’s Fax: 885-3441

Well Operator’s E-mail: darrin.souza@fourseasons.com

Landowner’s Name: Damien Souza

Landowner’s Contact: Damien Souza

Landowner’s Address: 567 South King Street - Suite 200

Honolulu, Hawaii 96813

Landowner’s Phone: (808) 537-8990

Landowner’s Fax: (808) 537-8455

Landowner’s E-mail: jemau@kebe.edu

**PROPOSED WELL CONSTRUCTION**

7. Proposed Work

- Construct New Well
- Modify Existing Well
- Abandon/Seal Well

8. Construction Type

- Drilled
- Dug
- Shaft
- Tunnel

9. Is this well part of a battery of wells? ☐ Yes ☐ No

10. Proposed Work

- Install New Pump
- Replace Pump

11. Proposed Pumping Rate, gpm (gallons per minute)

12. Proposed Amount of Withdrawal, gpd (gallons per day)

13. Method of flow measurement

- Flowmeter
- Other (explain)

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

15. Municipal (water systems serving greater than 25 individuals or 15 service connections)

16. Domestic Number of units to be served: 

17. Industrial (describe)

18. Irrigation (describe crop and no. of acres)

19. Military (describe)

20. Other (describe) Saltwater well for pool heating system

**OTHER LEGAL REQUIREMENTS** If required, Items 21. and 22. must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)

- Well is in Conservation District ☐ Required, CDUP date approved
- Not Required (attach documentation from OCLL)
- I have not checked with OCLL regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.

22. Special Management Area Permit (SMAP)

- Required, SMA date approved
- Not Required (attach documentation from applicable County agency)
- I have not checked with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources

- I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
- I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued. Additionally, the history of past land use is attached.

Additional remarks, explanations, etc. (attach additional sheet if more space is needed)

Abandon saltwater well used for pool heating system.

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $500/day.

24. WELL DRILLER (Must be filled out if application is for Well Construction)

Licensee business name C-57 License No.

Signature Print Date

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)

Licensee business name C-57/C-57a/A License No.

Signature Print Date

WPCI Application Form 02/26/2007
PROPOSED WELL SECTION

(Please attach schematic if different from diagram provided below)

Total Depth: 26 ft.

Cement Grout: 19 ft. (min. 70% of distance from ground elevation to top of water surface or 500 ft. whichever is less.)

Annular space between hole and casing (1.5" for positive displacement, 3" for other methods):

Rock or Gravel Packing:

Material:

- Crushed Basalt
- Rounded Gravel

Estimated Water Level Elevation:

+1 ft. msl*

Solid Casing: (± 90% x (Ground Elev.-Water Level Elev))

Total Length: 19 ft.
Nominal Diameter: 6 in.
Wall Thickness: 0.432 in.
Bottom Elevation: -3 ft. msl*

Open Casing:

- Perforated
- Screen

Total Length: 7 ft.
Nominal Diameter: 6 in.
Wall Thickness: 0.432 in.
Bottom Elevation: -10 ft. msl*

Grouting method:

- Positive displacement
- Other

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or,

Bottom Elevation of Well Limit = \( \frac{3}{4} \times \text{Water Elevation} \)

Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = \( \frac{3}{4} \times (+2) = +1.5 \) ft.

Solid Casing Material:

Carbon Steel: compliant with (check one or more):
- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139

Stainless Steel: compliant with (check one or more):
- ASTM A409 (production wells)
- ASTM A312 (monitor wells)

ABS Plastic: conforming to ASTM F480 and ASTM D1527: (check one):
- Schedule 40
- Schedule 80

PVC Plastic: conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one):
- Schedule 40
- Schedule 80
- Schedule 120

Thermoset Plastic: (check one):
- Filament Wound Resin Pipe conforming to ASTM D2996
- Centrifugally Cast Resin Pipe conforming to ASTM D2997
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:

Carbon Steel: compliant with (check one or more):
- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139

Stainless Steel: compliant with (check one or more):
- ASTM A409 (production wells)
- ASTM A312 (monitor wells)

ABS Plastic: conforming to ASTM F480 and ASTM D1527: (check one):
- Schedule 40
- Schedule 80

PVC Plastic: conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one):
- Schedule 40
- Schedule 80
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- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

Fitness Center Well

WCPI Application Form 02/28/2007
**COMMISSION ON WATER RESOURCE MANAGEMENT**

(10/96)

FROM: ___________________ DATE: __12/6/96__ SUSPENSE DATE __________________

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*Which - documents per your comments - O.K. now? Yes?*

Just missing AS-BUILT - WELLS ARE SMALL & SHALLOW. I don't think it's THAT IMPORTANT. Although it's caster as condition,

I agree.
DATE: December 3, 1996

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

ATTENTION: Roy Hardy

SUBJECT: Kaupulehu Salt Water Wells - Well Completion Reports

We herewith transmit the following:

1 copy each Well Construction Reports for Kaupulehu Salt Water Wells for Beach Pool, Main Pool, and Palm Grove, State Well Nos. 4558-05 to 07. Includes Well Survey Certification.

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

WELL COMPLETION REPORT

State Well No.: 4959-05
Well Name: Beach Pool Well
Island: Hawaii
Location/Address: Kaupulehu, Hawaii
Tax Map Key: 7-2-03-5

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
6. Date(s) Well Construction and pump tests (if any) completed: Pump (9-13, 14, 1996), September 20, 1996
7. GROUND ELEVATION (referred to mean sea level, msl): 3.33 (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)

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(If more space is needed, continue on back)

9. Total depth of well below ground: 8 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: 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 ______ 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: Top Flange, which elevation is 4.06 ft.
    (1) Step-Drawdown Test Date N/A
    (2) Long-term Aquifer Test Date See Attached Graph

(1) Start water level ______ ft. below R.P.
   End water level ______ ft. below R.P.

(2) 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 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 [Signature] Date 9/20/96

Surveyor (print) See Attached Certification Lic. No. ____________
Signature [Signature] Date ____________

Applicant (print) John Mansour
Signature [Signature] Date 9/25/96
BEACH POOL WELL, STATE NO. 4959-05
BP91896.PRN

PUMP TEST AT 174 GPM

time (days)

elevation (feet)

256 256.5 257 257.5 258 258.5 259 259.5 260

SEPT 12  SEPT 13  SEPT 14  SEPT 15
### 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 (µmhos)</th>
<th>Salinity (PPT)</th>
<th>Flowrate (Meter Ave. GPM)</th>
<th>Chlorides (MG/L)</th>
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<tbody>
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<td>77</td>
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### Pump Test of the Beach Pool Well, State No. 4959-05, September 13 to 14, 1996

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<th>Time</th>
<th>Temperature (°F)</th>
<th>Conductivity (µmhos)</th>
<th>Salinity (PPT)</th>
<th>Flowrate (Meter Ave. GPM)</th>
<th>Chlorides (MG/L)</th>
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### Pump Test of the Palm Grove Well, State No. 4959-07, September 16 to 17, 1996

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<th>Time</th>
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<th>Conductivity (µmhos)</th>
<th>Salinity (PPT)</th>
<th>Flowrate (Meter Ave. GPM)</th>
<th>Chlorides (MG/L)</th>
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<tbody>
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<td>5761</td>
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<td>5730</td>
<td>24.43</td>
<td>3.137</td>
<td>89,400</td>
</tr>
</tbody>
</table>
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, Well Completed September 20, 1996
7. GROUND ELEVATION (referenced to mean sea level, msl): 4.00 (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)
   Depths (ft.) Rock Description, Water Level, Dates, etc.
   0 to 10.5 Vesicular Basalt-Dense
   (If more space is needed, continue on back)
   10.5 to ______________________
9. Total depth of well below ground: 10.5 ft.
10. Hole size: ______ inch dia. from 0 ft. to 10.5 ft. below ground
    ________________________________________________________________
    6 in. I.D. x 0.28 in. wall solid section to 3 ft. below ground
    Casing Material/Slot Size: PVC, 0.02" Slot
11. Casing installed: 6 in. I.D. x 0.28 in. wall perforated section to 10.5 ft. below ground
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: __________ 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? ______ No
18. As-built drawings attached attached? ______ 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 Lic. No. ____________________________
Signature ____________________________ Date ____________________________

Applicant (print) ____________________________
Signature ____________________________ Date 9/25/96
MAIN POOL WELL, STATE NO. 4959-06
MP91696.PRN

Pump Test at 93 GPM

Aug. 28  Aug. 29  Aug. 30  Aug. 31
### Pump Test of the Main Pool Well, State No. 4959-06, August 29 to 30, 1996

<table>
<thead>
<tr>
<th>Sample Date</th>
<th>Temperature (°F)</th>
<th>Conductivity (µhos)</th>
<th>Salinity (PPT)</th>
<th>Flowrate (Meter Ave. GPM)</th>
<th>Chlorides (MG/L)</th>
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<tbody>
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<td>24.64</td>
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### Pump Test of the Beach Pool Well, State No. 4959-05, September 13 to 14, 1996

<table>
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<th>Flowrate (Meter Ave. GPM)</th>
<th>Chlorides (MG/L)</th>
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### Pump Test of the Palm Grove Well, State No. 4959-07, September 16 to 17, 1996

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<th>Salinity (PPT)</th>
<th>Flowrate (Meter Ave. GPM)</th>
<th>Chlorides (MG/L)</th>
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<td>9/16</td>
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<td>1630</td>
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<tr>
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<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

Well Name: Palm Grove, Well
Island: Hawaii

PART I. WELL CONSTRUCTION REPORT

Drilling Company: Roscoe Moss Hawaii, Inc.
Name of driller who performed work:
Type of rig/construction: 235 CAT Excavator w/ Hammer
Date(s) Well Construction and pump tests (if any) completed: Pump (9-16, 17, 1996), September 20, 1996

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

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 8.67</td>
<td>Vesicular Basalt-Dense</td>
</tr>
</tbody>
</table>

Total depth of well below ground: 8.67 ft.

Hole size: 12 inch dia. from 0 ft. to 8.67 ft. below ground

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

Casing Material/Slot Size: PVC, 0.02" Slot

Annulus: Grouted from 0 ft. below ground to 2 ft. below ground

Initial water level: 2 ft. below ground

Initial chloride: ppm

Initial temperature: °F

PUMPING TESTS: Reference Point (R.P.) used:
(1) Step-Drawdown Test Date N/A
Start water level ______ ft. below R.P.
End water level ______ ft. below R.P.

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

Aquifer Pump Test Procedures data & graphs (1/9/96 LTAT Form) attached? Yes X No
As-built drawings attached attached? Yes X No
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
Lic. No.
Signature

Applicant (print) John Mansour
Signature

Date 9/20/96

Date 9/25/96
### 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 (µmhos)</th>
<th>Salinity (PPT)</th>
<th>Flowrate (GPM)</th>
<th>Chlorides (MG/L)</th>
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### Pump Test of the Beach Pool Well, State No. 4959-05, September 13 to 14, 1996

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<th>Salinity (PPT)</th>
<th>Flowrate (GPM)</th>
<th>Chlorides (MG/L)</th>
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<tbody>
<tr>
<td>9/13</td>
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### Pump Test of the Palm Grove Well, State No. 4959-07, September 16 to 17, 1996

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<td>5730</td>
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<td>89,400</td>
<td>1630</td>
</tr>
</tbody>
</table>
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
ROUTE SLIP

✓ Well Construction ✓ Pump Installation ___ WUP Req’d

Well Name Hualalai Resort Wells No. 9959-05 Island Hawai'i
Applicant Hualalai Development Co Landowner KSBK
Consultant Tom Name TMK 3-7-2-03.5.4

Ch 343 pau N/A Tent CWRM Action 5/3/96
Fee Depos ________

Sent
Acknowledgment 4/18/96
DoH/Drink Water 4/18/96 4/23/96
Wastewater 4/18/96 4/25/96

Comments Recd

Submittal mailed ____________
CWRM __Appr ___Deny ____________
Permit/Notice to Appl ____________ 3rdP: ____________
Cond.s routed to Survey ____________

Faxed..Appl: ____________
Consult: ____________
CONMISSION ON WATER RESOURCE MANAGEMENT

FROM: __________ DATE: __________ SUSPENSE DATE __________

TO: __________ INIT. __________ TO: __________ INIT. __________ FOR: __________ PLEASE: __________

____ BAUER, G. __________ LOUI, R. __________ Approval __________ See Me
____ CHING, F. __________ NAKAMA, L. __________ Signature __________ Review & Comment
____ FUJII, N. __________ NAKANO, D. __________ Information __________ Take Action
____ HARDY, R. __________ OHYE, M. __________ Type Draft __________ Type Final
____ HIGA, D. __________ SAKODA, E. __________ Type Draft __________ File
____ HIRANO, E. __________ SUBIA, S. __________ __________ Xerox _______ copies
____ ICE, C. __________ SWANSON, S. __________
____ JINNAI, R. __________ UWAIJNE, J. __________
____ KUNIMURA, I. __________ YODA, K. __________

pump test wasn't required for this Part II - so no need for blow-in to see.

will 4991-09
106
206
- 07
- 26
12/3 asked Greg Fukumitsu to resubmit (they filed before - that's why 2 sets of PIP.)
DATE: November 7, 1996

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

ATTENTION: Lenore Nakama

SUBJECT: Hualalai Resort - Beach & Main Pool, Fitness Center, and Palm Grove wells

We herewith transmit the following:

4 Originals Hualalai Resort - Beach Pool, Main Pool, Palm Grove and Fitness Center Wells
(State Well No. 4959-05, 06, 07 & 08) Pump Installation Completion Reports

Remarks:

We herewith transmit the above 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

cc: John Mansour - Hualalai Development Company (Trans Only)
PART II.  
(Permanent) Pump Installation Report

20. Pump Installation Company: Roscoe Moss Hawaii, Inc.

21. Name of person performing work: 

22. Date Pump Installation Completed: November 2, 1996

23. PUMP INSTALLATION:
   - Pump Type, Make, Serial No.: Submersible, Crown, Model 5MC-110
   - Capacity: 100 gpm
   - Motor type, H.P., Voltage, rpm: Submersible, 5 HP, 460V, 3500 RPM
   - Depth of Pump Intake Setting: 18.84 ft. below Top Flange, which elevation is 13.84 ft.
   - Depth to bottom of airlines: N/A ft. below ____________, which elevation is ______ ft.
   - Pumping Head is 100 ft. Type of flow meter: Turbine which measures in Gallons

24. As-built drawings attached: Yes

25. Other remarks/comments: (See below)

<table>
<thead>
<tr>
<th>Pump Installation Contractor (print)</th>
<th>Roscoe Moss Hawaii, Inc-57 Lic. No.</th>
<th>C-16437</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>William C. Moore</td>
<td>11/4/96</td>
</tr>
<tr>
<td>Applicant (print)</td>
<td>John Mansour</td>
<td></td>
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<tr>
<td>Signature</td>
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<td>11/7/96</td>
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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>
<th>Water Level Dates (ft.)</th>
<th>Depth (ft.)</th>
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19. & 25. Remarks: WEW No 4999-06 Fitness Center
**WELL COMPLETION REPORT**

1. State Well No.: 4959-08  
   Well Name: Fitness Center Well  
   Island: Hawaii

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

### 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: __________ ft.
   Well Bench Mark (description/location): ____________________________
   Elevation (msl): __________ ft.

7. GROUND ELEVATION (referred to mean sea level, 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>
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<tbody>
<tr>
<td>__________</td>
<td>____________________________________________</td>
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</table>

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: ____________________________________________

---

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

Signature ___________________________________________________________________

Surveyor (print) ____________________________  Lic. No. __________

Signature ___________________________________________________________________

Applicant (print) ____________________________

Signature ___________________________________________________________________

---
PART II. (PERMANENT) PUMP INSTALLATION REPORT

20. Pump Installation Company: Roscoe Moss Hawaii, Inc.

21. Name of person performing work: ________________________________

22. Date Pump Installation Completed: November 2, 1996

23. PUMP INSTALLATION:
   - Pump Type, Make, Serial No.: End Suction, Jacuzzi Model IMT-2
   - Motor type, H.P., Voltage, rpm: TEFC, 1 HP, 460V, 3450 RPM
   - Capacity: 60 gpm
   - Depth of Pump Intake Setting: 6.13 ft. below Fin.Fl., which elevation is 3.13 ft.
   - Depth to bottom of airline: N/A ft. below _____________ ft., which elevation is _____________ ft.
   - Pumping Head is _____________ ft. Type of flow meter: Disc which measures in Gallons

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

25. Other remarks/comments: (See below)

Pump Installation Contractor (print) Roscoe Moss Hawaii, Inc. C-57 Lic. No. C-16437
Signature ___________________________ Date __11/4/96__________

Applicant (print) ___________________________ Date __11/7/96__________
Signature ___________________________ Date ________________

--- (conf'd) ---

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

<table>
<thead>
<tr>
<th>Water Level Dates</th>
<th>Water Level Dates</th>
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<tr>
<td>Rock Description, Remarks,</td>
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State of Hawaii  
COMMISSION ON WATER RESOURCE MANAGEMENT  
Department of Land and Natural Resources

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

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- Extension 70225.

1. State Well No.: 4959-07  
2. Location/Address: Kaupulehu, Hawaii  
3. Island: Hawaii  
4. Tax Map Key: 7-2-03:4

### PART I. WELL CONSTRUCTION REPORT

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

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.  
   (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: 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.  
   End water level ft. below R.P.  
   Start water level ft. below R.P.  
   End water level ft. below R.P.  
17. Aquifer Pump Test Procedures data & graphs (1/5/96 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)  
License 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: ________________________________

22. Date Pump Installation Completed: November 2, 1996

23. **PUMP INSTALLATION:**
   - Pump Type, Make, Serial No.: End Suction, Jacuzzi, Model 2MT-T
   - Capacity: 90 gpm
   - Motor type, H.P., Voltage, rpm: TEFC, 2 HP, 460V, 3450 RPM
   - Depth of Pump Intake Setting: 7.0 ft. below Fin.Fl r., which elevation is 4.00 ft.
   - Depth to bottom of airline: N/A ft. below ____________ ft., which elevation is ________ ft.
   - Pumping Head is ________ ft.
   - Type of flow meter: Turbine which measures in Gallons

24. As-built drawings attached? Yes ☑ No ☐

25. Other remarks/comments: (See below)

<table>
<thead>
<tr>
<th>Pump Installation Contractor (print)</th>
<th>Roscoe Moss Hawaii, Inc.</th>
<th>C-16437</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>William A. Motte</td>
<td>Date</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11/4/96</td>
</tr>
<tr>
<td>Applicant (print)</td>
<td>John M. Anderson</td>
<td>Date</td>
</tr>
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<td>11/5/96</td>
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</tbody>
</table>

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

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

19. & 25. Remarks: **Well No. 4999-06 MAIN POOL**
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

WELL COMPLETION REPORT

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

10-25-96
3/20/96 WCR Form 95-10

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 521, 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 _______ or Extension 70225.

1. State Well No.: 4959-06    Well Name: Main Pool Well     Island: Hawaii
2. Location/Address: ____________ Kaupulehu, Hawaii ____________ Tax Map Key: 7-2-03:5

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:_______________________
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>
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(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: ____________________________

22. Date Pump Installation Completed: November 2, 1996

23. PUMP INSTALLATION:
   - Pump Type, Make, Serial No.: End Suction, Peerless, Model #8796-3x3x10
   - Motor type, H.P., Voltage, rpm: TEFC, 7.5 HP, 460V, 1750 RPM
   - Capacity: 150 gpm
   - Depth of Pump Intake Setting: 6.33 ft. below Fin. Flr., which elevation is 3.33 ft.
   - Depth to bottom of airline: N/A ft. below _______________, which elevation is ______________ ft.
   - Pumping Head: 70 ft. Type of flow meter: Turbine which measures in Gallons

24. As-built drawings attached? Yes No

25. Other remarks/comments: (See below)

Pump Installation Contractor (print) Roscoe Moss Hawaii, Inc. C-57 Lic. No. C-16437
Signature ________________ Date 11/4/96
Applicant (print) ________________ Date 11/7/96
Signature ________________ Date 11/7/96

8.(cont'd) DRILLER’S LOG (cont'd):

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### PART I. WELL CONSTRUCTION REPORT

3. Drilling Company: [Insert Name]

4. Name of driller who performed work: [Insert Name]

5. Type of rig/construction: [Insert Type]

6. Date(s) Well Construction and pump tests (if any) completed: [Insert Dates]

7. GROUND ELEVATION (referenced to mean sea level, msl): [Insert Elevation]

   Well Bench Mark (description/location): Elevation (msl): [Insert Elevation]

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

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

9. Total depth of well below ground: [Insert Depth]

10. Hole size: 
    - [Insert Diameter] in. dia. from [Insert Depth] ft. to [Insert Depth] ft. below ground
    - [Insert Diameter] in. dia. from [Insert Depth] ft. to [Insert Depth] ft. below ground
    - [Insert Diameter] in. dia. from [Insert Depth] ft. to [Insert Depth] ft. below ground

11. Casing installed: [Insert Diameter] in. I.D. x [Insert Diameter] in. wall solid section to [Insert Depth] ft. below ground
    - [Insert Diameter] in. I.D. x [Insert Diameter] in. wall perforated section to [Insert Depth] ft. below ground

   Casing Material/Slot Size: [Insert Information]

12. Annulus: 
    - Grouted from [Insert Depth] ft. below ground to [Insert Depth] ft. below ground
    - Gravel packed from [Insert Depth] ft. below ground to [Insert Depth] ft. below ground

13. Initial water level: [Insert Depth] ft. below ground. Date and time of measurement: [Insert Date and Time]

14. Initial chloride: [Insert Chloride] ppm Date and time of sampling: [Insert Date and Time]

15. Initial temperature: [Insert Temperature] °F Date and time of measurement: [Insert Date and Time]

16. PUMPING TESTS: Reference Point (R.P.) used: [Insert Information], which elevation is [Insert Elevation] ft.
    - (1) Step-Drawdown Test Date [Insert Date]
    - Start water level [Insert Depth] ft. below R.P.
    - End water level [Insert Depth] ft. below R.P.
    - (2) Long-term Aquifer Test Date [Insert Date]
    - Start water level [Insert Depth] ft. below R.P.
    - End water level [Insert Depth] 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) [Insert Remarks]
HUALALAI DEVELOPMENT COMPANY

TRANSMITTAL

To: Rae Loui
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

Date: 10/18/96

Re: Pump Installation Permits

We are Sending: Attached

Description:
1 - Pump Installation Permit for Fitness Center Well (No: 4959-08)
1 - Pump Installation Permits for Beach Pool, Main Pool & Palm Grove Pool Wells
   (No: 4959-05 to 07)
1 - Well Construction Permits for Beach Pool, Main Pool, Palm Grove & Fitness Center Wells
   (No: 4959-05 to 08)

These are Transmitted as Checked Below:

For Approval
× For Your Use
    Approved as Submitted
    Approved as Noted
    Returned for Corrections
    Other

As Requested

For Review & Comment

Remarks:

Copy to: John Stubbart
Greg Fukumitsu

Signed: John Mansour
Mr. Kim Richards  
Hualalai Development Company  
P.O. Box 1119  
Kailua-Kona, Hawaii 96745

Dear Mr. Kim:

Well Construction Permit  
Hualalai Resort - Beach Pool, Main Pool, Palm Grove, & Fitness Center Wells  
(Well Nos. 4959-05 to 08, respectively)

Enclosed are two (2) copies of your approved Well Construction Permit for the captioned well(s). As part of the Commission's approval, the following special conditions were added and are part of your permit under Standard Permit Condition 11:

Special Conditions

1. That the Commission authorize the Chairperson to approve and issue the pump installation permits upon acceptance of aquifer pumping test results (under standard conditions 2 and 6.e.).

Please sign the permit copies and return one for our files. Also, copies of the aquifer pump test procedure and the well completion report form are enclosed for your use.

If you have any questions, please call Rae M. Loui, Deputy Director, at [Redacted] or extension 70214.

Aloha,

MICHAEL D. WILSON  
Chairperson

Enclosures
WELL CONSTRUCTION PERMIT

Hualalai Resort - Beach Pool, Main Pool, Palm Grove, and Fitness Center Wells, Well Nos. 4959-05 to 08

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 Resort - Beach Pool, Main Pool, Palm Grove, and Fitness Center Wells (Well Nos. 4959-05 to 08) at Hualalai Resort, Hawaii, TMK 7-2-3:5, subject to the following conditions:

STANDARD PERMIT CONDITIONS

1. 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 by this permit commences.

2. The well construction permit shall be for construction and testing of the well only. A minimum one-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Commission, to accurately record water levels. The permittee shall coordinate with the Commission and conduct a pumping test in accordance with the attached Aquifer Pump Testing Procedure (attached). The permittee shall submit to the Commission the test results as a basis for supporting an application to install a permanent pump and withdraw water for use. No permanent pump may be installed until a pump installation permit is approved and issued by the Commission.

3. 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.

4. In the event that subsurface cultural remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and contact the Department's Historic Preservation Division (587-0045) immediately.

5. 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.

6. The following shall be submitted to the Commission within thirty (30) days after completion of work:
   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.
   e. Complete pumping test records, including time, pumping rate, drawdown, chloride content, and other water quality data.

7. The permittee shall comply with all applicable laws, rules, and ordinances.

8. The well construction permit application and staff submittal approved by the Commission at its June 5, 1996 meeting are incorporated into the permit by reference.

9. 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.

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

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

Date of Approval: June 5, 1996
Expiration Date: June 5, 1998

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: 10/17/96
Printed Name: Laurie A. Treweek
Firm or Title: Director of Finance & Resort Administration

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

Attachment
c: USGS
Department of Health/ Safe Drinking Water & Wastewater Branches
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.
AQUIFER (PUMP) TEST PROCEDURES

3. Each pumping rate should be continued for one hour, after which the new rate should be instituted as rapidly as possible.

4. Pumping should begin at the lowest rate and conclude with the highest rate.

5. Pumping should be continuous through the entire step-drawdown test.

6. Measurement of chloride concentration and temperature of the discharge water shall be measured at least five times:
   a. at the end of each pumping rate during the step-drawdown test, and
   b. at the very beginning of the test.

7. A sufficient number of water level measurements shall be made in the pumped well following termination of the step-drawdown test to establish that the water level fully recovers from each test to pretest levels.

Long-Term Continuous Test

The purpose of the long-term continuous test is to determine the hydraulic properties of the aquifer to explore for and identify nearby aquifer boundaries such as streams or dikes, and to observe the trend in chloride concentration of the discharge water.

1. The long-term test should not commence until the water level in the pumped well has fully recovered from the step-drawdown test. Generally, the time required for this recovery will be slightly greater than four hours. The water level in the pumped well should be measured immediately before initiation of the long-term test.

2. The pump rate for the long-term test should be sufficient to create an observable drawdown.

3. The test should be run 24 hours per day for at least seven days. If during the test, the water level remains the same for a period of 24 hours, the test can be terminated.

4. Measurement of chloride concentration and temperature of the discharge water during the long-term test shall be made at the beginning of the test and every six hours thereafter.

5. Depth to water in all wells shall be measured with sufficient frequency that each logarithmic cycle in time on the data plots (Graph 1) contains at least 10 data points spread through the cycle. Thus, depth to water should be made at t=0 (immediately prior to start of the test), and as close as possible at t=1, 1.5, 2, 2.5, 3, 4, 5, 6, 7, and 8 minutes for the first ten minutes and at all succeeding decimal multiples of these numbers to the end of the test (t=10, 15, 20, 25, 30, 40, 50, 60, 70, and 80 minutes for the log cycle 10 to 100 minutes, etc.)

6. A sufficient number of water level measurements shall be made in the pumped well following termination of the long-term continuous test to establish that the water level fully recovers from each test to pretest levels.
## Table 1

**LONG-TERM AQUIFER TEST DATA**

- **Pumped Well No.**
- **Observation well no.**
- **Pumped Well Name**
- **Distance between Obs. & Pumped Well**
- **Target Q**
- **Reference pt. for depth to water**
- **Distance between Obs. & Pumped Well**
- **Static Water Level @ start of test**

**Water level measurements by:**
- ☐ steel tape
- ☐ pressure transducer
- ☐ airline

**START TEST**
- **Date:**
- **Hour of day:**

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<td>80% recovery achieved</td>
</tr>
</tbody>
</table>

END TEST  Date: ___________  Hour of day: ___________

ADDITIONAL REMARKS:

Person in charge of pump test (print): __________________________________________

Signature: ____________________________

The signature above indicates that the data reported on this form is accurate and true to the best of the person's knowledge who operated this aquifer test.

CWRM LTAT Form 1/9/96
**WELL COMPLETION REPORT**

3/20/96 WCR Form

(Choose 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 808-586-0951 or 1-800-488-4644 Extension 70225.

1. State Well No.:  
   Well Name:  
   Island:  

2. Location/Address:  
   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):  
   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.  
   Depths (ft.) Rock Description, Water Level, Dates, etc.  
   (if more space is needed, continue on back)  
   to  to  to  to  
9. Total depth of well below ground:  
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 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: ________________________________

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 intake ________ 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)

<table>
<thead>
<tr>
<th>Pump Installation Contractor (print)</th>
<th>C-57 Lic. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td></td>
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</tbody>
</table>

| Applicant (print)                   |               |
| Signature                           | Date          |

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>
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<td>__ to __</td>
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<td>__________________________</td>
</tr>
</tbody>
</table>

19. & 25. Remarks:

__________________________________________________________________________
Mr. John Mansour  
Hualalai Development Company  
P.O. Box 1119  
Kailua-Kona, Hawaii 96740

Dear Mansour:

Pump Installation Permit  
Beach Pool, Main Pool, and Palm Grove Pool Wells (Well No. 4959-05 to 07)

Enclosed are two (2) copies of your approved Pump Installation Permit for the captioned well(s). As part of the Commission's approval, the following special conditions were added and are part of your permit under Standard Permit Condition 10:

**Special Conditions**

1. None

As part of the standard conditions of your well construction permit, Part 1 of the Well Completion report was required. For clarification, the Commission waived the need for a long-term pump test since this was a salt water well and a pump test had already been performed previously. Additionally, we understand that there is a 1/4" access hole to measure water levels. Given these facts, the requirement of a one-inch monitor tube is waived. Therefore, please let this letter serve as notice of our acceptance of your Part 1 of your Well Completion Reports for the above wells as complete.

Please sign the permit copies and return one for our files. Also, copies of the well completion report and your water use report forms are enclosed for your use.

If you have any questions, please call Rae M. Loui, Deputy Director, at [redacted] or toll-free at [redacted] extension 70214.

Aloha,

MICHAEL D. WILSON  
Chairperson

Enclosures
Beach Pool, Main Pool, and Palm Grove Pool Wells, Well No. 4959-05 to 07

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 pump installation for Beach Pool, Main Pool, and Palm Grove Pool Wells (Well No. 4959-05 to 07) at Hualalai Resort, Hawaii, TMK 7-2-3:5, subject to the following conditions:

STANDARD PERMIT CONDITIONS

1. 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 covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. The pump installation permit shall be for installation of a 92 gpm capacity, or less, pump in the wells.

3. The permittee shall provide and maintain an approved meter or other appropriate means for measuring and reporting withdrawals and water levels, and appropriate devices or means for measuring chlorides and temperature. These data shall be measured monthly and reported to the Commission on an annual basis, on forms provided by the Commission (attached).

4. The proposed use 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 pump water from a well shall not constitute a determination of correlative water rights. The permittee is notified and by this provision understands that the quantity of water taken from the well could be reduced by the Commission in the future. This permit is not a commitment that the pump capacity permitted here or even some lesser amount is guaranteed in the future.

5. The applicant shall complete and submit as-built drawings and Part II - (Permanent) Pump Installation Report of the Well Completion Report (attached) to the Commission within thirty (30) days after completion of work.

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

7. The pump installation permit application and staff submittal approved by the Commission at its June 5, 1996 meeting are incorporated into the permit by reference.

8. 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 pump installation 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 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.

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

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

Date of Approval: October 11, 1996
Expiration Date: October 11, 1998

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: Laurie A. Treweek
Printed Name: Laurie A. Treweek
Firm or Title: Director of Finance and Resort Administration
Date: 10/17/96

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

Attachment c: USGS
Department of Health/ Safe Drinking Water & Wastewater Branches
Hawaii Department of Water Supply
### Monthly Ground Water Use Report

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

Month of __________, 19__

**Instructions:** Please type or print clearly. Complete this form to report total monthly ground water use, and, if required, other information from each of your well sources. Mail to: Commission on Water Resource Management, P.O. Box 521, Honolulu HI 96809. For assistance, please call (808) 587-0264.

<table>
<thead>
<tr>
<th>State Well No.</th>
<th>Well Name</th>
<th>Period Begin Date (mm/dd/yy)</th>
<th>Period End Date (mm/dd/yy)</th>
<th>Quantity Pumped (gallons)</th>
<th>Method of Measurement</th>
<th>Chloride (mg/l)</th>
<th>Temp. (°F)</th>
<th>Non-Pumping Water Level (ft. above msl)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>4658-01</td>
<td>Kaupulehu Potable</td>
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<td></td>
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<td></td>
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<tr>
<td>4959-01</td>
<td>Hualalai Salt 1</td>
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<tr>
<td>4959-04</td>
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<tr>
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<td>4959-08</td>
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</table>

- Flow meter, electrical consumption, weir of flume, not metered (estimated).

- Measurement should be taken while pump is NOT running just prior to a pumping cycle; if measurement is taken while pump is running, please indicate so.

Other comments or additional information (e.g. - date and method of chloride measurement; how pumpage amounts are estimated; etc...):

Submitted by (print) ___________________________  
Title ___________________________  
Signature ___________________________  
Date ___________________________
Mr. John Mansour
Hualalai Development Company
P.O. Box 1119
Kailua-Kona, Hawaii 96740

Dear Mr. Mansour:

Pump Installation Permit
Fitness Center Well (Well No. 4959-08)

Enclosed are two (2) copies of your approved Pump Installation Permit for the captioned well(s). As part of the Commission's approval, the following special conditions were added and are part of your permit under Standard Permit Condition 10:

Special Conditions

1. None

As part of the standard conditions of your well construction permit, Part 1 of the Well Completion report was required. For clarification, the Commission waived the need for a long-term pump test since this was a salt water well and a pump test had already been performed previously. Additionally, we understand that there is a 1/4" access hole to measure water levels. Given these facts, the requirement of a one-inch monitor tube is waived. Therefore, please let this letter serve as notice of our acceptance of your Part 1 of your Well Completion Report as complete.

Please sign the permit copies and return one for our files. Also, copies of the well completion report and your water use report forms are enclosed for your use.

If you have any questions, please call Rae M. Loui, Deputy Director, at or toll-free at extension 70214.

Aloha,

MICHAEL D. WILSON
Chairperson

Enclosures
PUMP INSTALLATION PERMIT

Fitness Center Well, Well No. 4959-08

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 pump installation for Fitness Center Well (Well No. 4959-08) at Hualalai Resort, Hawaii, TMK 7-2-3-5, subject to the following conditions:

STANDARD PERMIT CONDITIONS

1. 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 covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. The pump installation permit shall be for installation of a 92 gpm capacity, or less, pump in the well.

3. The permittee shall provide and maintain an approved meter or other appropriate means for measuring and reporting withdrawals and water levels, and appropriate devices or means for measuring chlorides and temperature. These data shall be measured monthly and reported to the Commission on an annual basis, on forms provided by the Commission (attached).

4. The proposed use 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 pump water from a well shall not constitute a determination of correlative water rights. The permittee is notified and by this provision understands that the quantity of water taken from the well could be reduced by the Commission in the future. This permit is not a commitment that the pump capacity permitted here or even some lesser amount is guaranteed in the future.

5. The applicant shall complete and submit as-built drawings and Part II - (Permanent) Pump Installation Report of the Well Completion Report (attached) to the Commission within thirty (30) days after completion of work.

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

7. The pump installation permit application and staff submittal approved by the Commission at its June 5, 1996 meeting are incorporated into the permit by reference.

8. 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 pump installation 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.

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

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

Date of Approval: October 11, 1996
Expiration Date: October 11, 1998

Michael D. Wilson, 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.

Applicant's Signature: [Signature]
Date: 10/17/96
Printed Name: Laurie A. Treweek
Firm or Title: Director of Finance & Resort Administration

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

Attachment
USGS
Department of Health/ Safe Drinking Water & Wastewater Branches
Hawaii Department of Water Supply
**STATE OF HAWAII**  
**COMMISSION ON WATER RESOURCE MANAGEMENT**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**

**MONTHLY GROUND WATER USE REPORT**

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

Month of ________, 19__

**INSTRUCTIONS:** Please TYPE OR PRINT CLEARLY. Complete this form to report total monthly ground water use, and, if required, other information from each of your well sources. Mail to: Commission on Water Resource Management, P.O. Box 821, Honolulu HI 96809. For assistance, please call (808) 587-0264.

<table>
<thead>
<tr>
<th>State Well No.</th>
<th>Well Name</th>
<th>Period Begin Date (mm/dd/yy)</th>
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* - Flow meter, electrical consumption, weir of flume, not metered (estimated).  
** - Measurement should be taken while pump is NOT running just prior to a pumping cycle; if measurement is taken while pump is running, please indicate so.

Other comments or additional information (e.g. - date and method of chloride measurement; how pumpage amounts are estimated; etc...):

Submitted by (print) ____________________________  
Title ____________________________  
Signature ____________________________  
Date ____________________________
Mr. John Mansour  
Hualalai Development Company  
P.O. Box 1119  
Kailua-Kona, Hawaii 96740  

Dear Mansour:

Pump Installation Permit  
Beach Pool, Main Pool, and Palm Grove Pool Wells (Well No. 4959-05 to 07)

Enclosed are two (2) copies of your approved Pump Installation Permit for the captioned well(s). As part of the Commission's approval, the following special conditions were added and are part of your permit under Standard Permit Condition 10:

**Special Conditions**

1. None

As part of the standard conditions of your well construction permit, Part 1 of the Well Completion report was required. For clarification, the Commission waived the need for a long-term pump test since this was a salt water well and a pump test had already been performed previously. Additionally, we understand that there is a 1/4" access hole to measure water levels. Given these facts, the requirement of a one-inch monitor tube is waived. Therefore, please let this letter serve as notice of our acceptance of your Part 1 of your Well Completion Reports for the above wells as complete.

Please sign the permit copies and return one for our files. Also, copies of the well completion report and your water use report forms are enclosed for your use.

If you have any questions, please call Rae M. Loui, Deputy Director, at [redacted] or toll-free at [redacted] extension 70214.

Aloha,

MICHAEL D. WILSON  
Chairperson

Enclosures
PUMP INSTALLATION PERMIT

Beach Pool, Main Pool, and Palm Grove Pool Wells, Well No. 4959-05 to 07

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 pump installation for Beach Pool, Main Pool, and Palm Grove Pool Wells (Well No. 4959-05 to 07) at Hualalai Resort, Hawaii, TMK 7-2-3:5, subject to the following conditions:

STANDARD PERMIT CONDITIONS

1. 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 covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. The pump installation permit shall be for installation of a 92 gpm capacity, or less, pump in the wells.

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4. The proposed use 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 pump water from a well shall not constitute a determination of correlative water rights. The permittee is notified and by this provision understands that the quantity of water taken from the well could be reduced by the Commission in the future. This permit is not a commitment that the pump capacity permitted here or even some lesser amount is guaranteed in the future.

5. The applicant shall complete and submit as-built drawings and Part II - (Permanent) Pump Installation Report of the Well Completion Report (attached) to the Commission within thirty (30) days after completion of work.

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

7. The pump installation permit application and staff submittal approved by the Commission at its June 5, 1996 meeting are incorporated into the permit by reference.

8. 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 pump installation 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.

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

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

Date of Approval: October 11, 1996
Expiration Date: October 11, 1998

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 of this permit, return one to the Commission, and retain the other for your records.

Attachment c: USGS
Department of Health/ Safe Drinking Water & Wastewater Branches
Hawaii Department of Water Supply
Mr. John Mansour  
Hualalai Development Company  
P.O. Box 1119  
Kailua-Kona, Hawaii  96740

Dear Mr. Mansour:

Pump Installation Permit  
Fitness Center Well (Well No. 4959-08)

Enclosed are two (2) copies of your approved Pump Installation Permit for the captioned well(s). As part of the Commission’s approval, the following special conditions were added and are part of your permit under Standard Permit Condition 10:

Special Conditions

1. None

As part of the standard conditions of your well construction permit, Part 1 of the Well Completion report was required. For clarification, the Commission waived the need for a long-term pump test since this was a salt water well and a pump test had already been performed previously. Additionally, we understand that there is a 1/4" access hole to measure water levels. Given these facts, the requirement of a one-inch monitor tube is waived. Therefore, please let this letter serve as notice of our acceptance of your Part 1 of your Well Completion Report as complete.

Please sign the permit copies and return one for our files. Also, copies of the well completion report and your water use report forms are enclosed for your use.

If you have any questions, please call Rae M. Loui, Deputy Director, at [redacted] or toll-free at [redacted] extension 70214.

Aloha,

MICHAEL D. WILSON  
Chairperson

Enclosures
PUMP INSTALLATION PERMIT

Fitness Center Well, Well No. 4959-08

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 pump installation for Fitness Center Well (Well No. 4959-08) at Hualalai Resort, Hawaii, TMK 7-2-3:5, subject to the following conditions:

STANDARD PERMIT CONDITIONS

1. 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 covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. The pump installation permit shall be for installation of a 92 gpm capacity, or less, pump in the well.

3. The permittee shall provide and maintain an approved meter or other appropriate means for measuring and reporting withdrawals and water levels, and appropriate devices or means for measuring chlorides and temperature. These data shall be measured monthly and reported to the Commission on an annual basis, on forms provided by the Commission (attached).

4. The proposed use 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 pump water from a well shall not constitute a determination of correlative water rights. The permittee is notified and by this provision understands that the quantity of water taken from the well could be reduced by the Commission in the future. This permit is not a commitment that the pump capacity permitted here or even some lesser amount is guaranteed in the future.

5. The applicant shall complete and submit as-built drawings and Part II - (Permanent) Pump Installation Report of the Well Completion Report (attached) to the Commission within thirty (30) days after completion of work.

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

7. The pump installation permit application and staff submittal approved by the Commission at its June 5, 1996 meeting are incorporated into the permit by reference.

8. 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 pump installation 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.

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

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

Date of Approval: October 11, 1996
Expiration Date: October 11, 1998

MICHAEL D. WILSON, 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.

Applicant's Signature: __________________________ Date: __________
Printed Name: __________________________
Firm or Title: __________________________

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

Attachment c:
USGS
Department of Health/ Safe Drinking Water & Wastewater Branches
Hawaii Department of Water Supply
TO  
DATE 10/10  TIME 2:04 P.M.
WHILE YOU WERE OUT
M. Gregg Jukumitan
of Phone 537-1141 X2

1.
TELEPHONED
2.
CALLED TO SEE YOU
3.
WANTS TO SEE YOU

PLEASE CALL
WILL CALL AGAIN
URGENT

RETURNED YOUR CALL

Message: Here is my follow-up on the phone call that was sent.

"357, no thanks! Still have not been able to get them to send it."
Also told him about urgent reports.

Operator
TO: Roy

DATE: 10/10
TIME: 9:20

WHILE YOU WERE OUT

Message:

Walahe Wells?
When can PIRs be approved?

Operator: Lena
TO:  Pump Test

INIT. TO:  

BAUER, G. 
CHING, F. 
FUJII, N. 
HARDY, R. 
HIGA, D. 
HIRANO, E. 
ICE, C. 
JINNAI, R. 
KUNIMURA, I. 

INIT. FOR:  

LOUI, R. 
NAKAMA, L. 
NAKANO, D. 
OHYE, M. 
SAKODA, E. 
SUBIA, S. 
SWANSON, S. 
UWAINE, J. 
YODA, K. 

PLEASE:  

See Me  Review & Comment  Take Action  Type Draft  Type Final  File  Xerox copies

1. 4596-01  Kurokawa 1' - This sent direct. Site on WCR.

2. 4196-01  Toner Central - will mail data later. Pump test.

3. 4991-01  - One inch dia. Mention time?  (cond. #2)
Transmittal Memorandum

To: Rae Loui  
Department of Land and Natural Resources

From: John Mansour

Date: September 12, 1996

Re: Hualalai Resort Fitness Center Well Completion Report - State Well No. 4959-08
Hualalai Resort Kaupulehu Potable Well #1 Installation Report

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

Attached please find the following for your use:

2. Fitness Center Well (State Well No. 4959-08) Well Completion Report, As-built Section, Pump Test Data and Well Elevation Certification.

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

cc: L. Treweek  
G. Fukumitsu  
J. Stubbart
**WELL COMPLETION REPORT**

3/20/96 WCR Form

(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 808-586-4644 or 1-800-468-4644 Extension 70225.

1. State Well No.: 4959-08  
2. Location/Address: Kapolei, Hawaii  
3. Island: Oahu  
4. Tax Map Key: 7-2-03-5

## PART I. WELL CONSTRUCTION REPORT

<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>Rock Description, Water Level, Dates, etc.</th>
<th>Depth (ft)</th>
<th>Rock Description, Water Level, Dates, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 7</td>
<td>Vesicular basalt - dense</td>
<td>7 to 26.5</td>
<td></td>
</tr>
</tbody>
</table>

9. Total depth of well below ground: 26 ft.

10. Hole size:  

<table>
<thead>
<tr>
<th>Dia. (in)</th>
<th>From 0 ft to 26 ft below ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

11. Casing installed:  

<table>
<thead>
<tr>
<th>Dia. (in)</th>
<th>From 0 ft to 26 ft below ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.0</td>
<td></td>
</tr>
</tbody>
</table>

12. Annulus:  

<table>
<thead>
<tr>
<th>Dia. (in)</th>
<th>From 0 ft below ground to 17 ft below ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

13. Initial water level:  

<table>
<thead>
<tr>
<th>Date and time of measurement: 8/1/96 1500</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 ft below ground</td>
</tr>
</tbody>
</table>

14. Initial chloride:  

<table>
<thead>
<tr>
<th>Date and time of sampling: N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
</tr>
</tbody>
</table>

15. Initial temperature:  

<table>
<thead>
<tr>
<th>Date and time of measurement: 8/8/96</th>
</tr>
</thead>
<tbody>
<tr>
<td>75 °F</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Step-Drawdown Test Date</th>
<th>Long-term Aquifer Test Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start water level</td>
<td>Start water level</td>
</tr>
<tr>
<td>End water level</td>
<td>End water level</td>
</tr>
</tbody>
</table>

17. Aquifer Pump Test Procedures data & graphs (1/8/96 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): Clayton S. Jimmive

Signature: See attached elevation certificate.  
Well surveyed at finish elevation of proposed pump unit.

Surveyor (print): Lia Mansour

Signature: Date 9/11/96

Applicant (print): DATE

Signature: DATE
# Fitness Well Pump Test

**Date in Gallons Pumped**

<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>Date in Decimal Format</th>
<th>Gallons Pumped</th>
<th>Meter Reading</th>
<th>Computed Flow Rate (gpm)</th>
<th>Field Computed Flow Rate (gpm)</th>
<th>Temperature during pump test (deg F)</th>
<th>Conductivity (mMhos)</th>
<th>Temp @ Reading (deg C)</th>
<th>Salinity (ppt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/08/96</td>
<td>06:05 AM</td>
<td>08/08/96 06:05 AM</td>
<td>35285.2535</td>
<td>35285.5000</td>
<td>35285.7500</td>
<td>35286.0000</td>
<td>35286.2500</td>
<td>88.40</td>
<td>87.80</td>
<td>87.50</td>
</tr>
<tr>
<td>08/08/96</td>
<td>12:00 PM</td>
<td>08/08/96 12:00 AM</td>
<td>35286.5000</td>
<td>31180</td>
<td>31490</td>
<td>31180</td>
<td>31710</td>
<td>83.72</td>
<td>87.47</td>
<td>87.50</td>
</tr>
<tr>
<td>08/08/96</td>
<td>06:00 PM</td>
<td>08/08/96 06:00 AM</td>
<td>35285.7500</td>
<td>29720</td>
<td>31490</td>
<td>31180</td>
<td>31710</td>
<td>83.72</td>
<td>87.47</td>
<td>87.50</td>
</tr>
<tr>
<td>08/09/96</td>
<td>12:00 AM</td>
<td>08/09/96 12:00 AM</td>
<td>35286.0000</td>
<td>31180</td>
<td>31490</td>
<td>31180</td>
<td>31710</td>
<td>83.72</td>
<td>87.47</td>
<td>87.50</td>
</tr>
<tr>
<td>08/09/96</td>
<td>06:00 AM</td>
<td>08/09/96 06:00 AM</td>
<td>35286.2500</td>
<td>31180</td>
<td>31490</td>
<td>31180</td>
<td>31710</td>
<td>83.72</td>
<td>87.47</td>
<td>87.50</td>
</tr>
</tbody>
</table>

**Temperature Conductivity Temp@Salinity (mMHOS) Reading (ppt) during pump test (deg F) (deg C)**

- 75°F, 21.14°C, 10.002 ppt
- 75°F, 20.91°C, 12.295 ppt
- 74°F, 20.75°C, 11.267 ppt
- 75°F, 20.55°C, 10.887 ppt
- 75°F, 20.82°C, 9.781 ppt
ATTENTION: Use of this certificate does not provide a waiver of the flood insurance purchase requirement. This form is used only to provide elevation information necessary to ensure compliance with applicable community floodplain management ordinances, to determine the proper insurance premium rate, and/or to support a request for a Letter of Map Amendment or Revision (LOMA or LOMR).

Instructions for completing this form can be found on the following pages.

<table>
<thead>
<tr>
<th>SECTION A</th>
<th>PROPERTY INFORMATION</th>
<th>FOR INSURANCE COMPANY USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUILDING OWNER'S NAME</td>
<td>HUA LALAI DEVELOPMENT CO.</td>
<td></td>
</tr>
<tr>
<td>STREET ADDRESS (Including Apt., Unit, Suite and/or Bldg. Number) OR P.O. ROUTE AND BOX NUMBER</td>
<td>P.O. BOX 1119</td>
<td></td>
</tr>
<tr>
<td>OTHER DESCRIPTION (Lot and Block Numbers, etc.)</td>
<td>Four Seasons Resort - Well Site &amp; Fitness Center</td>
<td>(4999-08)</td>
</tr>
</tbody>
</table>

| CITY | KAILUA-KONA | STATE | HAWAII | ZIP CODE | 96745 |

| SECTION B | FLOOD INSURANCE RATE MAP (FIRM) INFORMATION |

Provide the following from the proper FIRM (See Instructions):

<table>
<thead>
<tr>
<th>1. COMMUNITY NUMBER</th>
<th>2. PANEL NUMBER</th>
<th>3. SUFFIX</th>
<th>4. DATE OF FIRM INDEX</th>
<th>5. FIRM ZONE</th>
<th>6. BASE FLOOD ELEVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>155160</td>
<td>0478</td>
<td>C</td>
<td>Sept. 16, 1988</td>
<td>AE</td>
<td>9.0</td>
</tr>
</tbody>
</table>

7. Indicate the elevation datum system used on the FIRM for Base Flood Elevations (BFE): X NGVD '29 Other (describe on back) 8. For Zones A or V, where no BFE is provided on the FIRM, and the community has established a BFE for this building site, indicate:

- The community's BFE: feet NGVD (or other FIRM datum—see Section B, Item 7).

| SECTION C | BUILDING ELEVATION INFORMATION |

1. Using the Elevation Certificate Instructions, indicate the diagram number from the diagrams found on Pages 5 and 6 that best describes the subject building's reference level .

2(a). FIRM Zones A1-A30, AE, AH, and A (with BFE). The top of the reference level floor from the selected diagram is at an elevation of feet NGVD (or other FIRM datum—see Section B, Item 7).

2(b). FIRM Zones V1-V30, VE, and V (with BFE). The bottom of the lowest horizontal structural member of the reference level from the selected diagram is at an elevation of feet NGVD (or other FIRM datum—see Section B, Item 7).

2(c). FIRM Zone A (without BFE). The floor used as the reference level from the selected diagram is feet above or below (check one) the highest grade adjacent to the building.

2(d). FIRM Zone AO. The floor used as the reference level from the selected diagram is feet above or below (check one) the highest grade adjacent to the building. If no flood depth number is available, is the building's lowest floor (reference level) elevated in accordance with the community's floodplain management ordinance? Yes No Unknown

3. Indicate the elevation datum system used in determining the above reference level elevations: X NGVD '29 Other (describe under Comments on Page 2). (NOTE: If the elevation datum used in measuring the elevations is different than that used on the FIRM [see Section B, Item 7], then convert the elevations to the datum system used on the FIRM and show the conversion equation under Comments on Page 2.)

4. Elevation reference mark used appears on FIRM: X Yes No (See Instructions on Page 4)

5. The reference level elevation is based on: X actual construction construction drawings

(NOTE: Use of construction drawings is only valid if the building does not yet have the reference level floor in place, in which case this certificate will only be valid for the building during the course of construction. A post-construction Elevation Certificate will be required once construction is complete.)

6. The elevation of the lowest grade immediately adjacent to the building is feet NGVD (or other FIRM datum—see Section B, Item 7).

| SECTION D | COMMUNITY INFORMATION |

1. If the community official responsible for verifying building elevations specifies that the reference level indicated is not the "lowest floor" as defined in the community's floodplain management ordinance, the elevation of the "lowest floor" as defined by the ordinance is: feet NGVD (or other FIRM datum—see Section B, Item 7).

2. Date of the start of construction or substantial improvement:

---

FEMA Form 81-31, MAY 90

REPLACES ALL PREVIOUS EDITIONS

SEE REVISI
This certification is to be signed by a land surveyor, engineer, or architect who is authorized by state or local law to certify elevation information when the elevation information for Zones A1-A30, AE, A (with BFE), V1-V30, VE, and V (with BFE) is required. Community officials who are authorized by local law or ordinance to provide floodplain management information, may also sign the certification. In the case of Zones AO and A (without a FEMA or community issued BFE), a building official, a property owner, or an owner's representative may also sign the certification.

Reference level diagrams 6, 7 and 8 - Distinguishing Features—If the certifier is unable to certify to breakaway/non-breakaway wall, enclosure size, location of servicing equipment, area use, wall openings, or unfinished area Feature(s), then list the Feature(s) not included in the certification under Comments below. The diagram number, Section C, Item 1, must still be entered.

I certify that the information in Sections B and C on this certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

CERTIFIER'S NAME: Robert K. Y. Lee
LICENSE NUMBER (or Affix Seal): LA 5075
TITLE: Project Manager
COMPANY NAME: R. M. Towill
ADDRESS: 73-5574 Mainau St.
CITY: Kailua-Kona
STATE: HI
ZIP: 96740
SIGNATURE: Robert K. Y. Lee
DATE: 9/4/94
PHONE: (808) 329-4494

Copies should be made of this Certificate for: 1) community official, 2) insurance agent/company, and 3) building owner.

COMMENTS: Elevation to top flange = 13.84'

The diagrams above illustrate the points at which the elevations should be measured in A Zones and V Zones.

Elevations for all A Zones should be measured at the top of the reference level floor.

Elevations for all V Zones should be measured at the bottom of the lowest horizontal structural member.
Mr. Kim Richards  
Hualalai Development Company  
P.O. Box 1119  
Kailua-Kona, Hawaii 96745  

Dear Mr. Kim:

Well Construction Permit  
Hualalai Resort - Beach Pool, Main Pool, Palm Grove, & Fitness Center Wells  
(Well Nos. 4959-05 to 08, respectively)  

Enclosed are two (2) copies of your approved Well Construction Permit for the captioned well(s). As part of the Commission’s approval, the following special conditions were added and are part of your permit under Standard Permit Condition 11:

Special Conditions  

1. That the Commission authorize the Chairperson to approve and issue the pump installation permits upon acceptance of aquifer pumping test results (under standard conditions 2 and 6.e.).

Please sign the permit copies and return one for our files. Also, copies of the aquifer pump test procedure and the well completion report form are enclosed for your use.

If you have any questions, please call Rae M. Loui, Deputy Director, at [redacted] or extension 70214.

Aloha,

MICHAEL D. WILSON  
Chairperson  

Enclosures
WELL CONSTRUCTION PERMIT

Hualalai Resort - Beach Pool, Main Pool, Palm Grove, and Fitness Center Wells, Well Nos. 4959-05 to 08

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 Resort - Beach Pool, Main Pool, Palm Grove, and Fitness Center Wells (Well Nos. 4959-05 to 08) at Hualalai Resort, Hawaii, TMK 7-2-3:S, subject to the following conditions:

STANDARD PERMIT CONDITIONS

1. 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 by this permit commences.

2. The well construction permit shall be for construction and testing of the well only. A minimum one-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Commission, to accurately record water levels. The permittee shall coordinate with the Commission and conduct a pumping test in accordance with the attached Aquifer Pump Testing Procedure (attached). The permittee shall submit to the Commission the test results as a basis for supporting an application to install a permanent pump and withdraw water for use. No permanent pump may be installed until a pump installation permit is approved and issued by the Commission.

3. 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.

4. In the event that subsurface cultural remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and contact the Department's Historic Preservation Division immediately.

5. 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.

6. The following shall be submitted to the Commission within thirty (30) days after completion of work:
   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.
   e. Complete pumping test records, including time, pumping rate, drawdown, chloride content, and other water quality data.

7. The permittee shall comply with all applicable laws, rules, and ordinances.

8. The well construction permit application and staff submittal approved by the Commission at its June 5, 1996 meeting are incorporated into the permit by reference.

9. 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.

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

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

Date of Approval: June 5, 1996
Expiration Date: June 5, 1998

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: ________________

Firm or Title: ___________________________

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

Attachment c:

USGS
Department of Health/ Safe Drinking Water & Wastewater Branches
Hawaii Department of Water Supply
for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

June 5, 1996
Honolulu, Oahu

Hualalai Development Company
Hualalai Resort-Beach Pool Well (Well No. 4959-05)
Well Construction: 6-inch diameter, 16-feet deep
Pump Installation: 180 gpm
Hualalai Resort-Main Pool Well (Well No. 4959-06)
Well Construction: 6-inch diameter, 17-feet deep
Pump Installation: 90 gpm
Hualalai Resort-Palm Grove Well (Well No. 4959-07)
Well Construction: 6-inch diameter, 17-feet deep
Pump Installation: 60 gpm
Hualalai Resort-Fitness Center Well (Well No. 4959-08)
Well Construction: 6-inch diameter, 25-feet deep
Pump Installation: 92 gpm
for heat pump system circulation use

TMK 7-2-3;5. Kaupulehu, North Kona, Hawaii

APPLICANT:  Hualalai Development Company
LANDOWNER:  Kamehameha Schools/Bishop Estate

P.O. Box 1119
Kailua-Kona, Hawaii 96745

DESCRIPTION: Location: (Exhibit 1) Dimensions: (Exhibit 2)

WATER AVAILABILITY:

Kiholo Aquifer System of Hualalai Sector; Estimated Sustainable Yield: 18 mgd
Existing use: (12 MAV as of February 1996) 1.185 mgd
Proposed use: 172,800 gpd, 86,400 gpd, 57,600 gpd, and 88,320 gpd, respectively, of salt water
for heat pump system circulation use.
Pump capacity: 180 gpm, 90 gpm, 60 gpm, and 92 gpm capacities respectively.

BACKGROUND:
The application for this well was accepted as complete on March 27, 1996.
ISSUES/ANALYSIS:

Agency Review: The application was published in the Commission’s Water Resource Bulletin in May 1996. The Department of Health’s Safe Drinking Water and Wastewater Branches had no comments.

Staff review: There are four (4) other wells within one mile, Hualalai Saltwater Wells (Well Nos. 4959-01 to 04), which are also owned by the applicant. The proposed wells would tap salt water. Although all eight wells are located in close proximity to each other, the aquifer is unconfined and no adverse impacts are expected.

RECOMMENDATION:

Staff recommends:

A. That the Commission approve the issuance of well construction permits for Hualalai Resort-Beach Pool Well (Well No. 4959-05), Hualalai Resort-Main Pool Well (Well No. 4959-06), Hualalai Resort-Palm Grove Well (Well No. 4959-07), and Hualalai Resort-Fitness Center Well (Well No. 4959-08) subject to the standard permit conditions in Exhibit 3.

B. The long-term continuous test (Exhibit 4) shall be run for a minimum of 72 hours.

C. That the Commission authorize the Chairperson to approve and issue pump installation permits upon acceptance of aquifer pumping test results.

Respectfully submitted,

RAE M. LOUI
Deputy Director

Attach. Exhibit 1 - Location Map
Exhibit 2 - Well Dimensions
Exhibit 3 - Standard Permit Conditions
Exhibit 4 - Aquifer Pump Testing Procedure

APPROVED FOR SUBMITTAL:

MICHAEL D. WILSON, Chairperson
Saline groundwater will be used to heat pool water using a closed loop heat pump system at the Resort's main pool equipment vault.

**9. PROPOSED WELL SECTION**

- **Elevation at top of casing**: 12 ft, msl
- **Ground Elevation**: 11 ft, msl
- **Cement Grout**: 9 ft
- **Rock Packing**: 7 ft
- **Hole Diameter**: 12 in.
- **Total Depth**: 16 ft

**Solid Casing**:
- **Material**: PVC (Sch. 40)
- **Length**: 12 ft
- **Diameter**: 6 (nominal) in
- **Wall Thickness**: 0.28 in

**Casing**:
- **Material**: PVC (Sch. 40)
- **Length**: 5 ft
- **Diameter**: 6 (nominal) in
- **Wall Thickness**: 0.28 in
- **Opener**: 20 sq. in A.F.

**Open Hole**:
- **Length**: None
- **Diameter**: None

*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.*

**EXHIBIT 2**
Saline groundwater will be used to heat pool water using a closed loop heat pump system at the Resort's main pool equipment vault.

9. PROPOSED WELL SECTION

Elevation at top of casing: 13 ft. msl.

Ground Elevation: 12 ft. msl

Cement Grout: 10 ft.

Rock Packing: 7 ft.

Hole Diameter: 12 in.

Solid Casing: PVC (Sch. 40)

Material: 
Length: 13 ft.
Diameter: 6 in.
Wall Thickness: 0.28 in.

Casing: None

Material: PVC (Sch. 40)

Length: 5 ft.
Diameter: 6 in. (nominal)
Wall Thickness: 0.28 in.
Openings: 20 sq. in. A.F.

Open Hole:
Length: None
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 report.*
8. Remarks, Explanations (cont'd): Saline groundwater will be used to heat pool water using a closed loop heat pump system at the Resort's main pool equipment vault.

9. PROPOSED WELL SECTION

Elevation at top of casing 16 ft. msl

Cement Grout: 13 ft.

Rock Packing: 12 ft.

Hole Diameter: 12 in.

Total Depth: 25 ft.

Ground Elevation: 15 ft. msl

Sold Casing:
Material: PVC (Sch. 40)
Length: 15 ft.
Diameter: 6 (nominal) in.
Wall Thickness: 0.28 in.

Casing: [ ] Perforated [ ] Screen
Material: PVC (Sch. 40)
Length: 10 ft.
Diameter: 6 (nominal) in.
Wall Thickness: 0.28 in.
Openings: 20 sq. in. A.F.

Open Hole:
Length: None
Diameter: None

*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 report.*
8. Remarks, Explanations (cont’d): Saline groundwater will be used to heat pool water using a closed loop heat pump system at the Resort's main pool equipment vault.

9. PROPOSED WELL SECTION

- Elevation at top of casing: 13 ft, msl
- Ground Elevation: 12 ft, msl
- Cement Grout: 10 ft
- Rock Packing: 7 ft
- Hole Diameter: 12 in

**Solid Casing:**
- Material: PVC (Sch. 40)
- Length: 13 ft
- Diameter: 6 in
- Wall Thickness: 0.28 in

**Casing:**
- Perforated: Yes
- Screen: No
- Material: PVC (Sch. 40)
- Length: 5 ft
- Diameter: 6 in
- Wall Thickness: 0.28 in
- Openings: 20 sq in A.F.

Open Hole:
- Length: None
- Diameter: None

*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.*
STANDARD WELL CONSTRUCTION PERMIT CONDITIONS

1. 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 by this permit commences.

2. The well construction permit shall be for construction and testing of the well only. A minimum one-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Commission, to accurately record water levels. The permittee shall coordinate with the Commission and conduct a pumping test in accordance with the attached Aquifer Pump Testing Procedure (Exhibit 4). The permittee shall submit to the Commission the test results as a basis for supporting an application to install a permanent pump and withdraw water for use. No permanent pump may be installed until a pump installation permit is approved and issued by the Commission.

3. 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.

4. In the event that subsurface cultural remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and contact the Department's Historic Preservation Division immediately.

5. 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.

6. The following shall be submitted to the Commission within thirty (30) days after completion of work:
   a. Well completion report.
   b. Elevation (referred 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.
   e. Complete pumping test records, including time, pumping rate, drawdown, chloride content, and other water quality data.

7. The permittee shall comply with all applicable laws, rules, and ordinances.

8. The well construction permit application and staff submittal approved by the Commission at its June 5, 1996 meeting are incorporated into the permit by reference.

9. 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.

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

EXHIBIT 3
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.
3. Each pumping rate should be continued for one hour, after which the new rate should be instituted as rapidly as possible.

4. Pumping should begin at the lowest rate and conclude with the highest rate.

5. Pumping should be continuous through the entire step-drawdown test.

6. Measurement of chloride concentration and temperature of the discharge water shall be measured at least five times:
   a. at the end of each pumping rate during the step-drawdown test, and
   b. at the very beginning of the test.

7. A sufficient number of water level measurements shall be made in the pumped well following the termination of the step-drawdown test to establish that the water level fully recovers from each test to pretest levels.

**Long-Term Continuous Test**

The purpose of the long-term continuous test is to determine the hydraulic properties of the aquifer to explore for and identify nearby aquifer boundaries such as streams or dikes, and to observe the trend in chloride concentration of the discharge water.

1. The long-term test should not commence until the water level in the pumped well has fully recovered from the step-drawdown test. Generally, the time required for this recovery will be slightly greater than four hours. The water level in the pumped well should be measured immediately before initiation of the long-term test.

2. The pump rate for the long-term test should be sufficient to create an observable drawdown.

3. The test should be run 24 hours per day for at least seven days. If during the test, the water level remains the same for a period of 24 hours, the test can be terminated.

4. Measurement of chloride concentration and temperature of the discharge water during the long-term test shall be made at the beginning of the test and every six hours thereafter.

5. Depth to water in all wells shall be measured with sufficient frequency that each logarithmic cycle in time on the data plots (Graph 1) contains at least 10 data points spread through the cycle. Thus, depth to water should be made at t=0 (immediately prior to start of the test), and as close as possible at t=1, 1.5, 2, 2.5, 3, 4, 5, 6, 7, and 8 minutes for the first ten minutes and at all succeeding decimal multiples of these numbers to the end of the test (t=10, 15, 20, 25, 30, 40, 50, 60, 70, and 80 minutes for the log cycle 10 to 100 minutes, etc.)

6. A sufficient number of water level measurements shall be made in the pumped well following termination of the long-term continuous test to establish that the water level fully recovers from each test to pretest levels.
LONG-TERM AQUIFER TEST DATA

Pumped Well No. ___________________ Observation well no. ___________________
Pumped Well Name ___________________ Distance between Obs. & Pumped Well _______ ft.
Target Q ___________________ gpm Reference pt. for depth to water _____________ ft. msl

Static Water Level @ start of test _____________ ft. msl

Water level measurements by: □ steel tape □ pressure transducer □ airline

START TEST Date: ______________ Hour of day: ______________

Flow Meter Reading Start: ______________ gals

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Data in this table is for:
- □ Pumped Well
- □ Observation Well

Remarks

END TEST Date: ___________ Hour of day: ___________

ADDITIONAL REMARKS:

Person in charge of pump test (print): ____________________________

Signature: ____________________________

The signature above indicates that the data reported on this form is accurate and true to the best of the person’s knowledge who operated this aquifer test.

CWRM LTAT Form 1/9/96
TO: Honorable Lawrence Miike, Director  
Department of Health  
Attn: Mr. Dennis Tulang, Wastewater Branch  
Mr. William Wong, Safe Drinking Water Branch

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

SUBJECT: Well Construction and Pump Installation Permit Applications for Hualalai Resort Wells (Well Nos. 4959-05 to 08)

Transmitted for your review and comment are copies well construction and pump installation permit applications for Hualalai Resort Wells (Well Nos. 4959-05 to 08).

We would appreciate your comments on the captioned applications for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department.

Please respond by returning this cover memo form by April 22, 1996.

Please find a map, attached, to locate the proposed wells. If you have any questions about this permit application, request additional information, or request additional review time, please contact Lyann Mizuno of the Commission staff at...

LM:fc  
Attachment(s)

RESPONSE: (x) We have no comments  
( ) Comments attached

Contact Person: Bill Wong

Phone: 586-4258

Signed: Bill Wong  
Date: 4/19/96
Hualalai Resort:

- 4959-05 Beach Pool Well
- 4959-06 Main Pool Well
- 4959-07 Palm Grove Well
- 4959-08 Fitness Center Well

radius = 1 mile

Kukio Bay
Kukia Bay
Kukapu Bay
Papiha Pt
Kukio
Kikaua Pt
Kumukehu Pt

Kukio Bay Wells
01K to 06M

Exhibit 1
TO: Honorable Lawrence Miike, Director  
Attn: Mr. Dennis Tulang, Wastewater Branch  
Mr. William Wong, Safe Drinking Water Branch

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

SUBJECT: Well Construction and Pump Installation Permit Applications for Hualalai Resort Wells (Well Nos. 4959-05 to 08)

Transmitted for your review and comment are copies well construction and pump installation permit applications for Hualalai Resort Wells (Well Nos. 4959-05 to 08).

We would appreciate your comments on the captioned applications for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department.

Please respond by returning this cover memo form by April 22, 1996.

Please find a map, attached, to locate the proposed wells. If you have any questions about this permit application, request additional information, or request additional review time, please contact Lyann Mizuno of the Commission staff at...

RESPONSE: ☒ We have no comments
( ) Comments attached

Contact Person: Lori N. Kajiwara

Phone: 586-4294

Signed: Lori N. Kajiwara Date: 4-22-96
Ms. Kim Richards  
Hualalai Development Company  
P.O. Box 1119  
Kailua-Kona, Hawaii  96745

Dear Ms. Richards:

Well Construction and Pump Installation Permit  
Applications for  
Hualalai Resort Wells (Well Nos. 4959-05 to 08)

We accepted your well construction and pump installation permit applications on March 27, 1996, and hereby acknowledge that they are complete. You can expect your applications to be processed for action within ninety (90) days from that acceptance date.

If you have any questions about your applications, please contact Lyann Mizuno of the Commission staff at [redacted].

Sincerely,

[Signature]
RAE M. LOUI  
Deputy Director

LM:fc

c:   Tom Nance, TNWRE
TO: Honorable Lawrence Miike, Director
   Department of Health
   Attn: Mr. Dennis Tulang, Wastewater Branch
         Mr. William Wong, Safe Drinking Water Branch

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

SUBJECT: Well Construction and Pump Installation Permit Applications for Hualalai Resort Wells (Well Nos. 4959-05 to 08)

Transmitted for your review and comment are copies well construction and pump installation permit applications for Hualalai Resort Wells (Well Nos. 4959-05 to 08).

We would appreciate your comments on the captioned applications for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department.

Please respond by returning this cover memo form by April 22, 1996.

Please find a map, attached, to locate the proposed wells. If you have any questions about this permit application, request additional information, or request additional review time, please contact Lyann Mizuno of the Commission staff at

LM:fc
Attachment(s)

RESPONSE: ( ) We have no comments
           ( ) Comments attached

Contact Person:

Phone:

Signed: ________________________ Date: __________________
APPLICATION FOR PERMIT:

1. APPLICANT: (circle primary contact a, b, or c) Primary Fax: 808-325-1490
(a) WELL OWNER: Hualalai Development Company
Firm Name:
Contact Person: Kim Richards, Ph. 808-325-0808
Address: P.O. Box 1119, Kailua-Kona, Hawaii 96745
(b) LANDOWNER: Kamehameha Schools/ BP Bishop Estate
Firm Name:
Contact Person: Ph. 808-682-2000
Address: 567 South King Street, Suite 200
Honolulu, Hawaii 96813
(c) CONTRACTOR: Roscoe Moss Hawaii, Inc.
Firm Name:
Contact Person: Bill Moore, Ph. 808-488-1234, Contractor’s C-57 License No. C16437
Address: 91-259A Olai Street, Kapolei, Hawaii 96707

2. WELL LOCATION/NAME: Hualalai Resort-Beach Pool Well
Island: Hawaii
Address: No street address; makai of Queen Kaahumanu Hwy.
Tax Map Key: 7-2-03:5

3. (a) PROPOSED WORK:
   - Diff New Well
   - Modify Existing Well
   - Abandon Seal
   - Install New Pump
   - Replace Pump
   - Deepen
   - Redrill
   - Modify Pump
   - * Be sure to complete and submit well abandonment report upon completion of work.
(b) WELL TYPE:
   - Dug
   - Bored
   - Driven
   - Drilled
   - Radial

4. PROPOSED PUMP INFORMATION:
   - Rated Pump Capacity: 180 gallons per minute
   - Motor: Electric, rated horsepower: 5

5. PROPOSED USE:
   - Municipal (including hotels, stores, etc.)
   - Military
   - Domestic (individual, noncommercial water sys.)
   - Industrial
   - Irrigation (crop)
   - Other (explain): See Reverse Side

6. (a) PROPOSED AMOUNT OF WITHDRAWAL: 172,800 gallons per day
(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

I understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 30 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

Hualalai Development Company
Well Owner: William C. Moore
Date: 3/15/96

Kamehameha Schools/ BP Bishop Estate
Landowner: Roscoe Moss Hawaii, Inc.
Contractor: Bill Moore
Date: 3/15/96

For Official Use Only:
Date Received: 
Date Accepted: 
Field Checked By: 
Date: 
Longitude: 
Latitude: 
Aquifer System Name: K16437
State Well No: 769-9-05
Saline groundwater will be used to heat pool water using a closed loop heat pump system at the Resort's main pool equipment vault.

9. PROPOSED WELL SECTION

- Elevation at top of casing: ___ ft., msl.
- Cement Grout: ___ ft.
- Rock Packing: ___ ft.
- Hole Diameter: ___ in.
- Total Depth: ___ ft.
- Ground Elevation: ___ ft., msl.

Solid Casing:
- Material: PVC (Sch. 40)
- Length: 12 ft.
- Diameter: 6 in. (nominal)
- Wall thickness: 0.28 in.

Open Hole:
- None
- Length: ___ ft.
- Diameter: ___ in.

*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.
Portion of Kiholo Quad Map

1" = 2000'

Hualalai Resort
Beach Pool Well
Main Pool Well
Palm Grove Well

Kahului
Kaupulehu Salt Water Wells no. 3 & 4
Hualalai Resort Fitness Center Well

Kukio Bay

Kaupulehu Resort

Kaupulehu Makai Irrigation Well No. 1 (4859-01)
Kaupulehu Resort Observation Well (4859-01M)
APPLICATION FOR PERMIT

State of Hawai'i
Commission on Water Resource Management
Department of Land and Natural Resources

APPLICATION FOR PERMIT

1. APPLICANT: (circle primary contact a, b, or c) Primary Fax: 808-325-0808
   (a) WELL OWNER: Hualalai Development Company
      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: Ph.
      Address: 567 South King Street - Suite 200
               Honolulu, Hawaii 96813
   (c) CONTRACTOR: Roscoe Moss Hawaii, Inc.
      Firm Name: Roscoe Moss Hawaii, Inc.
      Contact Person: Bill Moore
      Address: 91-259A Olal Street
               Kapeolani, Hawaii 96707

2. WELL LOCATION/NAMES: Hualalai Resort-Main Pool Well
   Island: Hawaii
   Address: No street address; makai of Queen Kaahumanu Hwy.
   Tax Map Key: 7-2-03:5

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

4. PROPOSED PUMP INFORMATION:
   - Rated Pump Capacity: 90 gallons per minute
   - Motor:
     - Deep Well Turbine
     - Rotary
     - Propeller
     - Submersible
     - Rotary-Displacement
     - Reciprocating
     - Centrifugal
     - Centrifugal-Gear
     - Impulse
     - Electric, rated horsepower: 3

5. PROPOSED USE:
   - Municipal (including hotels, stores, etc.)
   - Industrial
   - Irrigation (crop)
   - Other (explain): See Reverse Side

6. (a) PROPOSED AMOUNT OF WITHDRAWAL: 86,400 gallons per day
(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


I understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 30 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

Hualalai Development Company
Well Owner
Signature: [Signature] Date: 3-15-96

Kamehameha Schools/BP Bishop Estate
Landowner
Signature: [Signature] Date: 3-15-96

Roscoe Moss Hawaii, Inc.
Contractor
Signature: [Signature] Date: 3/29/96

For Official Use Only:
Date Received
Date Accepted
Field Checked By
Date
Longitude
Latitude
Aquifer System Name
State Well No.

1/15/95 WCRI Form
8. Remarks, Explanations (cont'd): Saline groundwater will be used to heat pool water using a closed loop heat pump system at the Resort's main pool equipment vault.

9. PROPOSED WELL SECTION

Elevation at top of casing: 13 ft., msl.

Ground Elevation: 12 ft., msl

Cement Grout: 10 ft.

Rock Packing: 7 ft.

Hole Diameter: 12 in.

Total Depth: 17 ft.

Solid Casing: PVC (Sch. 40)

Material: PVC (Sch. 40)

Length: 13 ft.

Diameter: 6 in.

Wall thickness: 0.28 in.

Casing: • Perforated  □ Screen

Material: PVC (Sch. 40)

Length: 5 ft.

Diameter: 6 (nominal) in.

Wall thickness: 0.28 in.

Openings: 20 sq. in. A.F.

Open Hole: None

Length: None ft.

Diameter: None in.

*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.
Hualalai Resort
Main Pool Well
Hualalai Resort
Beach Pool Well
Hualalai Resort
Palm Grove Well
Kaupulehu Salt Water
Wells no. 1 & 2
Kaupulehu Salt Water
Wells no. 3 & 4
APPLICATION FOR PERMIT

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**1. APPLICANT:** (circle primary contact a, b, or c) Primary Fax: 808-225-1400

(a) WELL OWNER
Hualalai Development Company
Firm Name: Kim Richards
Contact Person: 808-325-0808
Address: P. O. Box 1119
Kailua-Kona, Hawaii 96745

(b) LANDOWNER: Kamehameha Schools/
BP Bishop Estate
Firm Name: 808-South King Street - Suite 200
Hawaii 96813

(c) CONTRACTOR
Roscoe Moss Hawaii, Inc.
Firm Name: Bill Moore
Contact Person: 808-325-0808
Address: 91-259A Olai Street
Kapolei, Hawaii 96707

**2. WELL LOCATION/NAME:** Hualalai Resort-Fitness Center Well
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
- Deepen
- Install New Pump
- Modify Existing Well
- Rebuild
- Modify Pump
- Abandon/Seal
- Replace Pump

* 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: 92 gallons per minute
- Motor: Electric, rated horsepower: 5
- If Pump Replacement, Existing Pump Capacity: __ gallons per minute
- Pump Type:
  - Deep Wet Turbine
  - Rotary
  - Submersible
  - Submersible-Displacement
  - Centrifugal
  - Reciprocating

5. PROPOSED USE:
- Irrigation (crop)
- Domestic (individual, noncommercial water sys.)
- Municipal (including hotels, stores, etc.)
- Industrial
- Other (explain): See Reverse Side

6. (a) PROPOSED AMOUNT OF WITHDRAWAL:
- 88,320 gallons per day
(b) METHOD OF FLOW MEASUREMENT:
- Flow-meter
- Open-pipe
- Orifice Plate
- Weir

7. PENDING ACTIONS:
- CDUA □ SRA □ EIS □ EA

Completion Date: __ __ __ __
- None □ Other (explain)

8. REMARKS, EXPLANATIONS:

See Reverse Side

______________________________
Signature

Date: __ __ __ __

For Official Use Only:

Date Received __________________
Date Accepted __________________
Field Checked By __________________
Longitude __________________
State Well No. __________________
Latitude __________________
Aquifer System Name __________________
____-09 __________________

(1) 15-09 WCR Form
8. Remarks, Explanations (cont'd): Saline groundwater will be used to heat pool water using a closed loop heat pump system at the Resort's main pool equipment vault.

9. PROPOSED WELL SECTION

Elevation at top of casing
16 ft., msl.

Cement Grout: 13 ft.

Rock Packing: 12 ft.

Hole Diameter: 12 in.

Total Depth: 25 ft.

Ground Elevation: 15 ft., msl.

Solid Casing:
Material: PVC (Sch. 40)
Length: 16 ft.
Diameter: 6 (nominal) in.
Wall thickness: 0.28 in.

Casing: Perforated
Material: PVC (Sch. 40)
Length: 10 ft.
Diameter: 6 (nominal) in.
Wall thickness: 0.28 in.
Openings: 20 sq. in./ft.

Open Hole:
Length: None
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

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. 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...

1. APPLICANT: (circle primary contact a, b, or c) Primary Fax: 808-586-1433
   (a) WELL OWNER
   Firm Name: Hualalai Development Company
   Contact Person: Kim Richards
   Ph.: [redacted]
   Address: P.O. Box 1119
   Kailua-Kona, Hawaii 96745
   
   (b) LANDOWNER: Kamehameha Schools/ BP Bishop Estate
   Firm Name: [redacted]
   Contact Person: [redacted]
   Address: 587 South King Street - Suite 200
   Honolulu, Hawaii 96813
   
   (c) CONTRACTOR
   Firm Name: Roscoe Moss Hawaii, Inc.
   Contact Person: Bill Moore
   Ph.: [redacted]
   Contractor's C-57 License No.: C16437
   Address: 91-259A Olai Street
   Kapolei, Hawaii 96707

2. WELL LOCATION/NAME: Hualalai Resort-Palm Grove Well
   Island: Hawaii
   Address: No street address; makai of Queen Kaahumanu Hwy
   Tax Map Key: 7-2-03:4
   (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
   • Deepen
   • Redrill
   • Abandon
   • Install New Pump
   • Modify Pump
   • Replace Pump
   • * Be sure to complete and submit well abandonment report upon completion of work.

   (b) WELL TYPE:
   • Dog
   • 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: 60 gallons per minute
   Motor: [redacted]
   Pump Type:
   • Deep Well Turbine
   • Rotary
   • Propeller
   • Rotary-Displacement
   • Reciprocating
   • Centrifugal
   • Rotary-Gear
   • Impulse
   If Pump Replacement, Existing Pump Capacity: [redacted] gallons per minute

5. PROPOSED USE:
   • Domestic (including hotels, stores, etc.)
   • Irrigation (crop)
   • Municipal (including hotels, stores, etc.)
   • Military
   • Industrial
   • Other (explain): See Reverse Side

6. (a) PROPOSED AMOUNT OF WITHDRAWAL: 57,600 gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   • Flow-meter
   • Open-pipe
   • Office Plate
   • weir
   Completion Date:

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

8. REMARKS, EXPLANATIONS:
   See Reverse Side

I understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 30 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

Hualalai Development Company
Well Owner

Kamehameha Schools/ BP Bishop Estate
Landowner

Roscoe Moss Hawaii, Inc.
Contractor

Signature __________________________ Date: 3-15-96

For Official Use Only:
Date Received __________________________
Date Accepted __________________________
Field Checked By __________________________ Date: __________________________
Longitude __________________________
Latitude __________________________
Aquifer System Name __________________________ State Well No.: [redacted]

11/12/95 WCPR Form
8. Remarks, Explanations (cont'd): Saline groundwater will be used to heat pool water using a closed loop heat pump system at the Resort's main pool equipment vault.

9. PROPOSED WELL SECTION

Elevation at top of casing: 13 ft., msl

Cement Grout: 10 ft.

Rock Packing: 7 ft.

Hole Diameter: 12 in.

Total Depth: 17 ft.

Ground Elevation: 12 ft., msl

Solid Casing:
- Material: PVC (Sch. 40)
- Length: 13 ft.
- Diameter: 6 in.
- Wall thickness: 0.28 in.

Openings: 20 sq. in./A.F.

Open Hole:
- Length: None
- Diameter: -

Casing: - Perforated  - Screen
- Material: PVC (Sch. 40)
- Length: 5 ft.
- Diameter: 6 in.
- Wall thickness: 0.28 in.

*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.
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 Construction Applications For Four Brackish to Saline Feedwater Wells at the Hualalai Resort, North Kona, Hawaii

On behalf of the Hualalai Development Company, I am pleased to submit the enclosed Well Construction and Pump Installation permit applications for four shallow, brackish to saline wells and filing fees. The wells will be designed to produce between 60 to 180 GPM. They will provide feedwater for closed loop heat pump systems which will be used to warm swimming pool water at the Hualalai Resort.

We respectfully request expedited processing of these applications so that the systems can be in place and operational for the Resort's scheduled opening this summer. Thank you for your consideration.

Sincerely,

Tom Nance

cc: Roger Harris - Hualalai Development Co.

Enclosures
March 27, 1996

** One hundred and 00/100 **

** DOLLARS $100.00 **

TO THE ORDER OF

Department of Land and Natural Resources

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<tr>
<th>DATE</th>
<th>DESCRIPTION</th>
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<td>3-27-96</td>
<td>Filing Fees: Well Construction Applications For Four Brackish to Saline Feedwater Wells at the Hualalai Resort in North Kona, Hawaii [Job No. 95-10]</td>
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