WELL CONSTRUCTION PERMIT

Kula Well, Well No. 3687-48

Note: This permit shall be prominently displayed at the construction site until the work is completed

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 Kula Well (Well No. 3687-48) at TMK 1-5-054:235, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified in writing, at least two (2) weeks before any work authorized by this permit commences and shall be allowed to inspect work in progress.
2. The well construction permit shall be for construction and testing of the well only. The permittee shall coordinate with the Chairperson and conduct a pumping test in accordance with the HWCPIS (the latest pump test worksheet can be obtained by contacting Commission staff at www.hawaii.gov/dlnr/cwrm/forms.htm). The permittee shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson. No withdrawal of water shall be made for purposes other than testing without a Certificate of Pump Installation Completion. The permitted pump capacity described on the pump installation permit may be reduced in the event that the pump test does not support the capacity.
3. The well construction permit application may not exceed one-fourth (1/4) of the theoretical thickness (60 times initial head) of the saturated ground water unless otherwise authorized by the Chairperson.
4. The permittee shall incorporate mitigation measures to prevent construction debris from entering the aquifer environment, to schedule work to avoid periods of high rainfall, and to revegetate any cleared areas as soon as possible.
5. The permittee shall incorporate mitigation measures to prevent construction debris from entering the aquatic environment, to schedule work to avoid periods of high rainfall, and to revegetate any cleared areas as soon as possible.
6. In the event that historically significant remains such as artifacts, burials, or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and immediately report to the Department of Land and Natural Resources' State Historic Preservation Division. Work may recommence only after obtaining concurrence from the State Historic Preservation Division.
7. The proposed well construction shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to construct the well shall not constitute a determination of concomitant water rights.
8. The Well Completion Report Part I shall be submitted to the Chairperson within sixty (60) days after completion of work (please contact staff or visit www.hawaii.gov/dlnr/cwrm/forms.htm for current form).
9. The permittee shall comply with all applicable laws, rules, and ordinances; non-compliance may be grounds for revocation of this permit.
10. The well construction permit application and any related staff shall be submitted to the Commission and incorporated into this permit by reference. This permit is also subject to the HWCPIS. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.
11. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than the date the permit expires.
12. If the well is not to be used it must be properly capped. If the well is to be abandoned during the course of the project then the permittee must apply for a well abandonment permit in accordance with §13-168-12(7) prior to any well sealing or plugging work. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assignee, assign, officer, employee, contractor, and agents under this permit or relating to or connected with the granting of this permit.
13. The permittee shall timely complete all work required by this permit. If the well is to be relocated, the permittee shall apply for a new well construction/pump installation permit in accordance with Hawaii Administrative Rules §13-168-12(1).
14. Special conditions in the attached cover transmittal letter are incorporated herein by reference.

W. Roy Handy
ALLAN A. SMITH, Interim Chairperson
Commission on Water Resource Management

Date of Approval: May 18, 2007
Expiration Date: May 18, 2009

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

Driller's Signature: 
Printed Name: Rod Diamond 
C-57 License #: C-23379 Firm or Title: Diamond Construction and Water Well Drilling 

Date: 8-16-07

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

Attachment
PUMP INSTALLATION PERMIT
Kula Well, Well No. 3687-48

Note: This permit shall be prominently displayed at the site until the work is completed

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 Kula Well (Well No. 3687-48) at TMK 1-5-054:235, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

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

2. No withdrawal of water shall be made other than for testing until a Certificate of Pump Installation Completion has been issued by the Commission.

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

4. The pump installation permit shall be for installation of a 12 gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.

5. A water-level measurement access shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels.

6. The permittee shall install an approved meter or other appropriate means for measuring and reporting withdrawals and appropriate devices or means for measuring chlorides and temperature at the well head.

7. Well Completion Report Part II shall be submitted to the Chairperson within 60 days after completion of work. This form can be obtained by contacting staff or on the internet at www.hawaii.gov/dlnr/crm.

8. The permittee, well operator, and/or well owner shall comply with all applicable laws, rules, and ordinances, and non-compliance may be grounds for revocation of this permit.

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

10. 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 Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than the date the permit expires.

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

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

W. Rod Diamond

Date of Approval: May 18, 2007
Expiration Date: May 18, 2009

ALLAN A. SMITH, Interim Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the pump installer 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.

Installer's Signature: Rod Diamond
Printed Name: Rod Diamond
Firm or Title: Rod Diamond Construction and Water Well Drilling

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

Attachments
MEMO and ROUTE SLIP (ver. 8/31/2007) 08/31/07

WCR 1 Check for Well No. 3687-48 (survey to regulation memo)

1. **Pump Tests Check** Diane England (initial)

   - Step-Drawdown Test: followed WCPI Stds analysis attached
   - Constant Rate Test: followed WCPI Stds analysis attached

   Drawdown at 1-mile radius is __________ ft.

   Potential Well Interference:
   Potential Stream Impacts:

   Additional Testing or Data Required:

   Pump Test Comments Attached:

   Pump Tests not req'd. Proposed capacity only 12 gpm.

   - <70 gpm no test required
   - <50 gpm no test required

2. **Well Log Check** Geology Code for Well Index: QPL Fm Name: Puna Basalt England: DZ (initial)

3. **Construction Check** Mitch Ohye (initial)

   - data complete
   - followed Special Cond & elevations
   - well database updated

   Latitude
   NAD27 11 36 38
   NAD83 11 36 11

   Longitude
   114 01 38
   114 11 41

4. Charley/Ryan (initial) take action based on above analysis

   ATTACHMENTS FOR PUMP INSTALLATION PERMIT (2x):
   1 COVER LETTER
   2 COUNTY COMMENTS (DWS/SMA)
   3 DOH COMMENTS
   4 DLNR COMMENTS (LD/OCC/OC)
   5 SWCR 1 Accept
   6 WELL CONST. COMPLETION CERTIFICATE

   not necessary – only WCP or BOTH.

   To be sent to driller/pump installer

   To Landowner

   Staff internal checks

5. Roy (initial) check (Entered WCR 1/WCCC accept date into database)

6. Susan Hoagbin (initial) finalize

7. Mitch (initial) signature (Entered PIP issue date if required)

8. Charley/Ryan file
September 26, 2007

Mr. Rod Diamond  
Diamond Construction and Water Well Drilling  
HCR #3 Box 14073  
Keeau, HI 96749

Dear Mr. Diamond:

Well Completion Report Parts I & II for Well No. 3687-48

We received your Well Completion Report Parts I & II for the Kula Well (Well No. 3687-48) on August 31, 2007 and acknowledge that they are complete.

This completes your obligation under the well construction and pump installation permits. Certificates of well construction and pump installation completion will be issued to the well operator/landowner and you will receive copies. These certificates transfer responsibility of specific aspects of well usage and maintenance from you to the well operator/landowner.

If you have any questions, please contact Ryan Imata of the Commission staff at 587-0255.

Sincerely,

KEN C. KAWAHARA, P.E.  
Deputy Director

RI:ss

c: Curt Albrecht
Mr. Curt Albrecht
16-540 Keaau-Pahoa Rd.2 PMB 34
Keaau, HI 96749

Dear Mr. Albrecht:

Certificate of Well Construction Completion for Well No. 3687-48

We are pleased to inform you that the Well Construction work permitted for the Kula Well (Well No. 3687-48) is complete and acceptable and welcome you as a new member to the community of well owners and groundwater users in Hawaii.

To protect Hawaii's natural ground water resources for the benefit of all, the following requirements apply to the use of your well:

1. Before this well can be pumped on a regular basis, a certificate of pump installation completion must be obtained.
2. If the well is not in use it must be properly capped.
3. If the well is to be abandoned then the landowner must cause a licensed contractor to apply for a well abandonment permit in accordance with §13-168-12(f) prior to any well sealing or plugging work.
4. In the event that the well operator and/or landowner changes, the Commission shall be notified of the change prior to the change, and all forms shall be transferred to the new owner.
5. In the event the benchmark in the concrete base of the well is altered in any way, an updated elevation survey (page 5 of the Well Completion Report Part I) shall be submitted to the Commission. The Well Completion Report Part I can be obtained by contacting staff or at www.hawaii.gov/dlnr/cwrm/forms.htm

Because groundwater in Hawaii is a public trust, and adverse effects at one well may affect other water resources, any violation of the above conditions, or any other provision of the Hawaii Administrative Rules, may be subject to fines of up to $5,000/day. The Commission needs your help and asks that you do your part in utilizing this shared resource. We prefer to work with you in meeting the goal of protecting our ground water resources together.

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

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director

c: Hawaii Department of Water Supply
   Diamond Construction and Water Well Drilling
September 26, 2007

Mr. Curt Albrecht
16-540 Keaau-Pahoa Rd.2 PMB 34
Keaau, HI 96749

Dear Mr. Albrecht:

Certificate of Pump Installation Completion for Well No. 3687-48

We are pleased to inform you that the Pump Installation work permitted for the Kula Well (Well No. 3687-48) is complete and acceptable and welcome you as a new member to the community of well owners and groundwater users in Hawaii. This certificate of pump installation completion allows you to commence pumping your well for reasonable & beneficial water use.

To protect Hawaii’s natural ground water resources for the benefit of all, the following requirements apply to the use of your well:

1. If the well is not in use it must be properly capped.

2. If the well is to be abandoned then the landowner must cause a licensed contractor to apply for a well abandonment permit in accordance with §13-168-12(f) prior to any well sealing or plugging work.

3. In the event that the well operator and/or landowner changes, the Commission shall be notified of the change prior to the change, and all forms shall be transferred to the new owner.

4. In the event the benchmark in the concrete base of the well is altered in any way, an updated elevation survey (page 5 of the Well Completion Report Part I) shall be submitted to the Commission. The Well Completion Report Part I can be obtained by contacting staff or at www.hawaii.gov/dlnr/cwrm/forms.htm.

5. Your approved pump has a capacity of 16 gpm at a head of 162 ft. In the future, pump replacements of equal or lesser capacity will not require an additional permit from the Commission, but will require the submission of a Well Completion Report Part II by the licensed pump installer. If the pump replacement is greater than the existing pump, you will need to apply for a new pump installation permit.
6. The landowner shall cause the well operator to maintain the installed 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 a monthly basis, on forms provided by the Chairperson (attached), in accordance with §13-168-7, HAR.

7. 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. The authorization to drill a well and/or install a pump shall not constitute a determination of correlative water rights. The landowner and well operator are notified that the quantity of water taken from the well and/or the pump capacity could be reduced by the Commission in the future.

8. In the event that your installed pump is less than 70 gallons per minute, and no elevation survey has been completed, you may be required to do one in the future.

Because groundwater in Hawaii is a public trust, and adverse effects at one well may affect other water resources, any violation of the above conditions, or any other provision of the Hawaii Administrative Rules, may be subject to fines of up to $5,000/day. The Commission needs your help and asks that you to do your part in utilizing this shared resource. We prefer to work with you in meeting the goal of protecting our ground water resources together.

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

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director

RI: ss
Encl: Water Use Report Forms

c: Hawaii Department of Water Supply
   Diamond Construction and Water Well Drilling
### Well Check Program
#### 4/1/04 - Revised for update to Well Standards (February 2004)

#### Data Input

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<th>Description</th>
<th>Value</th>
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<td>Well Number</td>
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<tr>
<td>Well Name</td>
<td>Kula</td>
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<tr>
<td>Ground Elevation</td>
<td>77.6</td>
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<tr>
<td>Cement Grout</td>
<td>78.8</td>
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<td>Grouting Method</td>
<td>other</td>
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<td>Hole Diameter</td>
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<td>Total Depth</td>
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<td>Depth to Water</td>
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<td>Solid Casing Material</td>
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<td>Solid Casing Specification</td>
<td>Schedule 40</td>
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<td>Solid Casing Wall Thickness</td>
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<td>Open Casing Length</td>
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#### Results

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</tr>
<tr>
<td>Theoretical Thickness of Aquifer</td>
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</tr>
<tr>
<td>1/4 Aquifer Thickness</td>
<td>16.4</td>
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<tr>
<td>Depth of Well below Sea Level</td>
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<tr>
<td>Well Casing</td>
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<tr>
<td>Minimum Wall Thickness Material</td>
<td>PVC plastic</td>
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<td>Minimum Wall Thickness Standard</td>
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<td>Minimum Length of Solid Casing</td>
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<td>Casing Material</td>
<td>Schedule 40</td>
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<td>(for PVC only - check for 200' limit)</td>
<td>in compliance</td>
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<tr>
<td>Annular Space</td>
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<tr>
<td>Depth of Grouting</td>
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<tr>
<td>Calculated Depth of Grouting</td>
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<tr>
<td>Thickness of Annular Space</td>
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</tr>
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State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
WELL COMPLETION REPORT - PART I
Well Construction

Instructions: Please print in ink or type and send completed report (with attachments, if applicable) to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. The Commission may not accept incomplete reports. This form shall be submitted within 60 days of the completion of work. For assistance, please consult the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at (808) 586-0228. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlnr/wrm.

Well Completion Report - Part I

1. State Well No.: 3687-48
   Well Name: Kula
   Island: Hawaii

2. Address: 15-1587 5th Ave., HPP, Keaau, HI 96749
   Tax Map Key: 1-5-054-235

3. Drilling Company: Diamond Drilling and Pump

4. Drilling method used during construction: Rotary

5. Date Well Construction (drilled, cased, grouted) completed: 8/21/07

In addition to the driller's log, if a geologic log was prepared, please submit with this form.

6. Was the subject well cored? □ Yes □ No

7. Step-Drawdown Test completed? □ No □ Yes Attach Step-Drawdown Test Form (12/17/97 SDPTD Form)

8. Constant Rate Aquifer Test completed? □ No □ Yes Attach Constant Rate Aquifer Test Form (12/17/97 CRPTD Form)

Water Level Data:

<table>
<thead>
<tr>
<th>Reference Point Elevation</th>
<th>Depth to Water (ft.)</th>
<th>Water Level</th>
<th>Date/Time of Measurement</th>
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</thead>
<tbody>
<tr>
<td>Ground: 77.6 ft.msl</td>
<td>77.6</td>
<td>77.6</td>
<td>8/21/07 10:00 AM</td>
</tr>
<tr>
<td>Ground: 77.6 ft.msl</td>
<td>77.6</td>
<td>77.6</td>
<td>8/21/07 10:30 AM</td>
</tr>
<tr>
<td>Ground: 77.6 ft.msl</td>
<td>77.6</td>
<td>77.6</td>
<td>8/21/07 11:30 AM</td>
</tr>
</tbody>
</table>

Chloride: 107 ppm
Temperature: 86 °F

Initial encountered during drilling
This should also be filled in on the driller's log

Just prior to casing installation
After casing installation
This information should be before any pump tests are performed with casing installed

As-built section filled in completely

Attach photograph of well and concrete pad showing benchmark on concrete pad.

Remarks:

Licensed Driller

Rod Diamond
C-57 Lic. No. BC 23379

Signature

Date: 8/27/07
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

- Hole Diameter: **12 in.**
- Elevation at top of casing: **78.6 ft., sat**
- Bench mark elevation: **78 ft., sat** (Survey to nearest 0.01 ft.)
- Ground Elevation: **77.6 ft., sat**
- Minimum of 2 Radius & 4" Thick Concrete Pad

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
  - And compliant with (check one or more):
    - ASTM A242 or A806
    - Type E
    - Type S
    - Grade B
    - Other
- Stainless Steel: (check one):
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)
- ABS Plastic conforms to ASTM F490 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic conforms to ASTM F490 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
  - And compliant with (check one or more):
    - ASTM A242 or A806
    - Type E
    - Type S
    - Grade B
    - Other
- Stainless Steel: (check one):
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)
- ABS Plastic conforms to ASTM F490 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
  - Schedule 120
- PVC Plastic conforms to ASTM F490 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

WCR1 Form 10/18/04 Page 2 of 5
WELL NUMBER: 3687-48

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, Chlorides PPM</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 87.6</td>
<td>Basalt, water @77.6 ft., CL 107 ppm</td>
<td>8/17/07</td>
</tr>
<tr>
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</tbody>
</table>

Remarks:
Latitude: N 19 degrees 36 min. 19 sec.

Longitude: W 154 degrees 57 min. 43 sec.

SKETCH OF WELL LOCATION
(Referenced to permanent landmark, i.e. building, road, fence, etc.)
Well Elevation

Benchmark Elevation EST. 78

I certify that the elevation shown above:
1) Was done in accordance with acceptable surveying practices
2) Is accurate to the nearest 0.01 ft
3) Is referenced to mean sea level

Surveyor

License No.

Date
WELL CONSTRUCTION PERMIT

Kula Well, Well No. 3687-48

Note: This permit shall be prominently displayed at the construction site until the work is completed.

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 Kula Well (Well No. 3687-48) at TMK 1-5-054:235, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work authorized by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.
2. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.
3. The well construction permit shall be for construction and testing of the well only. The permittee shall coordinate with the Chairperson and conduct a pumping test in accordance with the HWCPIS (the latest pump test worksheet can be obtained by contacting Commission staff or at www.hawaii.gov/dlnr/cwrm/forms.htm). The permittee shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson. No withdrawal of water shall be made for purposes other than testing without a Certificate of Pump Installation Completion. The permitted pump capacity described on the pump installation permit may be reduced in the event that the pump test does not support the capacity.
4. In basal ground water, the depth of the well may not exceed one-fourth (1/4) of the theoretical thickness (41 times initial head) of the basal ground water unless otherwise authorized by the Chairperson.
5. The permittee shall incorporate mitigation measures to prevent construction debris from entering the aquatic environment, to schedule work to avoid periods of high rainfall, and to revegetate any cleared areas as soon as possible.
6. In the event that historically significant remains such as artifacts, burials or concentrations of shells or charcoal are encountered during drilling, the permittee shall stop work and immediately contact the Department of Land and Natural Resources' State Historic Preservation Division. Work may recommence only after written concurrence by the State Historic Preservation Division.
7. The proposed well construction shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to construct the well shall not constitute a determination of correlative water rights.
8. The Well Completion Report Part I shall be submitted to the Chairperson within sixty (60) days after completion of work (please contact staff or visit www.hawaii.gov/dlnr/cwrm/forms.htm for current list).
9. The permittee shall comply with all applicable laws, rules, and regulations.
10. The well construction permit application and any related documents are subject to the HWCPIS. If the HWCPIS are not available, any variances from the HWCPIS shall be approved by the Chairperson.
11. The work proposed in the well construction permit is specified. The permit may be extended by the Chairperson no later than the date the 60-day test period expires.
12. If the well is not to be used it must be properly capped in accordance with §13-168-1(2d)
13. The permittee, its successors, and assigns shall indemnify the Chairperson for property damage, personal injury, or death arising out of or resulting from any activity related to the permit, or related to or connected with the granting of the permit.
14. This permit shall apply to the location shown on the construction permit in accordance with Hawaii Administrative Rules.
15. Special conditions in the attached cover transmittal letter.

Date of Approval: May 18, 2007
Expiration Date: May 18, 2009

ALLAN A. SMITH, Interim Chairperson
Commission on Water Resource Management

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

Driller's Signature: ___________________________ C-57 License #: C-23379 Date: ___________________________
Printed Name: Rod Diamond Firm or Title: Diamond Construction and Water Well Drilling

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

Attachment
MEMO and ROUTE SLIP (ver. 8/31/07) 08/31/07

WCR 2 Check for Well No. 3687-48 (survey to regulation memo)

1. **Pump Tests Check** *(special condition of PIP? Yes/No)*
   - D. England: [Check]
   - If no, describe deficiency

<table>
<thead>
<tr>
<th>Step—Drawdown Test:</th>
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<tbody>
<tr>
<td>followed WCPI Stds</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>analysis attached</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>proposed pump cap o.k.</td>
<td>No</td>
<td>No</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Aquifer Pump Test:</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>followed WCPI Stds</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>T &amp; S analysis attached</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

   2. **Drawdown at 1-mile radius is _______ ft.**

<table>
<thead>
<tr>
<th>Potential Well Interference:</th>
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<tbody>
<tr>
<td></td>
<td>No</td>
<td>No</td>
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</table>

   | Potential Stream Impacts: | |
   |---------------------------| |
   | stream names: | |

<table>
<thead>
<tr>
<th>Additional Testing or Data Required:</th>
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<tr>
<td></td>
<td>No</td>
<td>No</td>
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<tr>
<th>Pump Test Comments Attached:</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>No</td>
<td>No</td>
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</tbody>
</table>

2. **Pump Installation Check** Mitch Ohye: [Check]
   - data complete
   - followed Special Cond & Elev.
   - well database updated

3. **Charley/Ryan** (initial) take action based on above analysis

   ATTACHMENTS FOR ACCEPTANCE:
   - 1WCR2 ACCEPTANCE LETTER
   - 2PUMP INST. COMPLETION CERTIFICATE
   - 3METER INSTALL. REPORT (IF NECESSARY)
   - 4WUR FORM (if necessary)

   - To be sent to driller
   - To be sent to landowner/operator
   - Staff internal checks

4. Roy (initial) check(Entered WCR 2/PIGC accept date into database)

5. Susan Hoagbin (initial) finalize

6. Faith Ching (initial) enter into WUR database

7. Charley/Ryan file
<p>| | |</p>
<table>
<thead>
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</table>
| 1. | **State Well No.**: 3687-48  
|   | **Well Name**: Kula  
|   | **Island**: Hawaii  |
| 2. | **Address**: 15-1587 5th Ave., HPP, Keaau, HI 96749  
|   | **Tax Map Key**: 1-5-054-235  |
| 3. | **Pump Installation Company**: Diamond Drilling and Pump  |
| 4. | **Date Pump Installed**: 8-21-07  |
| 5. | **PERMANENT PUMP INFORMATION**  
|   | **Pump Type, Make, Serial No.**: SUB/ GRUNDFOS/ B10010008-PL0722US  
|   | **Rated Capacity**: 16 gpm at head of: 162 ft.  
|   | **Motor Type, H.P., Voltage, rpm**: FRANKLIN/3/4 HP/ 230 V/ 3450 RPM  
|   | **Pump type (check one)**:  
|   | □ Deep Well Turbine  
|   | □ Rotary  
|   | □ Propeller  
|   | X Submersible  
|   | □ Rotary-Displacement  
|   | □ Reciprocating  
|   | □ Centrifugal  
|   | □ Rotary-Gear  
|   | □ Impulse  
| 6. | **Method of flow measurement**:  
|   | X Flowmeter  
|   | □ Weir  
|   | □ Open Pipe  
|   | □ Orifice*  
|   | □ Other*, explain below  
|   | *attach schematic  
| 7. | **Fill in the as-built section on the other side of this sheet.**  
| 8. | **Attach the rating curve for the installed pump.**  
| 9. | **Attach photograph of well clearly showing the benchmark on the concrete pad, the well head, and the method of flow measurement.**  
| 10. | **Well Owner**: Curt Albrecht  
|    | 15-1587 5th Ave.  
|    | Keaau, HI 96749  
|    | C: 808-271-7164  
| 11. | **Land Owner**: Same  

**Pump Installation Contractor (print)**  
Rod Diamond  
C-57/C-57a/A Lic. No. BC 23379
Bench mark elevation surveyed to nearest 0.01 ft. = 78 ft. mean sea level

Elevation of top of chase tube = N/A ft. mean sea level

Pump intake depth = 84 ft. (referenced to bench mark)

Chase tube depth = N/A ft. (referenced to bench mark)

If airline installed, bottom of airline elevation = N/A ft. mean sea level
PERFORMANCE CURVES  16 GPM  MODEL 16S

LOW RANGE: 10 - 20 GPM
OUTLET SIZE: 1\(\frac{1}{4}\)" NPT
NOMINAL DIA. 4"

OPERATING RANGE: 10 to 20 GPM
CAPACITIES BELOW 10 GPM
SEE MODEL 10S

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Performance conforms to ISO 9906, 1999 (E) Annex A
Minimum submergence is 2 feet.
PUMP INSTALLATION PERMIT
Kula Well, Well No. 3687-48

Note: This permit shall be prominently displayed at the site until the work is completed

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 Kula Well (Well No. 3687-48) at TMK 1-5-034:225, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

1. The Chairperson to 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. No withdrawal of water shall be made other than for testing until a Certificate of Pump Installation Completion has been issued by the Commission.

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

4. The pump installation permit shall be for installation of a 12 gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.

5. A water-level measurement access shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels.

6. The permittee shall install an approved meter or other appropriate means for measuring and reporting withdrawals and appropriate devices or means for measuring chlorides and temperature at the well head.

7. Well Completion Report Part II shall be submitted to the Chairperson within 60 days after completion of work. This form can be obtained by contacting staff or on the internet at www.hawaii.gov/dlnr/cwrm.

8. The permittee, well operator, and/or well owner shall comply with all applicable laws, rules, and ordinances, and non-compliance may be grounds for revocation of this permit.

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

10. 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 Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than the date the permit expires.

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

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

Date of Approval: May 18, 2007
Expiration Date: May 18, 2009

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 and the pump installer 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.

Installer's Signature: [Signature]
Printed Name: Rod Diamond
C-57, C-57a, or A License #: C-23379
Firm or Title: Diamond Construction and Water Well Drilling

Please sign both copies of this permit, return one to the Chairperson, and retain the other for your records.
**COMMISSION ON WATER RESOURCE MANAGEMENT**

**ROUTE SLIP FOR PERMIT ISSUANCE 4/17/07**

<table>
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<tr>
<th>FROM: RYAN</th>
<th>DATE: 6/8/07</th>
<th>SUSPENSE DATE:</th>
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**TO:**
- CHING, F.
- CHONG, R.
- DANBARA, S.
- ENGLAND, D.
- FUJI, N.
- HARDY, R.
- HOAGBIN, S.
- ICE, C.
- IMATA, R.
- KIMURA, J.
- NAKIMA, L.
- OKY, M.
- SAKODA, E.
- SWANSON, S.
- UYENO, D.
- YODA, K.
- YOSHINAGA, M.

**WELL NUMBER:** 3687-48  
**WELL NAME:** Kula

<table>
<thead>
<tr>
<th>application type</th>
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<tbody>
<tr>
<td>1 WCP COVER LETTER</td>
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<td>2 WCP</td>
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<tr>
<td>3 WELL CHECK PRINTOUT</td>
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<tr>
<td>4 PIP COVER LETTER</td>
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<tr>
<td>5 PIP</td>
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</tbody>
</table>

**COMMENTS:**
- 6 SDWB
- 7 WWB
- 8 CWB
- 9 LD
- 10 HP
- 11 LUC  
  - not in conservation district
- 12 OCCL  
  - not in conservation district
- 13 SMA  
  - not in SMA

**NOTES:**
- DRILLER: Rod Diamond
- TMK: 1-5-054:235
- PUMP CAPACITY: 12
- WELL OWNER: Curt Albrecht
- LAND OWNER: Curt Albrecht
- COMMENT DEADLINE: 5/18/07
Ref: 3687-48.wcp

June 22, 2007

Mr. Rod Diamond
Diamond Construction and Water Well Drilling
HCR #3 Box 14073
Keauau, HI 96749

Dear Mr. Diamond:

Well Construction Permit
Kula Well (Well No. 3687-48)

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

Special Conditions

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

Please refer to the Permit Processes Worksheet (transmitted with your acknowledgement letter) for further information regarding the process of drilling a well and installing a pump.

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

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

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

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

Sincerely,

ALLAN A. SMITH
Interim Chairperson

Enclosures

c: Curt Albrecht (with applicable comments – DOH SDWB, WWB, CWB)
   USGS
   Hawaii DWS
WELL CONSTRUCTION PERMIT

Kula Well, Well No. 3687-48

Note: This permit shall be prominently displayed at the construction site until the work is completed.

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 Kula Well (Well No. 3687-48) at TMK 1-5-054:235, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96802, shall be notified, in writing, at least two (2) weeks before any work authorized by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

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

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

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

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

6. In the event that historically significant remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and immediately contact the Department of Land and Natural Resources' State Historic Preservation Division. Work may recommence only after written concurrence by the State Historic Preservation Division.

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

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

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

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

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

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

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

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

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

Date of Approval: May 18, 2007
Expiration Date: May 18, 2009

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

Driller's Signature: ___________________________ C-57 License #: C-23379 Date: ___________________________
Printed Name: Rod Diamond Firm or Title: Diamond Construction and Water Well Drilling

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

Attachment
June 22, 2007

Ref: 3687-48.pip

Mr. Rod Diamond
Diamond Construction and Water Well Drilling
HCR #3 Box 14073
Keeau, HI 96749

Dear Mr. Diamond:

Pump Installation Permit
Kula Well (Well No. 3687-48)

Enclosed are two (2) originals of your approved Pump Installation Permit for the captioned well(s) that authorize permanent pump installation work for your well(s). As part of the Chairperson’s approval, the following special conditions were added and are part of your permit under Permit Condition 11:

Special Conditions

1. If the elevation benchmark needs to be altered, the permittee, well operator, and/or well owner shall ensure that the benchmark is transferred (or the well resurveyed) and documentation of the new benchmark shall be submitted to the Commission within sixty (60) days after the pump is installed.

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

The permittee is responsible for all conditions of the permit. This includes ensuring the submission of a completed Well Completion Report Part II form within sixty (60) days after the pump installation work is completed. Be advised that you may be subject to fines of up to $5,000 per day for any violations of your permit conditions starting from the permit approval date.

Please sign both permit originals and return one for our files.

IMPORTANT - Pump installation shall not commence until a fully signed permit is returned to the Commission.

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

Sincerely,

[Signature]

ALLAN A. SMITH
Interim Chairperson

Enclosure

c: Curt Albrecht (with applicable comments – DOH SDWB, WWB, CWB)
USGS
Hawaii DWS
PUMP INSTALLATION PERMIT
Kula Well, Well No. 3687-48

Note: This permit shall be prominently displayed at the site until the work is completed

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 Kula Well (Well No. 3687-48) at TMK 1-5-054:235, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

1. The Chairperson to 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. No withdrawal of water shall be made other than for testing until a Certificate of Pump Installation Completion has been issued by the Commission.

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

4. The pump installation permit shall be for installation of a 12 gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.

5. A water-level measurement access shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels.

6. The permittee shall install an approved meter or other appropriate means for measuring and reporting withdrawals and appropriate devices or means for measuring chlorides and temperature at the well head.

7. Well Completion Report Part II shall be submitted to the Chairperson within 60 days after completion of work. This form can be obtained by contacting staff or on the internet at www.hawaii.gov/dlnr/cwrm.

8. The permittee, well operator, and/or well owner shall comply with all applicable laws, rules, and ordinances, and non-compliance may be grounds for revocation of this permit.

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

10. 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 Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than the date the permit expires.

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

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

Date of Approval: May 18, 2007
Expiration Date: May 18, 2009

ALLAN A. SMITH, Interim Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the pump installer 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.

Installer's Signature: __________________________ C-57, C-57a, or A License #: C-23379 Date: ________________
Printed Name: Rod Diamond Firm or Title: Diamond Construction and Water Well Drilling

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

Attachments
## Well Check Program

**4/1/04 - Revised for update to Well Standards (February 2004)**

### Data Input

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Number</td>
<td>3687-48</td>
</tr>
<tr>
<td>Well Name</td>
<td>Kula</td>
</tr>
<tr>
<td>Ground Elevation</td>
<td>85</td>
</tr>
<tr>
<td>Cement Grout</td>
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</tr>
<tr>
<td>Grouting Method</td>
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<td>Hole Diameter</td>
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<td>Solid Casing Wall Thickness</td>
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<td>Open Casing Length</td>
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### Results

#### Well Depth

<table>
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<tr>
<td>Theoretical Thickness of Aquifer</td>
<td>41</td>
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<tr>
<td>1/4 Aquifer Thickness</td>
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<tr>
<td>Depth of Well below Sea Level</td>
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#### Well Casing

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<tr>
<td>Material</td>
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<td>Wall Thickness Provided</td>
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<td>Minimum Length of Solid Casing</td>
<td>75.6</td>
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<td>Length of solid casing Provided</td>
<td>80 okay</td>
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<tr>
<td>Casing Material</td>
<td>Schedule 40</td>
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<tr>
<td>(for PVC only - check for 200' limit)</td>
<td>in compliance</td>
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#### Annular Space

<table>
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<td>Depth of Grouting</td>
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<td>Thickness of Annular Space</td>
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Sections:

- Section 2.2
- Section 2.4(b)
- Section 2.4(c)
- Section 2.4(d)
- Section 2.6(c)
- Section 2.6(d)
April 17, 2007

TO: Russell Tsuji, Administrator
   Land Division

FROM: W. Roy Hardy, Hydrologic Program Manager
   Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
   Kula Well (Well No. 3687-48) TMK 1-5-054:235

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. Please respond by returning this cover memo form by May 18, 2007. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

Resp
Attachment(s)

RESPONSE:
[ ] A water lease/permit is required of this applicant and an application for such will be requested by our division.

X A water lease/permit is not required of this applicant.

[ ] A water lease/permit has been obtained by the applicant through lease no. ____________________.

[ ] Other relevant Land Division rules/regulations, information, or recommendations are attached.

[ ] No objections

X Other comments: Original source of private title was issued prior to statehood.

Contact Person: Gary Martin Phone: 587-0421

Signed: ________________________ Date: MAY 29, 2007
TO: Honorable Chiyome L. Fukino, M.D., Director  
Department of Health  
Attention: Director's Office  
Harold Yee, Wastewater Branch  
Stuart Yamada, Safe Drinking Water Branch  
Alec Wong, Clean Water Branch

FROM: Peter T. Young, Chairperson  
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application  
Kula Well (Well No. 3687-48)

TRANSMITTED. April 17, 2007

TO: Honorable Chiyome L. Fukino, M.D., Director  
Department of Health  
Attention: Director's Office  
Harold Yee, Wastewater Branch  
Stuart Yamada, Safe Drinking Water Branch  
Alec Wong, Clean Water Branch

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Commission on Water Resource Management

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Kula Well (Well No. 3687-48)

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Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 808-684-6893.

R: ss  
Attachment(s)

RESPONSE:

This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or less than 50 people 5 days per year) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR) Title 11, Chapter 89, Rules Relating to Potable Water Systems, §§1-20-29.

If this well is used to supply both potable and non-potable purposes in a single system, the user shall change cross-connections and backflow prevention devices by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by clearly labeling all non-potable pipes with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested.

This well is not a source of potable water and is not subject to Safe Drinking Water Regulations.

Upon receipt of information, a source of possible wastewater contamination [1] is not located near the proposed well site (information attached).

An NPDES permit is required.

Other relevant DHE rules/regulations, information, or recommendations are attached.

In the event that the location of the well changes but is still within the parcel described on this application, our division considers the comments to still be applicable, and we do not need to review the new location.

No comments/objections.

Contact Person: Shari Sugita  
Phone: 808-443-0899

Signed: ________________  
Date: 1/25/07

[Signature]
The Department of Health, Clean Water Branch has the following comments:

For Well-Drilling Activities

Any discharge to State waters of treated process wastewater effluent associated with well drilling activities is regulated by Hawaii Administrative Rules, Title 11, Chapter 55, Appendix I, effective September 22, 1997. Treated process wastewater effluent covered by this general permit includes well drilling slurries, lubricating fluids wastewaters, and well purge wastewaters. This general permit does not cover well pump testing. The applicable Notice of Intent Forms and filing fee shall be submitted at least thirty (30) days before the start of discharge to the Department of Health, Clean Water Branch at 919 Ala Moana Boulevard, Room 301, Honolulu, Hawaii 96814-4920 or P.O. Box 3378, Honolulu, Hawaii 96801-3378. Inquiries may be directed to the Clean Water Branch at (808) 586-4309 or by fax at (808) 586-4352.

For Well Pump Testing

The discharger shall take all measures necessary to prevent the discharge of pollutants from entering State waters. Such measures shall include, if necessary, containment of the initial discharge until the discharge is essentially free of pollutants. If the discharge is entering a stream or river bed, best management practices shall be implemented to prevent the discharge from disturbing the clarity of the receiving water. If the discharge is entering a storm drain, the discharger must obtain written permission from the owner of that storm drain prior to discharge. Furthermore, best management practices shall be implemented to prevent the discharge from collecting sediments and other pollutants prior to entering the storm drain.

JS/cr
April 17, 2007

TO: Honorable Chiyome L. Fukino, M.D., Director
    Department of Health
    Attention: Director's Office
    Harold Yee, Wastewater Branch
    Stuart Yamada, Safe Drinking Water Branch
    Alec Wong, Clean Water Branch

FROM: Peter T. Young, Chairperson
      Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
         Kula Well (Well No. 3687-48)

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We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by May 18, 2007. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

RESPONSE:

1. This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-29.

2. This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year or 15 service connections) and if the well water is used for drinking, the private owner should test for bacteriological and chemical presence before initiating such use and routinely monitor the water quality thereafter. However, if future planned use from this source increases to meet the public water system definition then Director of Health approval is required prior to implementation.

3. If the well is used to supply both potable and non-potable purposes in a single system, the user shall eliminate cross-connections and backflow connections by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by clearly labeling all non-potable spigots with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested.

4. It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations.

5. For the applicant's information, a source of possible wastewater contamination is not located near the proposed well site (information attached).

6. An NPDES permit is required.

7. Other relevant DOH rules/regulations, information, or recommendations are attached.

In the event that the location of the well changes but is still within the parcel described on this application, our division considers the comments to still be applicable, and we do not need to review the new location.

Signed: Ron Morikami on Oahu
Phone: 933-0401
Date: 4-23-2007
A septic tank file has been found and the following information is provided. In general, the Department of Health has reviewed and approved of the plans based on the information submitted as verification that a treatment individual wastewater system (IWS) such as a septic tank was constructed and authorized to be used for wastewater disposal from a building/dwelling.

<table>
<thead>
<tr>
<th>Tax Map Key</th>
<th>Septic Tank File #</th>
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</thead>
<tbody>
<tr>
<td>(3) 1.5 054 235</td>
<td>5657</td>
</tr>
</tbody>
</table>

Owner: Tony Ealie
Lot Location: 1pp

IWS BPA: / / Inspection: 3/31/2005
System Approved: / / Last BPA: / /

Treatment Type / Disposal Via: Septic tank
Use For: 3 bedrooms
Designed By: Ronald Nickel
Percolation Rate / Capacity: 1 min/in / 1000 gallons

For further information, you may call the Wastewater Branch engineer as listed:

- Oahu: Johnny Ong, Wastewater Branch (808)586-4294 Fax 586-4300.
- Maui: Roland Tejano, Maui District Health Office (808)984-8232 Fax 984-8237.
- Kona: Dane Hiromasa, Kealakekua Health Center (808)322-1983 Fax 322-1511.
- Hilo: Jerry Nunogawa, Hawaii District Health Office (808)933-0401 Fax 933-0400.
- Kauai: Lori Vetter, Kauai District Health Office (808) 241-3323 Fax 241-3566.
TO:       Honorable Chiyome L. Fukino, M.D., Director
          Department of Health
          Attention: Director's Office
          Harold Yee, Wastewater Branch
          Stuart Yamada, Safe Drinking Water Branch
          Alec Wong, Clean Water Branch

FROM:     Peter T. Young, Chairperson
          Commission on Water Resource Management

SUBJECT:  Well Construction/Pump Installation Permit Application
          Kula Well (Well No. 3687-48)

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Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Linsa of the Commission staff at 587-0255.

Rf:ss
Attachment(s)

RESPONSE:

This well qualifies as a source which will serve as a source of portable water to a public water system (defined as serving 25 or more people at least 60 days per year or 15 or more service connections and meet review criteria of review to comply with Hawaii Administrative Rules (HARS) Title 11, Chapter 20, Rules Relating to Potable Water Systems, 811-20-29.

This well does not qualify as a source serving a public water system serving less than 25 people or more people at least 60 days per year or 15 service connections and all of the water used for drinking, the private owner should test for bacteriological and chemical analysis before installing such uses and regularly monitor the water quality thereafter. However, if the planned use has been increased from this source to serve 25 or more people, the appropriate Hawaii Administrative Rules (HARS) Title 11, Chapter 20, Rules Relating to Potable Water Systems, 811-20-29.

If the well is used to supply both potable and non-potable water as a single system, the user shall designate separate connections by physically separating potable and non-potable systems by an air gap or approved check valve or pressure breaker, and by clearly labeling all non-potable systems with wording noting to prevent contamination of non-potable water. Backflow prevention devices should be routinely inspected and tested.

It does not appear that this well will be used for non-consumptive purposes and is not subject to Safe Drinking Water Regulations.

For the applicant's information, a source of possible wastewater contamination [1] is [ ] located near the proposed well site (information attached).

An NDPS permit is required.

Other relevant OBS rules, regulations, information, or recommendations are attached.

In the event that the location of the well changes but is still within the parcel described on the application, our division considers the comments to still be applicable, and we do not need to review the new location.

No comments/objections.

Contact Person: __________________________ Phone: __________________________

Signed: __________________________ Date: ______/____/07
Safe Drinking Water Branch
Standard Comments
March 11, 2004

Safe Drinking Water Branch

The Safe Drinking Water Branch administers programs in the areas of: 1) public water systems, 2) underground injection control; and 3) groundwater protection. Our general comments on projects are as follows.

Public Water Systems

- Federal and state regulations define a public water system as a system that serves 25 or more individuals at least 60 days per year or has at least 15 service connections. All public water system owners and operators are required to comply with Hawaii Administrative Rules, Title 11, Chapter 20, titled Rules Relating to Potable Water Systems.

- All new public water systems are required to demonstrate and meet minimum capacity requirements prior to their establishment. This requirement involves demonstration that the system will have satisfactory technical, managerial and financial capacity to enable the system to comply with safe drinking water standards and requirements.

- Projects that propose development of new sources of potable water serving or proposed to serve a public water system must comply with the terms of Section 11-20-29 of Chapter 20. This section requires that all new public water system sources be approved by the Director of Health prior to its use. Such approval is based primarily upon the submission of a satisfactory engineering report which addresses the requirements set in Section 11-20-29.

- The engineering report must identify all potential sources of contamination and evaluate alternative control measures which could be implemented to reduce or eliminate the potential for contamination, including treatment of the water source. In addition, water quality analyses for all regulated contaminants, performed by a laboratory certified by the State Laboratories Division of the state of Hawaii, must be submitted as part of the report to demonstrate compliance with all drinking water standards. Additional parameters may be required by the Director for this submittal or additional tests required upon his or her review of the information submitted.

- All sources of public water system sources must undergo a source water assessment which will delineate a source water protection area. This process is preliminary to the creation of a source water protection plan for that source and activities which will take place to protect the source of drinking water.
Projects proposing to develop new public water systems or proposing substantial modifications to existing public water systems must receive approval by the Director of Health prior to construction of the proposed system or modification. These projects include treatment, storage and distribution systems of public water systems. The approval authority for projects owned and operated by a County Board or Department of Water or Water Supply has been delegated to them.

All public water systems must be operated by certified distribution system and water treatment plant operators as defined by Hawaii Administrative Rules, Title 11, Chapter 11-25 titled; Rules Pertaining to Certification of Public Water System Operators.

All projects which propose the use of dual water systems or the use of a non-potable water system in proximity to an existing potable water system to meet irrigation or other needs must be carefully designed and operate these systems to prevent the cross-connection of these systems and prevent the possibility of backflow of water from the non-potable system to the potable system. The two systems must be clearly labeled and physically separated by air gaps or reduced pressure principle backflow prevention devices to avoid contaminating the potable water supply. In addition backflow devices must be tested periodically to assure their proper operation. Further, all non-potable spigots and irrigated areas should be clearly labeled with warning signs to prevent the inadvertent consumption of non-potable water. Compliance with Hawaii Administrative Rules, Title 11, Chapter 11-21 titled; Cross-Connection and Backflow Control is also required.

All projects which propose the establishment of a potentially contaminating activity (as identified in the Hawaii Source Water Assessment Plan) within the source water protection area of an existing source of water for a public water supply should address this potential and activities that will be implemented to prevent or reduce the potential for contamination of the drinking water source.

For further information concerning the application of capacity, new source approval, operator certification, source water assessment, backflow/cross-connection prevention or other public water system programs, please contact the Safe Drinking Water Branch at 586-4258.

Underground Injection Control (UIC)

- Injection wells used for the subsurface disposal of wastewater, sewage effluent, or surface runoff are subject to environmental regulation and permitting under Hawaii Administrative Rules, Title 11, Chapter 11-23, titled Underground Injection Control (UIC). The Department of Health's approval must be first obtained before any injection well construction commences. A UIC permit must be issued before any injection well operation occurs.

- Authorization to use an injection well is granted when a UIC permit is issued to the injection well facility. The UIC permit contains discharge and operation limitations,
monitoring and reporting requirements, and other facility management and operational conditions. A complete UIC permit application form is needed to apply for a UIC permit.

- A UIC permit can have a valid duration of up to five years. Permit renewal is needed to keep an expiring permit valid for another term.

For further information about the UIC permit and the Underground Injection Control Program, please contact the UIC staff of the Safe Drinking Water Branch at 586-4258.

**Groundwater Protection Program**

- Projects that propose to develop a golf course are asked to use the *Guidelines Applicable to Golf Courses in Hawai'i (Version 6)* in order to address certain groundwater protection concerns, as well as other environmental concerns.
**COMMISSION ON WATER RESOURCE MANAGEMENT**

**ROUTE SLIP FOR NEW APPLICATIONS**

**FROM:** RYAN
**DATE:** 27-Feb-07
**SUSPENSE DATE:** 6-Mar-07

**TO:**
- CHING, F.
- FUJII, N.
- GOODING, K.
- HARDY, R.
- HIGA, D.
- HOAGBIN, S.
- ICE, C.
- IMATA, R.
- KUNIMURA, I.

**INIT:**
- NAKANA, L.
- NAKANO, D.
- OHYE, M.
- SAKODA, E.
- SWANSON, S.
- UYENO, D.
- YODA, K.
- YOSHINAGA, M.

**PLEASE:**
- Approval
- Signature
- Information
- See Me
- Review & Comment
- Take Action
- Type Draft acknow letter
- Type Final, label file folder, update People.db
- File
- Xerox copies

**WELL NUMBER:** 3689-48  
**WELL NAME:** Kula

**ATTACHMENTS FOR APPLICATION PROCESSING**

- TRANS. LETTER
- PERMIT PROCESS TABLE
- CWRM MAP
- APPL. FORM (11 COPIES)
- USGS MAPS (11 COPIES)
- TAX MAPS (11 COPIES)
- PARCEL OWNER VERIF.
- CONTRACTOR VERIF.
- ALL INFO FILLED IN
- BACKGROUND CHECK
- $25 FEE DEPOSIT SLIP
- DHPC/DUP/PSMA pre-screen

**FOLDER:**
- MADE NEW FILE FOLDER, ATTACHED
- FILE FOLDER ALREADY MADE, IN FILE CABINET

**INCOMPLETE ACTION DATES:**

<table>
<thead>
<tr>
<th>DATE</th>
<th>ACTION</th>
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<tbody>
<tr>
<td>2/28</td>
<td>Rev Ed Items 21-23 not checked</td>
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**1.5.54 - 235**
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</table>

**TOTAL** $ 75.00

**REMARKS:**

- LINE (1) Kay-Mount Well
- LINE (2) Kula Well
- LINE (3) Carlee Rose Well
- LINE (4) 
- LINE (5) 
- LINE (6) 
- LINE (7) 
- LINE (8) 
- LINE (9) 
- LINE (10)
GENERAL LICENSEE

License ID: CT-23379  
Active/Inactive: ACTIVE

Name: Rodney K Diamond

Trade Name:

STATUS: CURRENT, VALID & IN GOOD STANDING

Entity: Individual  
Business Code: Sole Owner

Orig Lic Date: 10/12/2001  
Expire Date: 09/30/2008

Class Prefix: BC  
Special Privilege:

Restriction:  
Education Code:

Business Addr: HCR #3 Box 14073 Keaau HI 96749

Mailing Addr:

Click here to enter search criteria for prior complaints history ->
For prior complaints and disciplinary history, contact licensing and business information center at (808) 587-3295.
Assessed Values reflect tax year 2006.

Search criteria: TMK Taxkey 3-1-5-54-235

<table>
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<th>Subdiv/Condo</th>
<th>Address/Owner/Lessee</th>
<th>Bds</th>
<th>Bths</th>
<th>Land area</th>
<th>Liv area</th>
<th>Last Sale</th>
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<td>Hawaiian Paradise Park</td>
<td>15- ALBRECHT, 1587 CURTIS O &amp; 5th Ave MAHSHID Z</td>
<td>1.00 ac</td>
<td>1,584</td>
<td>3/1/2007 DEED</td>
<td>$430,0</td>
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This information has been supplied by third parties and has not been independently verified by Hawaii Information Service and is, therefore, not guaranteed.
**WELL LOCATION INFORMATION**

<table>
<thead>
<tr>
<th>State Well</th>
<th>Kula Well</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Hawaii</td>
</tr>
</tbody>
</table>

**WELL OPERATOR’S NAME/COMPANY**

- **Curt Albrecht**

**Well Operator’s Mailing Address**

- PMB 342
- 15-540 Keaau-Pahoa Rd. #2
- Keaau, HI 96749

**Well Operator’s Phone**

- 808-271-7164

**Well Operator’s Fax**

- 808-982-9759

**WELL LOCATION MAP**

- Site Photo

**PROPOSED WELL CONSTRUCTION**

- **Proposed Work:**
  - Construct New Well
  - Modify Existing Well
  - Abandon/Seal Well

- **Construction Type:**
  - Drilled
  - Shaft
  - Tunnel

**PROPOSED PUMP INSTALLATION**

- **Proposed Work:**
  - Install New Pump
  - Replace Pump

- **Proposed Pumping Rate:**
  - 15 gallons per minute
  - 120 gallons per minute

- **Proposed Amount of Withdrawal:**
  - 200 gallons per day

Additional notes:

- **Well Driller:** Rodney K Diamond
- **Pump Installer:** Rodney K Diamond

**OTHER LEGAL REQUIREMENTS**

- **Conservation District Use Permit (CDUP):**
  - Required, CDUP # approved

- **Special Management Area Permit (SMAP):**
  - Required, SMAP # approved

- **HCR #3 Box 14073 Keaau HI 96749**

**APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT**

For Official Use Only:

- **RECEIVED:**
- **07 FEB 14 A8 46**

**STATE OF HAWAII**

**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 612, Honolulu, Hawaii 96809. Application must be accompanied by 5 copies and a non-refundable filing fee of $26.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 808-668-2200. For further information and updates on this application form, visit http://www.hawaii.gov/dlnr/wrm.
**PROPOSED WELL SECTION** (Please attach schematic if different from diagram provided below)

**Hole Diameter:** 12 inches

Minimum of 2' Radius & 4' Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)

**Ground Elevation:** 85 ft, msl

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**Casing:**

- Stainless Thermoset Plastic: (check one) o Filament Wound Resin Pipe conforming to ASTM F480 o Centrifugally Cast Resin Pipe conforming to ASTM D2987 o Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517 o Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950 o PTFE Fluorocarbon Tubing conforming to ASTM D3296

- Stainless Steel: compliant with (check one or more): o ASTM A139 o Schedule 80

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

- Thermoset Plastic: (check one) o Filament Wound Resin Pipe conforming to ASTM D2996

- 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

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**Materials:**

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

- Stainless Steel: (check one): o ASTM A409 (production wells) o ASTM A312 (monitor wells)

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

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

- Thermoset Plastic: (check one) o Centrifugally Cast Resin Pipe conforming to ASTM D2987

- 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

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**Mud and Grout:**

- For non-salt water Basalt Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Depth of Well Limit = (Water Elevation - ) Example: Estimated + 2 ft. Water Level Elev. Bottom Elevation of Well Limit = (2-1) = -16.5 ft.

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**Solid Casing Material:**

For non-salt water Basalt Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Depth of Well Limit = (Water Elevation - ) Example: Estimated + 2 ft. Water Level Elev. Bottom Elevation of Well Limit = (2-1) = -16.5 ft.
April 17, 2007

Mr. Rodney Diamond
Diamond Construction and Water Well Drilling
HCR #3 Box 14073
Keeau, HI 96749

Dear Mr. Diamond:

Well Construction/Pump Installation Permit Application for Well No. 3687-48

We acknowledge receipt, on February 28, 2007, of your completed Well Construction/Pump Installation permit application and filing fee for the Kula Well (Well No. 3687-48). You can expect your application to be processed within ninety (90) days from this date.

For your information, the attached table describes the process, responsible parties, and deadline requirements for drilling or modifying a well and installing, modifying, or replacing a pump.

By this acceptance letter, we are also notifying the well operator/landowner that water may not be pumped for purposes other than testing until the certificate of well construction/pump installation completion letter is issued to the well operator and landowner. Additionally, the permitted pump capacity described on the pump installation permit may be reduced in the event that the pump test does not support the capacity. No certificate of pump installation will be issued until the Commission has determined that the pump capacity will not have adverse effects on the aquifer, other nearby wells, or streams. In other words, you may need to remove the pump and install a smaller pump at the Commission’s discretion before you can withdraw water for purposes other than testing.

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

Sincerely,

W. ROY HARDY
Hydrologic Program Manager

cc: Curt Albrecht
TO: Honorable Chiyome L. Fukino, M.D., Director
   Department of Health
   Attention: Director's Office
   Harold Yee, Wastewater Branch
   Stuart Yamada, Safe Drinking Water Branch
   Alec Wong, Clean Water Branch

FROM: Peter T. Young, Chairperson
   Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
   Kula Well (Well No. 3687-48)

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump
Installation permit application.

We would appreciate your comments on the captioned application for any conflicts or
inconsistencies with the programs, plans, and objectives specific to your department. Please respond by
returning this cover memo form by May 18, 2007. If we do not receive comments or a request for
additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this
permit application, request additional information, or request additional review time, please contact Ryan
Imata of the Commission staff at 587-0255.

RESPONSE:

1. This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60
days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative
   Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-29.

2. This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year or 15 service
   connections) and if the well water is used for drinking, the private owner should test for bacteriological and chemical presence before initiating such use
   and routinely monitor the water quality thereafter. However, if future planned use from this source increases to meet the public water system definition
   then Director of Health approval is required prior to implementation.

3. If the well is used to supply both potable and non-potable purposes in a single system, the user shall eliminate cross-connections and backflow
   connections by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by clearly labeling all
   non-potable spigots with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected
   and tested.

4. It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations.

5. For the applicant's information, a source of possible wastewater contamination is not located near the proposed well site (information attached).

6. An NPDES permit is required.

7. Other relevant DOH rules/regulations, information, or recommendations are attached.

8. In the event that the location of the well changes but is still within the parcel described on this application, our division considers the comments to still be
   applicable, and we do not need to review the new location.

9. No comments/objections

Contact Person: __________________________________________ Phone: __________________________

Signed: __________________________ Date: __________________________
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 821
HONOLULU, HAWAII 96809

April 17, 2007

TO: Russell Tsuji, Administrator
Land Division

FROM: W. Roy Hardy, Hydrologic Program Manager
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
Kula Well (Well No. 3687-48) TMK 1-5-054:235

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. Please respond by returning this cover memo form by May 18, 2007. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

RI: ss
Attachment(s)

RESPONSE:
[ ] A water lease/permit is required of this applicant and an application for such will be requested by our division.

[ ] A water lease/permit is not required of this applicant.

[ ] A water lease/permit has been obtained by the applicant through lease no. ________________________.

[ ] Other relevant Land Division rules/regulations, information, or recommendations are attached.

[ ] No objections

[ ] Other comments:

Contact Person: ____________________________ Phone: ____________________________

Signed: ____________________________ Date: ____________________________
TO: Melanie Chinen, Administrator
Historic Preservation

FROM: W. Roy Hardy, Hydrologic Program Manager
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
Kula Well (Well No. 3687-48) TMK 1-5-054:235

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. Please respond by returning this cover memo form by May 18, 2007. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255. If you require additional information regarding specific information that can be provided by the applicant, please contact the applicant directly at the contact information provided on the application form.

RESPONSE:

[ ] This is a [ ] public (county or state) project [ ] private project and [ ] will [ ] may disturb historic sites.

[ ] We concur that the work described under this permit will not disturb historic sites.

[ ] We do not concur that the work described under this permit will not disturb historic sites. We require the following for our concurrence:

Contact Person: ___________________________ Phone: ________________

Signed: ________________________________ Date: ________________