<table>
<thead>
<tr>
<th>TO:</th>
<th>INIT. TO:</th>
<th>INIT:</th>
<th>FOR:</th>
<th>PLEASE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHENG, C.</td>
<td></td>
<td></td>
<td>Approval</td>
<td>See Me</td>
</tr>
<tr>
<td>CHONG, R.</td>
<td></td>
<td></td>
<td>Signature</td>
<td>Review &amp; Comment</td>
</tr>
<tr>
<td>DANBARA, S.</td>
<td></td>
<td></td>
<td>Information</td>
<td>Take Action</td>
</tr>
<tr>
<td>ENGLAND, D.</td>
<td></td>
<td></td>
<td></td>
<td>Type Draft</td>
</tr>
<tr>
<td>FUJII, N.</td>
<td></td>
<td></td>
<td></td>
<td>Type Final</td>
</tr>
<tr>
<td>HARDY, R.</td>
<td></td>
<td></td>
<td></td>
<td>File</td>
</tr>
<tr>
<td>HOAGBIN, S.</td>
<td></td>
<td></td>
<td></td>
<td>Xerox copies</td>
</tr>
<tr>
<td>ICE, C.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMATA, R.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional note: "The original document was not found in the folder. No copy in folder, had appeared in your background check."
PUMP INSTALLATION PERMIT
Sugar Cove AOAO Irrigation, Well No. 5424-15

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 Sugar Cove AOAO Irrigation (Well No. 5424-15) at TMK (2) 3-8-002:003, Maui, 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 (HAR).

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 100 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 sixty (60) days after completion of work (please contact staff or visit www.hawaii.gov/dlnr/cwrmlresources permits.htm for current form).

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, if relevant, any related staff submittal approved by the Commission are incorporated into this permit by reference.

10. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

11. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

12. 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.

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

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

Date of Approval: May 8, 2009
Expiration Date: May 8, 2011
LAURA H. THIELEN, 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: Michael Robertson
Printed Name: Michael Robertson
Firm or Title: Wailani Drilling Services, Inc.

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

Attachments
May 22, 2009

Mr. Will Steele
Wailani Drilling Services, Inc.
P.O. Box 523
Puunene, HI 96784

Dear Mr. Steele:

Pump Installation Permit
Sugar Cove AOAO Irrigation (Well No. 5424-15)

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 14:

**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.

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 copy to the Commission office 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 Charley Ice of the Commission staff at 587-0218.

Sincerely,

[Signature]
LAURA H. THIELEN
Chairperson

Enclosure

c: Sugar Cove AOAO (with applicable comments -- DOH SDWB, WWB, CWB, DWS)
   USGS
   Maui DWS
Just got it (sugar cove pip attached) Also a hard copy going out to you in the mail tomorrow, Mahalo, Michael

To: waikane2@msn.com
Subject: Sugar Cove and Byer
From: Charley.F.Ice@hawaii.gov
Date: Tue, 11 May 2010 14:17:20 -1000

Just a reminder -- we still need the signed PIP from 5424-15 (Sugar Cove), and the actual SMA document for Byer.

The New Busy think 9 to 5 is a cute idea. Combine multiple calendars with Hotmail. Get busy. signed pip0001.pdf
PUMP INSTALLATION PERMIT
Sugar Cove AAOO Irrigation, Well No. 5424-15

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 Sugar Cove AAOO Irrigation (Well No. 5424-15) at TMK (2) 3-8-002:003, Maui, 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 (HAR).

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 100 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 sixty (60) days after completion of work (please contact staff or visit www.hawaii.gov/dlnr/cwrm/resources_permits.htm for current form).

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, if relevant, any related staff submittal approved by the Commission are incorporated into this permit by reference.

10. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

11. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

12. 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.

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

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

Date of Approval: May 8, 2009
Expiration Date: May 8, 2011

LAURA H. THIELEN, 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: Michael Robertson, C-57, C-57a, or A License #: 29485 Date: June 2, 2011

Printed Name: Michael Robertson
Firm or Title: Wailani Drilling Services, Inc.

Please sign both copies of this permit, return one copy to the Commission office, and retain the other for your records.
Mr. Will Steele
Wailani Drilling Services, Inc.
P.O. Box 523
Puunene, HI 96784

Dear Mr. Steele:

Pump Installation Permit
Sugar Cove AOAO Irrigation (Well No. 5424-15)

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 14:

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.

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 copy to the Commission office 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 Charley Lee of the Commission staff at 587-0218.

Sincerely,

[Signature]

Laura H. Theilen
Chairperson

Enclosure
c: Sugar Cove AOAO (with applicable comments – DOH SDWB, WWB, CWB, DWS)

USGS
Maui DWS
<table>
<thead>
<tr>
<th>FROM: Charley</th>
<th>DATE: 04 Mar 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>TO: (file)</td>
<td>INIT. TO: INIT.</td>
</tr>
<tr>
<td>IMATA, R.</td>
<td>HARDY, R.</td>
</tr>
<tr>
<td>MILLS, D.</td>
<td>SAKODA, E.</td>
</tr>
<tr>
<td>UYENO, D.</td>
<td>NAKAMA, L.</td>
</tr>
<tr>
<td>CHONG, R.</td>
<td>TORRES, R</td>
</tr>
<tr>
<td>CHENG, C.</td>
<td></td>
</tr>
<tr>
<td>LAROUX, E.</td>
<td></td>
</tr>
<tr>
<td>OHYE, M.</td>
<td></td>
</tr>
<tr>
<td>FUJI, N.</td>
<td></td>
</tr>
<tr>
<td>YOSHINAGA, M.</td>
<td></td>
</tr>
<tr>
<td>SWANSON, S.</td>
<td></td>
</tr>
<tr>
<td>KUNIMURA, I.</td>
<td></td>
</tr>
<tr>
<td>ENGLAND, D.</td>
<td></td>
</tr>
</tbody>
</table>

**PLEASE:**
- Review & Comment
- Type Draft
- Type Final
- File
- Copies: ___
- Take Action:
  - Please See Me

**FOR:**
- Approval
- Signature
- Information

---

"need to change database, be aware of new WUR 10"

---

"Done - listed CPMM as WURReponer."

"see my people database spreadsheet."
Mr. Ice:
Per our conversation, attached is a letter requesting a change of address for Sugar Cove Well (Well No. 5424-15). If you have any questions please feel free to contact our office. Thank you.

Monique Bechert
Commercial Properties of Maui Management
1962B Wells Street
Wailuku, Maui, Hawaii 96793
808-243-8600

CONFIDENTIALITY: This message is intended only for the use of the individual or entity to which it is addressed and contains information that is privileged, confidential, or otherwise exempt from disclosure. If you are not the intended recipient or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you received this communication in error, please notify me immediately and delete and/or destroy the message. Thank you.
February 17, 2010

Mr. Javier Burgo
Sugar Cove AOAO
320 Paani Place
Paia, HI 96779

Dear Mr. Burgo:

Certificate of Pump Installation Completion for Sugar Cove Well
Well No. 5424-15 (TMK (2) 3-8-002:003

We are pleased to inform you that the Pump Installation work permitted for the Sugar Cove Well (Well No. 5424-15) is complete and acceptable and welcome you as a new member to the community of well owners and ground water 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), HAR, 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 prior to the change.

4. In the event the benchmark in the concrete base of the well is altered in any way, an updated version of the Well Elevation page of the Well Completion Report Part I shall be submitted to the Commission. If a licensed surveyor had estimated the original benchmark elevation then a licensed surveyor must establish the new benchmark elevation. The Well Elevation portion of the Well Completion Report Part I can be obtained by contacting Commission staff or at www.hawaii.gov/dlnr/cwrm/forms.htm.
5. Your approved pump has a capacity of 149 gpm at a head of 148 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 an annual basis, on forms provided by the Chairperson (attached), in accordance with §13-168-7, HAR. Blank water use report forms are also available at www.hawaii.gov/dlnr/cwrm/resources_permits.htm

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.

Because ground water 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 per 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 Charley Ice of the Commission staff at 587-0218 or toll-free at 984-2400 (Maui), extension 70218.

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director

CI:ss
Encl: Water Use Report Forms

c: Maui Department of Water Supply
   Wailani Drilling, Inc.
Mr. Michael Robertson  
Wailani Drilling, Inc.  
110 West Uahi Way  
Wailuku, HI 96793

Dear Mr. Robertson:

Well Completion Report Part II for Sugar Cove Well (Well No. 5424-15)

Thank you for transmitting the manufacturer’s performance curve for the pump in the captioned well on February 11, 2010. We acknowledge that your Well Completion Report Part II for the Sugar Cove Well (Well No. 5424-15) and is now satisfactory.

This completes your obligations under the pump installation permit. A certificate of pump installation completion will be issued to the well operator/landowner and you will receive a copy. The certificate transfers responsibility of all aspects of well usage and maintenance from you to the well operator/landowner.

If you have any questions, please contact Charley Ice of the Commission staff at 587-0218 or toll-free at 984-2400 (Maui), extension 70218.

Sincerely,

KEN C. KAWAHARA, P.E.  
Deputy Director

Cl: ss  
c: Sugar Cove AOAO
Thanks Charley. sugar cove pump curve0001.pdf
Performance Curves 150 GPM Model 150S

FLOW RANGE: 30 - 220 GPM
OUTLET SIZE: 3" NPT
NOMINAL DIA. 6"

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

4" MOTOR STANDARD, 2-10 HP/3450 RPM
6" MOTOR STANDARD, 7.5-60 HP/3450 RPM.
8" MOTOR STANDARD, 75 HP/3525 RPM.

Alternate motor sizes available.

Performance conforms to ISO 9906 Annex A @ 5 ft. min. submergence.
MEMO and ROUTE SLIP (ver. 7/14/2009) 09/10/09

WCR 2 Check for Well No. 5424-15 (survey to regulation memo)

1. From Charley Ryan  

2. **Pump Tests Check (special condition of PIP? Yes/No)**  D. England  

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>If no, describe deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

   - **Step-Drawdown Test:**
     - Followed WCPI Stds analysis attached  
     - If no, describe deficiency  
     - 70 gpm no test required  

   - **Aquifer Pump Test:**
     - Followed WCPI Stds T & S analysis attached  
     - If no, describe deficiency  
     - 50 gpm no test required  

   - **Potential Well Interference:**
     - Potential Stream Impacts:  
       - Stream names:  

   - **Additional Testing or Data Required:**
     -  

   - **Pump Test Comments Attached:**
     -  

   - **Proposed Pump Capacity is OK:**
     -  

3. **Pump Installation Check**  Mitch Ohye  R. Torres  

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>If no, describe deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

   - Data complete followed Special Cond & Elev.
   - Well database updated  

4. **Charley/Ryan**  

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

   - Staff internal checks  

   - To be sent to driller
     - Via email
       - Still waiting

   - To be sent to landowner/operator

5. Roy  

6. Susan Hoagbin  

7. Ken  

8. Faith Ching  

9. Charley/Ryan  

   - File
TRANSMITTAL

Date: September 4, 2009

To: Charley Ice  
Commission on Water Resources Management  
Department of Land & Natural Resources  
State of Hawaii  
P.O. Box 621  
Honolulu, Hawaii 96809

From: Jacob Freeman

Subject: SUGAR COVE IRRIGATION WELL  
TMK: (2) 3-8-002:003

We are sending you one (1) copy of the Well Completion Report-Part II for the subject project.

Copy: Mary Jane Kramer – Commercial Properties of Maui Management, Inc. (2 copies)  
Michael Robertson – Wallani Drilling Services, Incorporated
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
WELL COMPLETION REPORT - PART II

Pump Installation

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 587-0225. For updates to this form or additional information, please visit our website at http://www.hawaii.gov/dlnr/cwrm/

1. State Well No.: 5424-15
   Well Name: Sugar Cove Irrigation Well
   Island: Maui

2. Address: 320 Pa'ani Place, Paia, HI 96779
   Tax Map Key: (2) 3-8-002:003


4. Date Pump Installed: 08/07/09

5. PERMANENT PUMP INFORMATION
   Pump Type, Make, Serial No.: GRUNDFOS, 150S75-4 Serial No. 5700391433566
   Rated Capacity: 149.7 gpm at head of: 148 ft.
   Motor Type, H.P., Voltage, rpm: Submersible, 3ph, 7.5 hp, 230 volts, 3450 RPM
   Pump type (check one): Submersible

6. Method of flow measurement:
   Flowmeter w/ totalizer Manufacturer Carlon Model no. 150 JL Size 1-1/2"
   Other, explain and 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
    Company: Sugar Cove AOAO
    Contact: Janie Kramer
    Address: 1962-B Wells Street, Wailuku, HI 96793
    Phone: 808-243-8600 ext. 2
    Fax: 808-249-0894

11. Land Owner
    Company: Sugar Cove AOAO
    Contact: Janie Kramer
    Address: 1962-B Wells Street, Wailuku, HI 96793
    Phone: 808-243-8600 ext. 2
    Fax: 808-249-0894

12. Remarks

Pump Installation Contractor (print) Michael Robertson C-57/C-57a/A Lic. No. 20115

Signature Date 08/28/09
7. AS-BUILT PUMP SECTION  (Please attach as-built if different from diagram provided below)

Bench mark elevation surveyed to nearest 0.01 ft. = 12.05 ft. mean sea level

Elevation of top of chase tube = 13.51 ft. mean sea level

Pump intake depth = -1.95 ft. (referenced to bench mark)

Chase tube depth = 0.05 ft. (referenced to bench mark)

If airline installed, bottom of airline elevation = N/A ft. mean sea level
Mr. Javier Burgo  
Sugar Cove AOAO  
320 Paani Place  
Paia, HI 96779  

Dear Mr. Burgo:

Certificate of Well Construction Completion for Well No. 5424-15 (TMK (2) 3-8-002:003)

We are pleased to inform you that the Well Construction work permitted for the Sugar Cove AOAO Well (Well No. 5424-15) is complete and acceptable and welcome you as a new member to the community of well owners and ground water users in Hawai‘i.

To protect Hawai‘i’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), HAR, 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 prior to the change.
5. In the event the benchmark in the concrete base of the well is altered in any way, an updated version of the Well Elevation page of the Well Completion Report Part I shall be submitted to the Commission. If a licensed surveyor had estimated the original benchmark elevation then a licensed surveyor must establish the new benchmark elevation. The Well Elevation portion of the Well Completion Report Part I can be obtained by contacting Commission staff or at our website at www.hawaii.gov/dlnr/cwrm/resources_permits.htm.

Because ground water in Hawai‘i 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 per 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 Charley Ice of the Commission staff at 587-0218 or toll-free at 984-2400 (Maui), extension 70218.

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director

Cl:ss

c: Maui Department of Water Supply  
Wailani Drilling Services, Inc.
September 11, 2009

Mr. Will Steele
Wailani Drilling Services, Inc.
110 West Uahi Way
Wailuku, HI 96793

Dear Mr. Steele:

Well Completion Report Part I for Well No. 5424-15

We received your Well Completion Report Part I for the Sugar Cove Well (Well No. 5424-15) on August 26, 2009 and acknowledge that it is complete.

This completes your obligation under the well construction permit. A certificate of well construction completion will be issued to the well operator/landowner and you will receive a copy. This certificate transfers responsibility of specific aspects of well usage and maintenance from you to the well operator/landowner.

If you have any questions, please contact Charley Ice of the Commission staff at 587-0218 or toll-free at 984-2400 (Maui), extension 70218.

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director

Cl: ss

c: Jacob Freeman, Ronald M. Fukumoto Engineering, Inc.
MEMO and ROUTE SLIP (ver. 07/21/09) 08/28/09

WCR 1 Check for Well No. 5424-15 (regulation/survey route)

1. From Charley Ryan (initial) Good candidate for Pollards (New means)

2. Well Log Check Geology Code for Well Index: TK Fm Name: Kula Volc. England BS (initial)

3. Pump Tests Check Diane England DS (initial)
   Yes No
   Step-Drawdown Test: followed WCPI Stds analysis attached □ □ □<70 gpm no test required
   Constant Rate Test: followed WCPI Stds analysis attached □ □ □<50 gpm no test required
   Potential Well Interference: □ □
   Potential Stream Impacts: □ □
   Additional Testing or Data Required: □ □
   Pump Test Comments Attached: □ □
   Proposed Pump Capacity is OK.: □ □

4. Construction Check Mitch Ohye (initial) R. Torres (initial)
   Yes No
   data complete □ □
   followed Special Cond & elevations □ □
   well database updated □ □
   location change significant? (SMA, CD, TMK) □ □
   Latitude NAD27 20 54 43
   Longitude 156 24 43
   NAD83 20 54 43
   156 24 32

5. 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/DHP)
5 WCR 1 Accept
6 WELL CONST. COMPLETION CERTIFICATE
7 USGS MAP (2x) not necessary – only WCP or BOTH.
8 PARCEL CHECK
9 WELL DATABASE/INPUT CHECK
10 PUMP TEST WORKSHEET
11 WELL & BUL CHECK/PAIN

6. Roy (initial) check (Entered WCR 1/WCCC accept date into database)
7. Susan Hoagbin (initial) finalize
8. Ken (initial) signature
9. Mitch (initial) Entered PIP issue date if attached/required
10. Charley/Ryan File
Pump Test Analysis – Comments

Well ID: 5424-15
Analysis Date: 9/3/09  Test Date: 8/7/09
Geologist: Diane England

Step Drawdown Test

Deviations From Pump Test Requirements
1. No deviations from the “Pump Test Requirements” guidance

Constant Rate Pumping Test

Deviations From Pump Test Requirements
1. No deviations from the “Aquifer Pump Test Procedures” guidance.

Drawdown Curve Comments
2. Estimated K=3,400 ft/d. Estimated T = 33,000 ft²/d.

Well Interference & Stream Impacts

1. Based on preliminary analysis, no adverse stream or well impacts are expected.

Other Comments

1. None

Proposed Pump Capacity OK? : YES
WELL ID: 5424-15

**INPUT**

<table>
<thead>
<tr>
<th>Construction:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Casing dia. (d_c)</td>
<td>6 Inch</td>
</tr>
<tr>
<td>Annulus dia. (d_w)</td>
<td>10 Inch</td>
</tr>
<tr>
<td>Screen Length (L)</td>
<td>8 Feet</td>
</tr>
</tbody>
</table>

**Depths to:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>water level (DTW)</td>
<td>10.2 Feet</td>
</tr>
<tr>
<td>Top of Aquifer</td>
<td>10.2 Feet</td>
</tr>
<tr>
<td>Base of Aquifer</td>
<td>20 Feet</td>
</tr>
</tbody>
</table>

**Annular Fill:**

| Across screen --         | Open Hole |
|                         | above screen -- Cement |
| Aquifer Material         | Permeable Basalt |

**FLOW RATE** 100 GPM

---

**COMPUTED**

- Aquifer thickness = 9.8 Feet
- Slope = 0.105769 Feet/log10

Input is consistent.

| K = 3400 Feet/Day |
| T = 33000 Feet²/Day |

\[ K = 3400 \text{ Feet/Day} \] is greater than likely maximum of 100 for Permeable Basalt

---

**REMARKS:** Cooper-Jacob analysis of single-well aquifer test

Analysis Program: USGS Aquifer Test Analysis Spreadsheets v.1.2, Open File Report 02-197
<table>
<thead>
<tr>
<th>Entry</th>
<th>Date Hr:Min:Sec</th>
<th>Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1/00 0:00:00</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>1/00 0:01:00</td>
<td>1.40</td>
</tr>
<tr>
<td>3</td>
<td>1/00 0:02:00</td>
<td>1.40</td>
</tr>
<tr>
<td>4</td>
<td>1/00 0:03:00</td>
<td>1.40</td>
</tr>
<tr>
<td>5</td>
<td>1/00 0:04:00</td>
<td>1.47</td>
</tr>
<tr>
<td>6</td>
<td>1/00 0:05:00</td>
<td>1.47</td>
</tr>
<tr>
<td>7</td>
<td>1/00 0:06:00</td>
<td>1.47</td>
</tr>
<tr>
<td>8</td>
<td>1/00 0:07:00</td>
<td>1.47</td>
</tr>
<tr>
<td>9</td>
<td>1/00 0:08:00</td>
<td>1.47</td>
</tr>
<tr>
<td>10</td>
<td>1/00 0:10:00</td>
<td>1.47</td>
</tr>
<tr>
<td>11</td>
<td>1/00 0:15:00</td>
<td>1.60</td>
</tr>
<tr>
<td>12</td>
<td>1/00 0:20:00</td>
<td>1.60</td>
</tr>
<tr>
<td>13</td>
<td>1/00 0:25:00</td>
<td>1.60</td>
</tr>
<tr>
<td>14</td>
<td>1/00 0:30:00</td>
<td>1.60</td>
</tr>
<tr>
<td>15</td>
<td>1/00 0:40:00</td>
<td>1.60</td>
</tr>
<tr>
<td>16</td>
<td>1/00 0:50:00</td>
<td>1.60</td>
</tr>
<tr>
<td>17</td>
<td>1/00 1:00:00</td>
<td>1.60</td>
</tr>
<tr>
<td>18</td>
<td>1/00 1:10:00</td>
<td>1.60</td>
</tr>
<tr>
<td>19</td>
<td>1/00 1:20:00</td>
<td>1.60</td>
</tr>
<tr>
<td>20</td>
<td>1/00 1:30:00</td>
<td>1.60</td>
</tr>
<tr>
<td>21</td>
<td>1/00 1:40:00</td>
<td>1.60</td>
</tr>
<tr>
<td>22</td>
<td>1/00 2:30:00</td>
<td>1.60</td>
</tr>
<tr>
<td>23</td>
<td>1/00 3:20:00</td>
<td>1.60</td>
</tr>
<tr>
<td>24</td>
<td>1/00 4:10:00</td>
<td>1.60</td>
</tr>
<tr>
<td>25</td>
<td>1/00 5:00:00</td>
<td>1.60</td>
</tr>
<tr>
<td>26</td>
<td>1/00 6:40:00</td>
<td>1.60</td>
</tr>
</tbody>
</table>
Constant Rate Pump Test
Well 5424-15 (8-7-09)

Pumping Rate
Well 5424-15 (8-7-09)
<table>
<thead>
<tr>
<th>Elapsed Time (min)</th>
<th>Drawdown (ft)</th>
<th>Pump Rates (gpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>1</td>
<td>1.4</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>1.4</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>1.4</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>1.47</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>1.47</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>1.47</td>
<td>100</td>
</tr>
<tr>
<td>7</td>
<td>1.47</td>
<td>100</td>
</tr>
<tr>
<td>8</td>
<td>1.47</td>
<td>100</td>
</tr>
<tr>
<td>10</td>
<td>1.47</td>
<td>100</td>
</tr>
<tr>
<td>15</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>20</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>25</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>30</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>40</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>50</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>60</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>70</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>80</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>90</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>100</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>150</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>200</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>250</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>300</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>400</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>500</td>
<td>1.6</td>
<td>100</td>
</tr>
</tbody>
</table>

Average: 100.00
<table>
<thead>
<tr>
<th>Time (min)</th>
<th>Drawdown (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>0.96</td>
</tr>
<tr>
<td>7</td>
<td>0.96</td>
</tr>
<tr>
<td>8</td>
<td>0.99</td>
</tr>
<tr>
<td>9</td>
<td>0.99</td>
</tr>
<tr>
<td>10</td>
<td>0.99</td>
</tr>
<tr>
<td>15</td>
<td>0.99</td>
</tr>
<tr>
<td>20</td>
<td>0.99</td>
</tr>
<tr>
<td>25</td>
<td>0.99</td>
</tr>
<tr>
<td>30</td>
<td>0.99</td>
</tr>
<tr>
<td>31</td>
<td>0.99</td>
</tr>
<tr>
<td>32</td>
<td>1.07</td>
</tr>
<tr>
<td>33</td>
<td>1.07</td>
</tr>
<tr>
<td>34</td>
<td>1.07</td>
</tr>
<tr>
<td>35</td>
<td>1.07</td>
</tr>
<tr>
<td>36</td>
<td>1.07</td>
</tr>
<tr>
<td>37</td>
<td>1.07</td>
</tr>
<tr>
<td>38</td>
<td>1.07</td>
</tr>
<tr>
<td>40</td>
<td>1.07</td>
</tr>
<tr>
<td>45</td>
<td>1.07</td>
</tr>
<tr>
<td>50</td>
<td>1.07</td>
</tr>
<tr>
<td>55</td>
<td>1.07</td>
</tr>
<tr>
<td>60</td>
<td>1.07</td>
</tr>
<tr>
<td>61</td>
<td>1.25</td>
</tr>
<tr>
<td>62</td>
<td>1.25</td>
</tr>
<tr>
<td>63</td>
<td>1.62</td>
</tr>
<tr>
<td>64</td>
<td>1.6</td>
</tr>
<tr>
<td>65</td>
<td>1.6</td>
</tr>
<tr>
<td>66</td>
<td>1.6</td>
</tr>
<tr>
<td>67</td>
<td>1.6</td>
</tr>
<tr>
<td>68</td>
<td>1.6</td>
</tr>
<tr>
<td>70</td>
<td>1.6</td>
</tr>
<tr>
<td>75</td>
<td>1.6</td>
</tr>
<tr>
<td>80</td>
<td>1.6</td>
</tr>
<tr>
<td>85</td>
<td>1.6</td>
</tr>
<tr>
<td>90</td>
<td>1.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time (min)</th>
<th>Discharge (gpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>31</td>
<td>75</td>
</tr>
<tr>
<td>60</td>
<td>75</td>
</tr>
<tr>
<td>61</td>
<td>100</td>
</tr>
<tr>
<td>90</td>
<td>100</td>
</tr>
</tbody>
</table>

Step Change
TRANSMITTAL

Date: August 24, 2009

To: Charley Ice
Commission on Water Resources Management
Department of Land & Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

From: Jacob Freeman

Subject: SUGAR COVE IRRIGATION WELL
TMK: (2) 3-8-002:003

We are sending you one (1) copy of the Well Completion Report-Part I for the subject project.

Copy: Mary Jane Kramer – Commercial Properties of Maui Management, Inc. (2 copies)
Michael Robertson – Wallani Drilling Services, Incorporated

CPMM04
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 587-0225. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlnr/wrmw/

1. State Well No.: 5424-15
   Well Name: Sugar Cove Irrigation Well
   Island: Maui

2. Address: 320 Pa'ani Place, Paia, Hi 96779
   Tax Map Key: (2) 3-8-002:003

3. Drilling Company: Wailani Drilling

4. Drilling method used during construction: ☒ Rotary ☐ Percussion ☐ Other (describe)

5. Date Well Construction (drilled, cased, grouted) completed: 8/7/09
   Attach Completed Driller's Log
   month/day/year

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:

9. Initial encountered during drilling
   (this should also be filled in on the driller's log)
   Reference point elevation
   Ground = 15 ft. msi
   Depth to water (feet) 15
   Water Level ft. above mean sea level (see note below) 0
   Date/time of measurement 8/6/09 12:30 pm

10. Just prior to casing installation
    Reference point elevation
    Ground = 11 ft. msi
    Depth to water (feet) 9
    Water Level ft. above mean sea level (see note below) 2
    Date/time of measurement 8/6/09 5 pm

11. After casing installation
    (this information should be before any pump tests are performed with casing installed)
    Chloride: 420 ppm, Temperature: 75.3 °F
    Reference point is not the benchmark, the difference between the benchmark and this point is:
    Ground elevation 1.05 ft.
    Depth to water (feet) 10.20
    Water Level ft. above mean sea level (see note below) 1.85
    Date/time of measurement 8/7/09 6 am

   note: for all elevations referenced to mean sea level, take the ground elevation (surveyed or estimated if survey not required at this time) and subtract the depth to the water level.

12. As-built section filled in completely ☒

13. Photograph of well and concrete pad showing benchmark on concrete pad attached ☒

14. GPS coordinates provided in degrees, minutes, seconds ☒

15. If a pump is not planned to be installed, please describe (below in the remarks section) how well is secured to prevent unauthorized access (example: lockable cover, threaded coupling, etc.)

16. Remarks:

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

Licensed Driller (print) Michael Robertson
C-57 Lic No 20115
Signature

Date 8/10/09
12. AS-BUILT WELL SECTION

(Please attach as-built if different from diagram provided below)

Hole Diameter: 14.5 in.

Elevation at top of casing: 12.05 ft., msl*
(to nearest 0.01 ft.)

Minimum of 2' Radius & 4' Thick Concrete Pad

Grouting method:
- Positive displacement (if annular space is less than two inches, attach photo of tremie)
- Other

Grouting:
- Cement Grout: 11 ft.
- Other

Ground Elevation: 11 ft., msl
- Surveyed
- Estimated

Solid Casing: (≥ 90% x (Ground Elev.-Water Level Elev))
- Length: 12 ft.
- Nominal Diameter: 6 in.
- Wall Thickness: 0.25 in.
- Bottom Elevation: -7.95 ft., msl

Open Casing:
- Perforated
- Screen
- Length: 8 ft.
- Nominal Diameter: 6 in.
- Wall Thickness: 0.25 in.
- Bottom Elevation: -7.95 ft., msl

Open Hole:
- Length: N/A
- Diameter: N/A
- Bottom Elevation: N/A

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 A606
  - Type E
  - Type S
  - Grade B
  - Other
- Stainless Steel: (check one):
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
  - Schedule 40
  - Schedule 80
  - Schedule 120
- Thermoset Plastic: (check one)
  - Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrifugally Cast Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:
- Carbon Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- And compliant with (check one or more):
  - ASTM A242 or A606
  - Type E
  - Type S
  - Grade B
  - Other
- Stainless Steel: (check one):
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
  - Schedule 40
  - Schedule 80
  - Schedule 120
- Thermoset Plastic: (check one)
  - Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrifugally Cast Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - FEP Fluorocarbon Tubing conforming to ASTM D3296

*msl = mean sea level

WCR1 Form 6/12/07 Page 2 of 5
**DRILLER'S LOG**

**WELL NUMBER:** 5424-15  
*In addition to the driller's log, if a geologic log was prepared, please submit with this form*

<table>
<thead>
<tr>
<th>Depths (ft)</th>
<th>Rock Description</th>
<th>Water Level</th>
<th>CI-</th>
<th>Dates</th>
<th>Depths (ft)</th>
<th>Rock Description</th>
<th>Water Level</th>
<th>CI-</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 5</td>
<td>Red Clay</td>
<td></td>
<td></td>
<td>8/5/09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 to 17</td>
<td>Blue Rock</td>
<td></td>
<td></td>
<td>8/5/09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 to 20</td>
<td>Soft Rock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pahoehoe (Water Bearing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

WCR1 Form 6/12/07 Page 3 of 5
Attach photos of completed well and concrete pad

NAD83:
Latitude: 20 degrees 54 min 31 sec
Longitude: 156 degrees 24 min 33 sec

SKETCH OF WELL LOCATION
(Referenced to permanent landmark, i.e. building, road, fence, etc.)
Provide Latitude and Longitude of well referenced to NAD83 to nearest second
Well Elevation

10-5A24.15 Sugar Cove 1ee.

Benchmark Elevation 12.05

Attach photos of completed well and concrete pad showing benchmark location.

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 5451 License No. 8/19/09 Date
### STEP-DRAWDOWN PUMP TEST DATA

(not required for wells producing < 100,000 gpd or 70 gpm)

- **Pumped Well No.:** 5424-15
- **Observation Well No.:** N/A
- **Pumped Well Name:** Sugar Cove
- **Distance between Obs. & Pumped Well:** N/A ft.
- **Target Q:** 100 gpm
- **Reference pt. for depth to water:** 12 ft. msl
- **Water level measurements by:** Yes electrical sounder  Pressure transducer  Airline
- **Static Water Level @ start of test:** 2 ft. msl
- **START TEST Date:** 8/7/09
- **Time of day:** 6 am
- **Flow Meter Reading Start:** 0 gallons

<table>
<thead>
<tr>
<th>Suggested Elapsed Time (min)</th>
<th>Actual Elapsed Time (min)</th>
<th>Depth to water (nearest 0.1 ft)</th>
<th>Drawdown S (unadjusted to nearest 0.1 ft)</th>
<th>Pumping rate Q (at least 3 steps) (gpm)</th>
<th>EC (μhos)</th>
<th>Cl⁻ (mg/l)</th>
<th>Temp. X °F or °C</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>-45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td></td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td></td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>0.96</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>0.96</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>0.99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>0.99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>0.99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>0.99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
<td>0.99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>0.99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chloride sample taken</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2 begin?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Flow Meter Reading Start:** 0 gallons
- **Time of day:** 6 am
- **Static Water Level @ start of test:** 2 ft. msl
- **Water level measurements by:** Yes electrical sounder  Pressure transducer  Airline
<table>
<thead>
<tr>
<th>Suggested Elapsed Time (min)</th>
<th>Actual Elapsed Time (min)</th>
<th>Depth to Water (nearest 0.1 ft)</th>
<th>Drawdown S (unadjusted to nearest 0.1 ft)</th>
<th>Pumping rate Q (at least 3 steps) (gpm)</th>
<th>EC (μmhos)</th>
<th>Cl (mg/l)</th>
<th>Temp. °F or °C</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11.19</td>
<td>11.27</td>
<td>11.27</td>
<td>11.27</td>
<td>11.27</td>
<td>11.27</td>
<td>11.27</td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>11.19</td>
<td>1.07</td>
<td>75</td>
<td>420</td>
<td>75</td>
<td>75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>11.27</td>
<td>75</td>
<td>1.07</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>11.27</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>11.27</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>11.27</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>11.27</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>11.27</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>11.27</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>11.27</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>11.27</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>11.27</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>11.27</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>11.27</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>11.27</td>
<td>75</td>
<td>420</td>
<td>75.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>11.45</td>
<td>75</td>
<td>11.45</td>
<td>11.45</td>
<td>11.45</td>
<td>11.45</td>
<td></td>
<td>Step 3</td>
</tr>
<tr>
<td>1.5</td>
<td>11.45</td>
<td>1.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>11.82</td>
<td>1.62</td>
<td>11.82</td>
<td>11.82</td>
<td>11.82</td>
<td>11.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>11.80</td>
<td>1.6</td>
<td>11.80</td>
<td>11.80</td>
<td>11.80</td>
<td>11.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>11.80</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>11.80</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>11.80</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>11.80</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>11.80</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>11.80</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>11.80</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>11.80</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>11.80</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>11.80</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>11.80</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Stop</td>
</tr>
<tr>
<td>Suggested elapsed time (min)</td>
<td>Actual elapsed time (min)</td>
<td>Depth To Water (nearest 0.1 ft)</td>
<td>Recovery Drawdown S (unadjusted to nearest 0.1 ft)</td>
<td>Pumping rate Q (gpm)</td>
<td>EC (umhos)</td>
<td>Cl- (mg/l)</td>
<td>Temp. X °F or °C</td>
<td>Data in this table is for:</td>
</tr>
<tr>
<td>----------------------------</td>
<td>---------------------------</td>
<td>-------------------------------</td>
<td>---------------------------------------------</td>
<td>----------------------</td>
<td>-----------</td>
<td>-----------</td>
<td>----------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>10.27</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>Pump off, start recovery</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>10.27</td>
<td>0.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td></td>
<td>10.27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>10.27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td></td>
<td>10.25</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>10.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>10.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>10.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>10.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>10.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>10.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>250</td>
<td></td>
<td>10.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

END TEST Date: 8/7/09 Time of day: 7:30am
ADDITIONAL REMARKS: Flow Meter 6.921 Gal 80% recovery achieved

Person in charge of pump test (print) Nate Robertson

Signature: [Signature]

The signature above indicates that the data reported on this form is accurate and true to the best of the person's knowledge who operated this pump test.
CONSTANT-RATE PUMP TEST DATA
(not required for wells producing < 50 gpm)

Pumped Well No. 5424-15
Pumped Well Name Sugar Cove
Target Q 100 gpm

Observation Well No. N/A
Distance between Obs. & Pumped Well N/A ft.

Water level measurements by: ☑ electrical sounder ☐ pressure transducer ☐ airline

START TEST Date: 8/7/09 Time of day: 9 am
Flow Meter Reading Start: 6,921 gallons

<table>
<thead>
<tr>
<th>Suggested elapsed time</th>
<th>Actual elapsed time</th>
<th>Depth to water (nearest 0.1 ft)</th>
<th>Drawdown S (unadjusted to nearest 0.1 ft)</th>
<th>Pumping rate Q (gpm)</th>
<th>EC (mS/cm)</th>
<th>Cl- (mg/l)</th>
<th>Temp. X °F or °C</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>-45</td>
<td>10.20</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-30</td>
<td>10.20</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-15</td>
<td>10.20</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>Start test</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>11.60</td>
<td>1.4</td>
<td>100</td>
<td>420</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>11.60</td>
<td>1.4</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>11.60</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>11.60</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>11.60</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>11.67</td>
<td>1.47</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>11.67</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>11.67</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>11.67</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>11.67</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>11.67</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>11.80</td>
<td>1.6</td>
<td>100</td>
<td>420</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>11.80</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>11.80</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>11.80</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>11.80</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>11.80</td>
<td>100</td>
<td></td>
<td>420</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>11.80</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suggested elapsed time (min)</td>
<td>Actual elapsed time (min)</td>
<td>Depth to water (nearest 0.1 ft)</td>
<td>Drawdown S (unadjusted to nearest 0.1 ft)</td>
<td>Pumping rate Q (gpm)</td>
<td>EC (umhos)</td>
<td>Cl⁻ (mg/l)</td>
<td>Temp. °F or °C</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------</td>
<td>-------------------------------</td>
<td>------------------------------------------</td>
<td>---------------------</td>
<td>-----------</td>
<td>-----------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>11.80</td>
<td></td>
<td></td>
<td>100</td>
<td>420</td>
<td>75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>11.80</td>
<td></td>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>11.80</td>
<td></td>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>11.80</td>
<td></td>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>11.80</td>
<td></td>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>11.80</td>
<td></td>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>250</td>
<td>11.80</td>
<td></td>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>11.80</td>
<td></td>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>400</td>
<td>11.80</td>
<td></td>
<td></td>
<td>100</td>
<td>420</td>
<td></td>
<td>Cl⁻ sample taken</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>11.80</td>
<td></td>
<td></td>
<td>100</td>
<td>420</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>700</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cl⁻ sample taken</td>
<td></td>
</tr>
<tr>
<td>900</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cl⁻ sample taken</td>
<td></td>
</tr>
<tr>
<td>1500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cl⁻ sample taken</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cl⁻ sample taken</td>
<td></td>
</tr>
<tr>
<td>2500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cl⁻ sample taken</td>
<td></td>
</tr>
<tr>
<td>3000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cl⁻ sample taken</td>
<td></td>
</tr>
<tr>
<td>4000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cl⁻ sample taken</td>
<td></td>
</tr>
<tr>
<td>5000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cl⁻ sample taken</td>
<td></td>
</tr>
<tr>
<td>6000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cl⁻ sample taken</td>
<td></td>
</tr>
<tr>
<td>7000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cl⁻ sample taken</td>
<td></td>
</tr>
<tr>
<td>8000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cl⁻ sample taken</td>
<td></td>
</tr>
<tr>
<td>9000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cl⁻ sample taken</td>
<td></td>
</tr>
<tr>
<td>10000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cl⁻ sample taken</td>
<td></td>
</tr>
</tbody>
</table>

Max possible duration, water level or quality did not stabilize for any 24 hour period.

Begin recovery data on next page

Flow meter reading at end of pumped period:

48,300 gals

1 Chloride sampling required
2 Use same ending drawdown figure as start for recovery
<table>
<thead>
<tr>
<th>Suggested elapsed time (min)</th>
<th>Actual elapsed time (min)</th>
<th>Depth to water (nearest 0.1 ft)</th>
<th>Recovery Drawdown S (unadjusted to nearest 0.1 ft)</th>
<th>Pumping rate Q (gpm)</th>
<th>EC (umhos)</th>
<th>Cl- (mg/l)</th>
<th>Temp. °F or °C</th>
<th>Data in this table is for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>10.30</td>
<td></td>
<td>0.1</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>10.30</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>10.30</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>10.30</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>10.30</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>10.27</td>
<td>0.07</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>10.27</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>10.27</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>10.24</td>
<td>0.04</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>10.24</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>10.24</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>10.24</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>10.20</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>10.20</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>10.20</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>10.20</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>10.20</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>10.20</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>10.20</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>10.20</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>10.20</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>10.20</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>10.20</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>10.20</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>250</td>
<td>10.20</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

END TEST  Date: 8/7/09  Time of day: 6:00 pm

ADDITIONAL REMARKS: ____________________________________________________________

Person in charge of pump test (print)  Nate Robertson

Signature: ________________________________________________________________

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

-3-
Charley,

Here’s two start work notices for you. Please let me know that you received them.

Thank you,

Leah

Notice to start work.doc  Notice to start work.doc
Notice to start work
Sugar Cove AOAO Well #5424-15

Dear Charley,

July 23, 2009

This is to inform you that we will be mobilizing our drill rig & equipment to this location and intend to start drilling within the next 3 weeks. Please let me know that you received this notification.

Thank you,
Leah Robertson
Assistant Project Coordinator
Did you get them this time? I don't know what happened. I have a sent message to you with these attached in my outbox! I'm confused! WCP0001.pdf WCP.pdf
WELL CONSTRUCTION PERMIT

Sugar Cove AAOO Irrigation, Well No. 5424-15

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 Sugar Cove AAOO Irrigation (Well No. 5424-15) at TMK (2) 3-8-002:003, Maui, 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 (HAR).

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/cwrmlresources/permits.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. If it can be shown that the well does not tap basal ground water then this condition may be waived after consultation with and acceptance by Commission staff. However, in no instance can the well be drilled deeper that one-half (1/2) of the theoretical thickness without Commission approval.

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/dlnr/cwrmlresources/permits.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, if relevant, any related staff submittal approved by the Commission are incorporated into this permit by reference.

11. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

12. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

13. 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.

14. 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(i), HAR, prior to any well sealing or plugging work.

15. 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.

16. 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 §13-168-17(i), HAR.

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

Date of Approval: May 8, 2009
Expiration Date: May 8, 2011

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 this 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 date of permit approval.

Driller's Signature: ________________________________  C-57 License #: 29485  Date: 6-2-09

Printed Name: Will Steele  Firm or Title: Wailani Drilling Services, Inc.

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

Attachment
Compute 12-Month Moving Average

12 Month Moving Average

MGD

Well Index  View Pumpage Selected Work  View Aquifer Wells Selected  View Final Output Detail  Print Report
<table>
<thead>
<tr>
<th>Island</th>
<th>i_name</th>
<th>Well ID</th>
<th>Well Name</th>
<th>Aquifer Code</th>
<th>Aquifer System</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-0037-001</td>
<td>Stoops</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-4626-001</td>
<td>Waiala Gulch</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-4726-001</td>
<td>Tmk 3-8-04</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-4727-001</td>
<td>Kihei Shaft</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-4727-007</td>
<td>Kealia Pond</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-4727-008</td>
<td>Zoolanir Ir</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-4822-001</td>
<td>Kula Meadows</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-4824-001</td>
<td>Kihei Expl</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-4825-001</td>
<td>Kihei Shaft</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-4926-001</td>
<td>Hawaiian Cement</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5125-001</td>
<td>Wailuku MW-1</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5125-002</td>
<td>Wailuku MW-2</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5126-001</td>
<td>Wailuku MW-3</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5126-004</td>
<td>Wailuku MW-4</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5126-005</td>
<td>Wailuku MW-5</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5126-006</td>
<td>Wailuku MW-6</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5220-001</td>
<td>Haliimaile</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5220-001</td>
<td>Haliimaile</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5224-002</td>
<td>Kuau-Newbro</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5230-001</td>
<td>Hamakuapoko</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5320-001</td>
<td>Hamakuapoko</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5320-002</td>
<td>Paia-Pump 2</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5321-001</td>
<td>Kaheka-Pump 18</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5323-001</td>
<td>Paia-Pump 17</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5420-001</td>
<td>Paia-MM-Pum 13</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5420-002</td>
<td>Paia-MM-Pum 17</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5420-003</td>
<td>Paia-Mill-Pum 13</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5423-002</td>
<td>Low Paia-Pump 16</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5424-001</td>
<td>Sprecklesville</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5424-002</td>
<td>Tmk 3-8-02-62</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5424-003</td>
<td>Tmk 3-8-02-62</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5424-004</td>
<td>Tmk 3-8-02-62</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5424-005</td>
<td>Tmk 3-8-01-49</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5424-006</td>
<td>Wark</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5424-009</td>
<td>Gerlach</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5424-012</td>
<td>Buzianis</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5424-013</td>
<td>Bastian</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5425-001</td>
<td>Sprecklesville</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5522-001</td>
<td>Kuau Pump 12</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5522-003</td>
<td>Kuau-Newbro</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5523-001</td>
<td>Paia-Ulmer</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5620-001</td>
<td>Maliko</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5620-002</td>
<td>Hokoana</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5620-003</td>
<td>Pauwela-Lewis 1</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5620-004</td>
<td>Pauwela-Lewis 2</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5620-005</td>
<td>Maliko Moretti 1</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5620-006</td>
<td>Maliko Moretti 2</td>
<td>60302</td>
<td>PAIA</td>
</tr>
<tr>
<td>6</td>
<td>MAUI</td>
<td>6-5621-001</td>
<td>Hookipa Park</td>
<td>60302</td>
<td>PAIA</td>
</tr>
</tbody>
</table>

Page 1
May 22, 2009

Mr. Will Steele
Wailani Drilling Services, Inc.
P.O. Box 523
Puunene, HI 96784

Dear Mr. Steele:

Pump Installation Permit
Sugar Cove AOAO Irrigation (Well No. 5424-15)

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 14:

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.

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 copy to the Commission office 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 Charley Ice of the Commission staff at 587-0218.

Sincerely,

[Signature]
LAURA H. THIELEN
Chairperson

Enclosure

c: Sugar Cove AOAO (with applicable comments – DOH SDWB, WWB, CWB, DWS)
    USGS
    Maui DWS
PUMP INSTALLATION PERMIT
Sugar Cove AOAO Irrigation, Well No. 5424-15

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 Sugar Cove AOAO Irrigation (Well No. 5424-15) at TMK (2) 3-8-002:003, Maui, 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 (HAR).

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 100 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 sixty (60) days after completion of work (please contact staff or visit www.hawaii.gov/dlnr/cwrm/resources_permits.htm for current form).

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, if relevant, any related staff submittal approved by the Commission are incorporated into this permit by reference.

10. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

11. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

12. 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.

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

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

Date of Approval: May 8, 2009
Expiration Date: May 8, 2011

LAURA H. THIELEN, 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 #: 29485 Date: ______________

Printed Name: Will Steele Firm or Title: Wailani Drilling Services, Inc.

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

Attachments
May 22, 2009

Mr. Will Steele
Wailani Drilling Services, Inc.
P.O. Box 523
Puunene, HI 96784

Dear Mr. Steele:

Well Construction Permit
Sugar Cove AOAO Irrigation (Well No. 5424-15)

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 17:

**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. Also, please contact the Noise Radiation and Indoor Air Quality Branch at 586-4700 to check compliance with construction noise permit requirements for this project.

2. Attached for your information is a copy of your county's Department of Water Supply comments related to their concerns.

3. Well depth shall not exceed one-fourth the theoretical aquifer thickness without first requesting a variance, with explanation.

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 copy to the Commission office 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 Charley Ice of the Commission staff at 587-0218.

Sincerely,

[Signature]
Laura H. Thielen
Chairperson

Enclosures
c: Sugar Cove AOAO (with applicable comments – DOH SDWB, WWB, CWB, HEER, DWS)
USGS
Maui DWS
WELL CONSTRUCTION PERMIT

Sugar Cove AOAO Irrigation, Well No. 5424-15

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 Sugar Cove AOAO Irrigation (Well No. 5424-15) at TMK (2) 3-8-002:003, Maui, 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 (HAR).

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/resources_permits.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. If it can be shown that the well does not tap basal ground water then this condition may be waived after consultation with and acceptance by Commission staff. However, in no instance can the well be drilled deeper than one-half (1/2) of the theoretical thickness without Commission approval.

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/dlnr/cwrm/resources_permits.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, if relevant, any related staff submittal approved by the Commission are incorporated into this permit by reference.

11. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

12. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

13. 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.

14. 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(0), HAR, prior to any well sealing or plugging work.

15. 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.

16. This permit shall apply to the location shown on the application only. It is not transferable. If it can be shown that the well does not tap basal ground water then this condition may be waived after consultation with and acceptance by Commission staff. However, in no instance can the well be drilled deeper than one-half (1/2) of the theoretical thickness without Commission approval.

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

Date of Approval: May 8, 2009
Expiration Date: May 8, 2011

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 #: ___________ Date: ___________

Printed Name: Will Steele Firm or Title: Wailani Drilling Services, Inc.

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

Attachment
FROM: CHARLEY

DATE: May 18, 2009

TO: ANAKALEA, P.  KUNIMURA, I.  NAKAMA, L.  NAKANO, D.  OHYE, M.  SAKODA, E.  SUBIA, S.  SWANSON, S.  UYENO, D.  YODA, K.  YOSHINAGA, M.

FOR: Approval  Information  Signature

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

WELL NUMBER 5424-15

Sugar Cove AOAO Irrigation

ATTACHMENTS FOR WELL CONSTRUCTION PERMIT:
1 COVER LETTER
2 PERMIT (2x)
3 SDWB
4 WWB
5 CWB
6 HEER
7 LD
8 HP
9 OClL
10 SMA
11 WELL CHECK PRINTOUT

TO BE SENT TO APPLICANT

FOR OFFICE USE ONLY

4 depth (cf) condition?
### Well Check Program
4/1/04 - Revised for update to Well Standards (February 2004)

#### Data Input

<table>
<thead>
<tr>
<th>Data Input</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Number</td>
<td>5424-15</td>
</tr>
<tr>
<td>Well Name</td>
<td>Sugar Cove AOAO Irrigation</td>
</tr>
<tr>
<td>Ground Elevation</td>
<td>10</td>
</tr>
<tr>
<td>Cement Grout</td>
<td>40</td>
</tr>
<tr>
<td>Grouting Method</td>
<td>other</td>
</tr>
<tr>
<td>Hole Diameter</td>
<td>16</td>
</tr>
<tr>
<td>Total Depth</td>
<td>50</td>
</tr>
<tr>
<td>Water Level</td>
<td>2 Depth to water</td>
</tr>
<tr>
<td>Public Water Supply Well?</td>
<td>no</td>
</tr>
<tr>
<td>Solid Casing Material</td>
<td>pvc plastic</td>
</tr>
<tr>
<td>Solid Casing Specification</td>
<td>Schedule 80</td>
</tr>
<tr>
<td>Solid Casing Length</td>
<td>40</td>
</tr>
<tr>
<td>Solid Casing Diameter</td>
<td>8</td>
</tr>
<tr>
<td>Solid Casing Wall Thickness</td>
<td>0.500</td>
</tr>
<tr>
<td>Open Casing Length</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Results

<table>
<thead>
<tr>
<th>Well Depth</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical Thickness of Aquifer</td>
<td>82</td>
</tr>
<tr>
<td>1/4 Aquifer Thickness</td>
<td>20.5</td>
</tr>
<tr>
<td>Depth of Well below Sea Level</td>
<td>40 too deep</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Well Casing</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Wall Thickness Material</td>
<td>pvc plastic</td>
</tr>
<tr>
<td>Minimum Thickness per standards</td>
<td>no requirement</td>
</tr>
<tr>
<td>Wall Thickness Provided</td>
<td>0.5 no standard</td>
</tr>
<tr>
<td>Minimum Length of Solid Casing</td>
<td>7.2</td>
</tr>
<tr>
<td>90% of ground to top of aquifer</td>
<td></td>
</tr>
<tr>
<td>Length of solid casing Provided</td>
<td>40 okay</td>
</tr>
<tr>
<td>Casings Material</td>
<td>Schedule 80</td>
</tr>
<tr>
<td>(for pvc only - check for 200' limit)</td>
<td>in compliance</td>
</tr>
<tr>
<td>Annular Space</td>
<td></td>
</tr>
<tr>
<td>Depth of Grouting</td>
<td>5.6</td>
</tr>
<tr>
<td>Depth of Grouting provided</td>
<td>40 okay</td>
</tr>
<tr>
<td>Minimum Annular Space required</td>
<td>2</td>
</tr>
<tr>
<td>Thickness of Annular Space</td>
<td>4 okay</td>
</tr>
</tbody>
</table>

---

**Yes**

**No**

- **Solid Casing Material**: pvc plastic
- **Well Name**: Sugar Cove AOAO Irrigation
- **Grouting Method**: other
- **Solid Casing Diameter**: 8
- **Solid Casing Wall Thickness**: 0.500
- **Open Casing Length**: 0
- **Well Depth**: 82
- **1/4 Aquifer Thickness**: 20.5
- **Depth of Well below Sea Level**: 40 "too deep" (Section 2.2)
- **Minimum Wall Thickness Material**: pvc plastic
- **Minimum Thickness per standards**: no requirement
- **Wall Thickness Provided**: 0.5 "no standard" (Section 2.4(b))
- **Minimum Length of Solid Casing**: 7.2
- **90% of ground to top of aquifer**: 90%
- **Length of solid casing Provided**: 40 "okay" (Section 2.4(c))
- **Casings Material**: Schedule 80
- **(for pvc only - check for 200' limit)**: in compliance (Section 2.4(d))
- **Annular Space**: 5.6
- **Depth of Grouting**: 5.6
- **Depth of Grouting provided**: 40 "okay" (Section 2.6(c))
- **Minimum Annular Space required**: 2
- **Thickness of Annular Space**: 4 "okay" (Section 2.6(d))
<table>
<thead>
<tr>
<th>Material</th>
<th>Schedule 40</th>
<th>Schedule 80</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC plastic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABS plastic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermoset plastic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material</th>
<th></th>
<th>Steel public</th>
<th>Steel non public</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC plastic</td>
<td>Schedule 40</td>
<td>0.28</td>
<td>0.25</td>
</tr>
<tr>
<td>Schedule 80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material</th>
<th>Steel</th>
<th>Stainless steel</th>
<th>PVC plastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule 40</td>
<td>ANSI/AWWA C200</td>
<td>ASTM A409</td>
<td>Schedule 40</td>
</tr>
<tr>
<td>Schedule 80</td>
<td>API Spec. 5L</td>
<td>Other</td>
<td>Schedule 80</td>
</tr>
<tr>
<td>Other</td>
<td>ASTM A53</td>
<td></td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td>ASTM A139</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ASTM A606</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TO: Honorable Chiyoue L. Fukino, M.D., Director
Department of Health
Attention: Tomas See, Chief, Wastewater Branch
Stuart Yamada, Chief, Safe Drinking Water Branch
Alec Wong, Chief, Clean Water Branch
Dr. Keith Kawauka, Office of Hazard Evaluation and Emergency Response

FROM: Laura H. Thielen, Chairperson
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
Sugar Cove AQQO Irrigation (Well No. 5424-15)

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 8, 2009. 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 Charley Lee of the Commission staff at 587-0218.

Cl: ss
Attachment(s)

RESPONSE:

[ ]
This well qualifies as a source which will serve as a source of potable water in a public water system (defined as serving 25 or more people at least 60 days per year or less than 25 people or more people at least 60 days per year or 15 service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 38, Rules Relating to Potable Water Systems, §11-24-29.

[ ]
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 is used for drinking, the private owner shall 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.

[ ]
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 preventers by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by clearly labeling all non-potable systems with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested.

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

[ ]
For the applicant's information, a source of possible wastewater contamination [J 14] is not located near the proposed well site (information attached).

[ ]
An NPDES permit is required.

[ ]
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.

[ ]
No comments/objections.

Contact Person: Donna L. Feto
Phone: 808-4305
Date: 5/11/09

Signed: Donna L. Feto
Date: 5/11/09
The Department of Health, Clean Water Branch (CWB) has the following comments:

1. 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 (HAR), Title 11, Chapter 55, Appendix I, effective October 22, 2007. Treated process wastewater effluent covered by this general permit includes well drilling slurries, lubricating fluids wastewater, and well purge wastewater. This general permit does not cover well pump testing. The applicable Notice of Intent (NOI) Forms and filing fee shall be submitted at least 30 calendar days before the start of discharge to the:

Department of Health
Clean Water Branch
919 Ala Moana Boulevard, Room 301
Honolulu, Hawaii 96814-4920

The CWB-NOI Forms are available online at http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html. Inquiries may be directed to the CWB at (808) 586-4309 or by fax (808) 586-4352.

2. 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 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 the 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.
3. For Construction Activities Disturbing One (1) or More Acres of Total Land Area

By HAR, Title 11, Chapter 55, Appendix C, effective October 22, 2007, an NPDES permit or Notice of General Permit Coverage is required before the start of the construction activities that result in the disturbance of one (1) or more acres of total land area, including clearing, grading, and excavation. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NOI (see Comment No. 1, above) shall be submitted 30 calendar days before the start of construction activities.
<table>
<thead>
<tr>
<th>TO:</th>
<th>INIT.</th>
<th>TO:</th>
<th>INIT.</th>
<th>FOR:</th>
<th>PLEASE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHENG, C.</td>
<td></td>
<td>KUNIMURA, I.</td>
<td></td>
<td>Approval</td>
<td>See Me</td>
</tr>
<tr>
<td>CHING, F.</td>
<td></td>
<td>MILLS, D.</td>
<td></td>
<td>Signature</td>
<td>Review &amp; Comment</td>
</tr>
<tr>
<td>CHONG, R.</td>
<td></td>
<td>OHYE, L.</td>
<td></td>
<td>Information</td>
<td>Take Action</td>
</tr>
<tr>
<td>DANBARA, S.</td>
<td></td>
<td>OHYE, M.</td>
<td></td>
<td></td>
<td>Type Draft</td>
</tr>
<tr>
<td>ENGLAND, D.</td>
<td></td>
<td>OSHIRO, K.</td>
<td></td>
<td></td>
<td>Type Final</td>
</tr>
<tr>
<td>FUJII, N.</td>
<td></td>
<td>SAKODA, E.</td>
<td></td>
<td></td>
<td>File</td>
</tr>
<tr>
<td>HARDY, R.</td>
<td></td>
<td>SWANSON, S.</td>
<td></td>
<td></td>
<td>Xerox ___ copies</td>
</tr>
<tr>
<td>HOAGBIN, S.</td>
<td></td>
<td>TORRES, R.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICE, C.</td>
<td></td>
<td>UYENO, D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMATA, R.</td>
<td></td>
<td>YODA, K.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KAWAHARA, K.</td>
<td></td>
<td>YOSHINAGA, M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KIMURA, J.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HC&S is pumping ~ 30 mgd (12-MAV)
April 30, 2009

Ms. Laura H. Thielen, Chairperson
State of Hawaii Department of Land and Natural Resources
Commission on Water Resource Management
P.O. Box 621
Honolulu, Hawaii 96809

Re: Well Construction/Pump Installation Permit Application
Sugar Cove AOAO Irrigation Well (Well No. 5424-15)
TMK: (2)3-8-002:003

Dear Ms. Thielen:

Thank you for the opportunity to comment on this well construction/pump installation permit application.

We understand the proposed well would withdraw 40,000 gpd from the Paia aquifer. Issued pump installation permits and reported withdrawals per the Commission on Water Resources Management’s well database far exceed the Paia aquifer’s sustainable yield. The proposed well would not have an immediate effect on existing DWS wells, but the overall aquifer could be impacted from the already approved number of wells.

The application is for 40,000 gpd irrigation use. Domestic and irrigation water use for a 4 acre property would be about 20,000 gpd based on system per acre standards. The property is served by two meters. Daily water use averages about 27,000 gallons. The proposed irrigation well should offset irrigation demand from current potable metered use. A smaller pump size is appropriate to reflect reasonable irrigation demand. A backflow preventor must be installed for the irrigation system.

We recommend that Best Management Practices (BMPs) designed to prevent contamination through and to the proposed well be adopted. Sample BMPs are as enumerated below.

1. Inspect exposed parts of the well periodically for problems such as: cracked or corroded well casing, broken or missing well cap, damage to protective casing, settling and cracking

"By Water All Things Find Life"

The Department of Water Supply is an Equal Opportunity provider and employer. To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington DC 20250-9410. Or call (202) 720-5964 (voice and TDD)
of surface seals
2. Slope the area around the well so that surface runoff drains away from the well
3. Provide a well cap or sanitary seal to prevent unauthorized use of or entry into the well
4. Provide for sediment removal or well cleaning as necessary
5. Have the well tested once a year for fecal coliform or other constituents that may be of concern
6. Keep accurate records of any well maintenance, such as disinfection or sediment removal, that might require use of chemicals in the well.
7. Avoid mixing or using pesticides, fertilizers, herbicides, degreasers, fuels, or other pollutants near the well
8. Do not locate any type of potentially polluting activity up slope from the well

Should you have any questions, please contact our Water Resources and Planning Division at (808)244-8550.

Sincerely,

Jeffrey K. Eng, Director

emb
c: engineering division
Please see attached

---------------------------
County of Maui.
IT Security measures will reject attachments
larger than 12 MB, and will block or quarantine
high-risk file types in attachments.

COMMENTSCwRM.pdf
April 7, 2009

Mr. Jeffrey Hunt, Director
Planning Department
County of Maui
250 South High Street
Wailuku, HI 96793

Dear Mr. Hunt:

Special Management Area Use Permit Requirements for
Well Construction/Pump Installation Permit Application
Sugar Cove AOAO Irrigation (Well No. 5424-15)

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 SMA permitting requirements specific to your division. Please respond by returning this cover memo form by May 8, 2009. 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 Charley Ice of the Commission staff at 587-0218.

Sincerely,

[Signature]

Laura H. ThieLEN
Chairperson

RESPONSE:

[ ] This well project [ ] requires [ ] does not require a SMA. If a SMA is required it [ ] has [ ] has not been approved and [ ] is [ ] is not currently active.

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

[ ] No objections

[ ] Other comments: See attached SMA permit.

Condition: SMA permit has been met. Conditions of shoreline set back approval have been met.

Contact Person: Jim Buika
Phone: 270-6271

Signed: ___________________________ Date: ___________________________
Ms. Janie Kramer
Commercial Properties of Maui Management, Inc.
1962-B Wells Street
Wailuku, Hawaii 96793

Dear Ms. Kramer:

SUBJECT: SPECIAL MANAGEMENT AND SHORELINE SETBACK AREA ASSESSMENTS FOR THE SUGAR COVE CONDOMINIUMS AT 320 PA‘ANI PLACE, TMK: (2) 3-8-002:003, PAIA, MAUI, HAWAII (SMX 2009/0035) (SM2 2009/0012) (SSD 2009/0001)

This letter is in response to your February 2, 2009 correspondence regarding your Special Management Area (SMA) and Shoreline Setback assessments submitted to the Department of Planning (Department). The proposed project is to drill a 6-inch diameter irrigation well to a depth of approximately fifty (50) feet below grade. Additional improvements include piping well water to a 28" x 28" x 63" pressurized water tank mounted on four foot by four foot concrete pad. The purpose of the well is to use brackish water, rather than county potable water supplies for irrigation.

In response to your SMA Assessment Application and in accordance with the Special Management Area Rules for the Maui Planning Commission (Commission), Section 12-202-12, a determination has been made relative to the above-referenced project that:

1. The project is less than $125,000.00 (valuation $85,000.00);

2. The project is not anticipated to adversely affect historic properties; however should historic artifacts, remnants or human burials be encountered, all work shall cease and the Department of Land and Natural Resources - State Historic Preservation Division (DLNR-SHPD) contacted immediately;

3. The project will have no adverse environmental or ecological effects, provided best management practices as itemized in the application, are fully implemented; and

4. The project is consistent with the objectives, policies, and the SMA guidelines set forth in the Hawaii Revised Statutes (HRS), Chapter 205A, and is consistent with the County General Plan and Zoning.
Thank you for your cooperation. Please contact Staff Planner Thorne Abbott by email at thorne.abbott@mauicounty.gov or by telephone at 270-7520 should you have any questions.

Sincerely,

CLAYTON I. YOSHIDA, AICP
Planning Program Administrator

For: JEFFREY S. HUNT, AICP
Planning Director

xc: Aaron H. Shinmoto, PE, Planning Program Administrator
    Thorne E. Abbott, Coastal Resources Planner
    DSA
    General File

K:\WP\DOCS\PLANNING\SM2\2009\0012_SugarCoveWellApproval.wpd
April 7, 2009

TO: Honorable Chiyoue L. Fukino, M.D., Director
Department of Health
Attention: Tomas See, Chief, Wastewater Branch
Stuart Yamada, Chief, Safe Drinking Water Branch
Alec Wong, Chief, Clean Water Branch
Dr. Keith Kawakoa, Office of Hazard Evaluation and Emergency Response

FROM: Laura H. Thielen, Chairperson
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
Sugar Cove AAOA Irrigation (Well No. 5424-15)

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 8, 2009. 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 Charley Ice of the Commission staff at 587-0218.

Class: Attachment(s)

RESPONSE:

[1] This well qualifies as a source which will serve as a source of public water for a public water system (as defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and shall 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, §§11-20-23.

[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 use and routinely monitor the water quality thereafter. However, if future planned uses 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 labeling all non-potable outlets 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).


[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 be applicable, and we do not need to review the new location.

[9] No comments/objections

Contact Person: Richard Palmer
Phone: 586-0457
Date: 04/13/2009

Signed: Richard Palmer
Date: 4-08-09

To: Commission on Water Resource Management
Department of Land & Natural Resources
State of Hawaii

Attn: Charley Ice

From: Lori Morikami, Planner
Planning & Design Section

Ph 586-4294 Fax 586-4300
Email: lori.morikami@doh.hawaii.gov

Subject: Well Construction/Pump Installation Permit/Water Use Permit for

Well No. 0130-12 Honokohau-fenari

Well No. 1124-15 Sugar Cove A040

Well No. ________________________

Well No. ________________________

Please find enclosed the application of the above subject project.

STATE MESSENGER DELIVERY
April 7, 2009

TO: Honorable Chiyome L. Fukino, M.D., Director
   Department of Health
   Attention: Tomas See, Chief, Wastewater Branch
              Stuart Yamada, Chief, Safe Drinking Water Branch
              Alec Wong, Chief, Clean Water Branch
              Dr. Keith Kawaoka, Office of Hazard Evaluation and Emergency Response

FROM: Laura H. Thielen, Chairperson
      Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
         Sugar Cove AOAO Irrigation (Well No. 5424-15)

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 8, 2009. 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 Charley Ice of the Commission staff at 587-0218.

CI: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 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 II, Chapter 20, Rules Relating to Potable Water Systems, §§11-20-29.

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.

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.

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

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

An NPDES permit is required.

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.

No comments/objections

Contact Person: Roland Tejano, Eng. on Maui 984-8232

Signed: Olohi Morikami on Oahu Date: 4-08-09
April 7, 2009

TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attention: Tomas See, Chief, Wastewater Branch
Stuart Yamada, Chief, Safe Drinking Water Branch
Alec Wong, Chief, Clean Water Branch
Dr. Keith Kawaoka, Office of Hazard Evaluation and Emergency Response

FROM: Laura H. Thielen, Chairperson
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
Sugar Cove AOAO Irrigation (Well No. 5424-12)

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 8, 2009. 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 Charley Ice of the Commission staff at 587-0218.

Class 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 has 25 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 17, Chapter 10, Rules Relating to Potable Water Systems, §§11-3-29

The 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 the bacteriological and chemical quality before placing such use and reasonably monitor the water quality thereafter. However, if future planning is made from this source increases to meet the public water system definition then Director of Health approval is required prior to implementation

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

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

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

An NDEES permit is required

Other relevant DOE/ODA 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: Phone: 586-4258
Signed: Date: 4/13/09
TO: Morris Atta, Administrator  
Land Division

FROM: Ken C. Kawahara, P.E., Deputy Director  
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application  
Sugar Cove AOAO Irrigation (Well No. 5424-15) TMK (2) 3-8-002:003

April 7, 2009

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 8, 2009. 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 Charley Ice of the Commission staff at 587-0218.

RESPONSE:

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

[xx] 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

[xx] Other comments: Original source of private title is Grant 3343 issued prior to statehood.

Contact Person: Gary Martin  
Phone: 587-0421

Signed: ____________________________  
Date: ____________________________
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR NEW APPLICATIONS

FROM: CHARLEY
DATE: 25-Mar-09
SUSPENSE DATE: 1-Apr-09

TO: CHING, F.  INIT. KUNIMURA, I.  INIT. 1 Approval
FUJI, N.  INIT. NAKAMURA, L.  INIT. 3 Signature
GOODING, K.  INIT. OHYAMA, M.  INIT. 4 Information
HARDY, R.  INIT. SAKODA, E.  INIT. 5
HIGA, D.  INIT. SWANSON, S.  INIT.
HOAGBIN, S.  INIT. UYENO, D.  INIT.
ICE, C.  INIT. YODA, K.  INIT.
IMATA, R.  INIT. YOSHINAGA, M.  INIT.
KAWAHARA, K.  INIT.

DATE: 25-Mar-09

PLEASE:
1 Review & Comment
2 Take Action
3 Type Draft acknowledgment letter
4 Type Final, label file folder, update People.db
5 File
6 Xerox _ copies

WELL NUMBER  S224-15  WELL NAME Sugar Cove Irrigation

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

LOGICAL CHECKS:
MLS PRINTOUT
DCCA LICENSE SCREEN PRINTOUT

FOLDER: [ ] MADE NEW FILE FOLDER, ATTACHED
[ ] FILE FOLDER ALREADY MADE, IN FILE CABINET

INCOMPLETE ACTION DATES:

DATE ACTION
02 Apr 09 Susan, I'll help you prepare pockets for circulation (excess material)
April 7, 2009

Mr. Will Steele
Wailani Drilling Services, Inc.
P.O. Box 523
Puunene, HI 96784

Dear Mr. Steele:

Well Construction/Pump Installation Permit Application for Well No. 5424-15

We acknowledge receipt, on March 30, 2009, of your completed Well Construction/Pump Installation permit application and filing fee for the Sugar Cove AOAO Irrigation (Well No. 5424-15). 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 Charley Ice of the Commission staff at 587-0218 or toll-free at 984-2400 (Maui), extension 70218.

Sincerely,

[Signature]
KEN C. KAWAHARA, P.E.
Deputy Director

CI:ss
Attachment

c: Sugar Cove AOAO
April 7, 2009

TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attention: Tomas See, Chief, Wastewater Branch
Stuart Yamada, Chief, Safe Drinking Water Branch
Alec Wong, Chief, Clean Water Branch
Dr. Keith Kawaoka, Office of Hazard Evaluation and Emergency Response

FROM: Laura H. Thielen, Chairperson
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
Sugar Cove AOAO Irrigation (Well No. 5424-15)

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 8, 2009. 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 Charley Ice of the Commission staff at 587-0218.

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 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.

[ ] 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.

[ ] 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.

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

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

[ ] An NPDES permit is required.

[ ] 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.

[ ] No comments/objections

Contact Person: ______________________ Phone: ______________________
Signed: ______________________ Date: ______________________
April 7, 2009

TO: Morris Atta, Administrator
   Land Division

FROM: Ken C. Kawahara, P.E., Deputy Director
       Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
         Sugar Cove AOAO Irrigation (Well No. 5424-15) TMK (2) 3-8-002:003

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 8, 2009. 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 Charley Ice of the Commission staff at 587-0218.

CSS
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: ______________
April 7, 2009

TO: Dr. Puaalaokalani Aiu, Administrator
    Historic Preservation

FROM: Ken C. Kawahara, P.E., Deputy Director
      Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
        Sugar Cove AOAO Irrigation (Well No. 5424-15) TMK: (2) 3-8-002:003

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 8, 2009. 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 Charley Ice of the Commission staff at 587-0218. 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: ____________
Mr. Jeffrey Hunt, Director  
Planning Department  
County of Maui  
250 South High Street  
Wailuku, HI 96793

Dear Mr. Hunt:

Special Management Area Use Permit Requirements for  
Well Construction/Pump Installation Permit Application  
Sugar Cove AOAO Irrigation (Well No. 5424-15)

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 SMA permitting requirements specific to your division. Please respond by returning this cover memo form by May 8, 2009. 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 Charley Ice of the Commission staff at 587-0218.

Sincerely,

[Signature]

LAURA H. THIELEN  
Chairperson

RESPONSE:

[ ] This well project [ ] requires [ ] does not require a SMA. If a SMA is required it [ ] has [ ] has not been approved and [ ] is [ ] is not currently active.

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

[ ] No objections

[ ] Other comments:

Contact Person: ____________________________ Phone: ________________

Signed: ____________________________ Date: ________________
April 7, 2009

Mr. Jeffrey K. Eng, Director
Department of Water Supply
County of Maui
200 South High Street
Wailuku, HI 96793

Dear Mr. Eng:

Well Construction/Pump Installation Permit Review
Well Construction/Pump Installation Permit Application
Sugar Cove AOAO Irrigation (Well No. 5424-15)

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application. If you have any comments on this application, please submit them by May 8, 2009. If we do not receive comments we will assume you have no comments.

If you have any questions about this permit application, please contact Charley Ice of the Commission staff at 587-0251.

Sincerely,

[Signature]

LAURA H. THIELEN
Chairperson

CI:ss
Attachment
Charley,

We are currently proposing a 6-inch 100 gpm submersible pump and motor. The Daily withdrawal rate would be 40,000 gpd.

Thank you for correcting the driller/installer's license number.

We are proposing a maximum drill depth of 50 feet based on information received from the well driller of other wells in the area. This is a worst case depth. The probability of having to drill to that depth is low and is dependent upon the thickness of the blue-rock cap at the well location. We anticipate having to drill between 15'-25' below ground surface but want to be able to fully penetrate the blue-rock layer in order to get to the freshwater underneath. This could be up to 50' in depth. Would you like us to submit a variance request? Please let me know.

Thank you for reviewing this application.

Jake

Jacob Freeman
Ronald M. Fukumoto Engineering, Inc.
1721 Wili Pa Loop, Suite 203
Wailuku, Hawaii 96793
Phone: 808-242-8611
Fax: 808-244-7510
E-mail: Jake@rfemaui.com

Questions:
What is the proposed pump size and daily withdrawal rate (Application items #11 & 12)?
Please explain why the proposed depth is 50 ft if you're drilling from 10 ft. el, looking for fresh water standing at +2 ft., msl.
FYI: the driller's License is #29485, not 29458 (this will not affect the review process).
Thanks
Charley Ice
Hydrologist
Hawaii Water Commission
1151 Punchbowl 227 Kalanikoku
P. O. Box 821, Honolulu 96809
(808) 587-0218
I'm not sure if you have his contact info. Jake Freeman can be contacted at (808) 242-8611. jake@rfemaui.com.

Leah
03/25/2009 10:44 AM

That application is Jake Freeman's' deal. I'm not sure why he didn't fill everything out that he sent to you.

Leah

From: Charley.F.Ice@hawaii.gov [mailto:Charley.F.Ice@hawaii.gov]
Sent: Wednesday, March 25, 2009 9:33 AM
To: leah.wailanidrilling@gmail.com
Subject: Sugar Cove AOAO well

We just received this application. Somehow the License # was entered "29458", which we can correct for our original. There's no pump info on the application, and the proposed section does not give application particulars: what's the pump size and proposed withdrawal? The photos (well done!) show a stand-up "pipe", but it may be a light fixture for the walkway, while it appears your plot plan puts a new well in the lawn -- is that correct?

A final note: thanks for good information being sent, and correct number of copies, but we're finding in some cases we need to assemble the review packet from stacks of parts, or in this case to reassemble the essential info for circulation: 1) application, 2) topo map, 3) TMK map. The other materials are very useful, but not circulated. For us to reassemble and cull excess weight from our mailing packets (limited mailing budget) takes time and effort not covered by the filing fee. In the future, we'd prefer to have the 10 review packets assembled with those three items only.

Charley Ice
Hydrologist
Hawaii Water Commission
1151 Punchbowl 227 Kalaninoku
P.O.Box 621, Honolulu 96809
(808) 587-0218

No virus found in this incoming message.
Checked by AVG - www.avg.com
Version: 8.0.238 / Virus Database: 270.11.27/2021 - Release Date: 03/25/09 07:16:00
Assessed values reflect tax year 2009 for Oahu, all other islands are tax year 2008.

Search criteria: TMK Taxkey 2-3-8-2-3

<table>
<thead>
<tr>
<th>Taxkey</th>
<th>Subdiv/Condo</th>
<th>Tnr</th>
<th>Address</th>
<th>Owner/Leesee</th>
<th>Bds</th>
<th>Bths</th>
<th>Land area</th>
<th>Liv area</th>
<th>Last Sale Ins</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3-8-2-3</td>
<td>SUGAR COVE</td>
<td>F 320</td>
<td>PAANI PL, Apt C304</td>
<td>SUGAR COVE</td>
<td>0</td>
<td>0</td>
<td>4.04 ac</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2-3-8-2-3-1</td>
<td>SUGAR COVE</td>
<td>F 320</td>
<td>PAANI PL, Apt 1A</td>
<td>GUILD, DONALD &amp; BARBARA TRS/ETAL</td>
<td>3</td>
<td>3</td>
<td>1/2</td>
<td>2,030</td>
<td>3/29/1985 DEI</td>
</tr>
<tr>
<td>2-3-8-2-3-2</td>
<td>SUGAR COVE</td>
<td>F 320</td>
<td>PAANI PL, Apt 1B</td>
<td>SALMI, SEMI H &amp; ANDREA L</td>
<td>2</td>
<td>2</td>
<td>1/2</td>
<td>1,890</td>
<td>2/15/2007 DEI</td>
</tr>
<tr>
<td>2-3-8-2-3-3</td>
<td>SUGAR COVE</td>
<td>F 320</td>
<td>PAANI PL, Apt 1C</td>
<td>SCHULENBURG, LELAND TRS/ETAL</td>
<td>3</td>
<td>3</td>
<td>1/2</td>
<td>2,030</td>
<td>9/7/1984 DEI</td>
</tr>
<tr>
<td>2-3-8-2-3-4</td>
<td>SUGAR COVE</td>
<td>F 320</td>
<td>PAANI PL, Apt 2A</td>
<td>DGG PAANI PLACE TR/ETAL</td>
<td>3</td>
<td>3</td>
<td>1/2</td>
<td>2,030</td>
<td>7/20/1988 DEI</td>
</tr>
<tr>
<td>2-3-8-2-3-5</td>
<td>SUGAR COVE</td>
<td>F 320</td>
<td>PAANI PL, Apt 2B</td>
<td>AWAD, KEITH/ETAL</td>
<td>2</td>
<td>2</td>
<td>1/2</td>
<td>1,890</td>
<td>9/14/2000 DEI</td>
</tr>
<tr>
<td>2-3-8-2-3-6</td>
<td>SUGAR COVE</td>
<td>F 320</td>
<td>PAANI PL, Apt 2C</td>
<td>RICHARDSON, THOMAS TR/ETAL</td>
<td>3</td>
<td>3</td>
<td>1/2</td>
<td>2,030</td>
<td>12/11/1992 DEI</td>
</tr>
<tr>
<td>2-3-8-2-3-7</td>
<td>SUGAR COVE</td>
<td>F 320</td>
<td>PAANI PL, Apt 3A</td>
<td>LAKER MANAGEMENT INC</td>
<td>3</td>
<td>3</td>
<td>1/2</td>
<td>2,030</td>
<td>2/24/1994 DEI</td>
</tr>
<tr>
<td>2-3-8-2-3-8</td>
<td>SUGAR COVE</td>
<td>F 320</td>
<td>PAANI PL, Apt 3B</td>
<td>WEBER, GARRY A/ETAL</td>
<td>2</td>
<td>2</td>
<td>1/2</td>
<td>1,890</td>
<td>1/19/1989 DEI</td>
</tr>
<tr>
<td>2-3-8-2-3-9</td>
<td>SUGAR COVE</td>
<td>F 320</td>
<td>PAANI PL, Apt 3C</td>
<td>MAUI ALOHA ENTERPRISES LTD</td>
<td>3</td>
<td>3</td>
<td>1/2</td>
<td>2,030</td>
<td>4/26/1995 DEI</td>
</tr>
<tr>
<td>2-3-8-2-3-10</td>
<td>SUGAR COVE</td>
<td>F 320</td>
<td>PAANI PL, Apt 4A</td>
<td>SUGAR COVE HOLDINGS LTD</td>
<td>3</td>
<td>3</td>
<td>1/2</td>
<td>2,030</td>
<td>6/14/2000 DEI</td>
</tr>
<tr>
<td>2-3-8-2-3-11</td>
<td>SUGAR COVE</td>
<td>F 320</td>
<td>PAANI PL, Apt 4B</td>
<td>GOLDMAN, KENNETH TR/ETAL</td>
<td>2</td>
<td>2</td>
<td>1/2</td>
<td>1,890</td>
<td>1/10/2001 DEI</td>
</tr>
<tr>
<td>2-3-8-2-3-12</td>
<td>SUGAR COVE</td>
<td>F 320</td>
<td>PAANI PL, Apt</td>
<td>ELLISON, WILLIAM OTR/ETAL</td>
<td>3</td>
<td>3</td>
<td>1/2</td>
<td>2,030</td>
<td>10/30/2006 DEI</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property ID</th>
<th>Address</th>
<th>Owner 1</th>
<th>Owner 2</th>
<th>Price</th>
<th>Date</th>
<th>DEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3-8-2-3-13</td>
<td>320 PAANI PL, Apt 5A</td>
<td>P BATTLAY HOLDINGS PTY LTD /ETAL</td>
<td>3</td>
<td>3</td>
<td>2,030</td>
<td>11/3/1986</td>
</tr>
<tr>
<td>2-3-8-2-3-14</td>
<td>320 PAANI PL, Apt 5B</td>
<td>SALEM, RICHARD M &amp; ELIZABETH E</td>
<td>2</td>
<td>2</td>
<td>1,890</td>
<td>9/10/2003</td>
</tr>
<tr>
<td>2-3-8-2-3-15</td>
<td>320 PAANI PL, Apt 5C</td>
<td>NEALON, PATRICIA E</td>
<td>3</td>
<td>3</td>
<td>2,030</td>
<td>8/8/2002</td>
</tr>
<tr>
<td>2-3-8-2-3-16</td>
<td>320 PAANI PL, Apt 6A</td>
<td>VAUGHAN, DAVID A/ETAL</td>
<td>3</td>
<td>3</td>
<td>2,030</td>
<td>10/29/2004</td>
</tr>
<tr>
<td>2-3-8-2-3-17</td>
<td>320 PAANI PL, Apt 6B</td>
<td>SIX BEES LLC</td>
<td>2</td>
<td>2</td>
<td>1,890</td>
<td>7/7/2006</td>
</tr>
<tr>
<td>2-3-8-2-3-18</td>
<td>320 PAANI PL, Apt 6C</td>
<td>TELLURIDE CROSSCUT LLC</td>
<td>3</td>
<td>3</td>
<td>2,030</td>
<td>10/12/2007</td>
</tr>
</tbody>
</table>

This information has been supplied by third parties and has not been independently verified by Hawaii Information Service and is, therefore, not guaranteed.

Copyright ©4/2/2009 by Hawaii Information Service
<table>
<thead>
<tr>
<th>F YR</th>
<th>APP</th>
<th>D</th>
<th>SRC</th>
<th>OBJ</th>
<th>COST</th>
<th>CTR</th>
<th>PROJECT</th>
<th>PH ACT</th>
<th>AMOUNT</th>
<th>NAME/DESCRIPTION (WANG INPUT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>09</td>
<td>326</td>
<td>C</td>
<td>1026</td>
<td>0752</td>
<td></td>
<td></td>
<td></td>
<td>(1)</td>
<td>$25.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(10)</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL** $25.00

**REMARKS:**

LINE (1) Sugar Cove Irrigation Well
LINE (2)
LINE (3)
LINE (4)
LINE (5)
LINE (6)
LINE (7)
LINE (8)
LINE (9)
LINE (10)
TRANSMITTAL

Date: March 18, 2009

To: Charley Ice
Commission on Water Resources Management
Department of Land & Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

From: Jacob Freeman

Subject: SUGAR COVE IRRIGATION WELL
TMK: (2) 3-8-002:003

We are sending you eleven (11) copies of the Permanent Pump Installation Permit for the subject project.

Thank you.

Copy: Mary Jane Kramer – Commercial Properties of Maui Management, Inc. (2 copies)
Leah Robertson – Wailani Drilling Services, Incorporated
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 621, Honolulu, Hawaii 96809. Application must be accompanied by 3 copies and a non-refundable filing fee of $25.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 587-0225. For further information and updates to this application form, visit http://www.hawaii.gov/locwrm.

WELL LOCATION INFORMATION

1. STATE WELL NO (if already assigned) 2. WELL NAME Sugar Cove Irrigation Well 3. ISLAND Maui 4. TRK

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

- Plot of 7.5 minute series USGS topographic map (scale 1:24,000) with well location noted and include the name of the grid map
- Property tax map, showing well locations referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with three section profiles showing existing and final grades

5. WELL OPERATIONS NAME/COMPANY Sugar Cove AOAO

6. LANDOWNER’S NAME/COMPANY Sugar Cove AOAO

320 Pa'ani Place, Paia, Hawaii 96779

Landowner’s Phone (808) 577-2161

Landowner’s Fax (808) 577-4310

Landowner’s Email sugarcoveaoaohawaii@hawaii.rr.com

7. PROPOSED WELL CONSTRUCTION

<table>
<thead>
<tr>
<th>Construction Type</th>
<th>Drilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Construct New Well</td>
<td>Yes</td>
</tr>
<tr>
<td>2. Modify Existing Well</td>
<td>No</td>
</tr>
<tr>
<td>3. Abandon/Change Well</td>
<td>No</td>
</tr>
</tbody>
</table>

8. Construction Type

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

10. PROPOSED PUMP INSTALLATION

<table>
<thead>
<tr>
<th>Proposed Pump</th>
<th>Gallons per minute</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Install New Pump</td>
<td>100 gpm</td>
</tr>
<tr>
<td>2. Replace Pump</td>
<td>100 gpm</td>
</tr>
</tbody>
</table>

11. Proposed Pumping Rate, gpm

12. Proposed Amount of Withdrawal, gpd

13. Method of flow measurement

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

Ronald M. Fukumoto PLS# 5451

PROPOSED USE

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

16. Domestic

17. Industrial (describe)

18. Irrigation (describe map and number of acres)

19. Military (describe)

20. Other (describe)

OTHER LEGAL REQUIREMENTS

1. Conservation District Use Permit (CPUP)

21. Well is in Conservation District

22. Special Management Area Permit (SMAP)

3. Other (explain)

4. Other legal requirements

5. Other legal requirements

6. Other legal requirements

7. Other legal requirements

8. Other legal requirements

9. Other legal requirements

10. Other legal requirements

Please refer to attached SMA approval letter.

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. I further understand that the signature is required before permitting work, the signature is required within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event the application is not completed correctly, any permit may be suspended until the form is brought in to compliance, and any work done while the permit is suspended may result in fines of up to $500.00.

Licensee business name: Bill Steele C57 License No.

Signature Print Date

Bill Steele 3/16/09

Licensee business name: Bill Steele C57C-576B License No.

Signature Print Date

Bill Steele 3/16/09

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

Mala'ili Drilling Services, Inc.

Licensee business name: Bill Steele C57C-576B License No.

Signature Print Date

Bill Steele 3/16/09
**PROPOSED WELL SECTION**

(Please attach schematic if different from diagram provided below)

**Hole Diameter:** 1.6 in.

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

**Ground Elevation:** 9.5 ft., msl*

**Solid Casing:** (-95% x (Ground Elev -Water Level Elev))

- **Total length:** 40 ft
- **Nominal Diameter:** 8 in
- **Wall Thickness:** 0.5 in
- **Bottom Elevation:** -30.5 ft., msl*

**Open Casing:**
- **Perforated:** ☐
- **Screen:** ☐

- **Total length:** N/A ft
- **Nominal Diameter:** N/A in
- **Wall Thickness:** N/A in
- **Bottom Elevation:** N/A ft., msl*

**Note:** Neither bentonite nor mud should be used in saturated zone during drilling.

**Open Hole:**
- **Length:** 1.0 ft
- **Diameter:** 6 in
- **Bottom Elevation:** -40.5 ft., msl*

---

**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 A606) ☐ Type E ☐ Type S ☐ Grade B ☐ Other
- **Stainless Steel (check one):** ☐ ASTM A409 (production wells) ☐ ASTM A312 (monitor wells)
- **ABS Plastic conforming to ASTM F480 and ASTM D1527:** (check one): ☐ Schedule 40 ☐ Schedule 80
- **PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241):** (check one): ☐ Schedule 40 ☐ Schedule 80 ☐ Schedule 120
- **Thermoset Plastic:** (check one): ☐ Filament Wound Resin Pipe conforming to ASTM D2996
  ☐ Centrifugally Cast Resin Pipe conforming to ASTM D2997
  ☐ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  ☐ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  ☐ PTFE Fluorocarbon Tubing conforming to ASTM D3296
  ☐ FEP Fluorocarbon Tubing conforming to ASTM D3296

**Open Casing Material:**

- **Carbon Steel:** compliant with (check one or more): ☐ ANSI/AWWA C200 ☐ API Spec. 5L ☐ ASTM A53 ☐ ASTM A139
  And compliant with (check one or more): ☐ ASTM A242 (or A606) ☐ Type E ☐ Type S ☐ Grade B ☐ Other
- **Stainless Steel (check one):** ☐ ASTM A409 (production wells) ☐ ASTM A312 (monitor wells)
- **ABS Plastic conforming to ASTM F480 and ASTM D1527:** (check one): ☐ Schedule 40 ☐ Schedule 80
- **PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241):** (check one): ☐ Schedule 40 ☐ Schedule 80 ☐ Schedule 120
- **Thermoset Plastic:** (check one): ☐ Filament Wound Resin Pipe conforming to ASTM D2996
  ☐ Centrifugally Cast Resin Pipe conforming to ASTM D2997
  ☐ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  ☐ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  ☐ PTFE Fluorocarbon Tubing conforming to ASTM D3296
  ☐ FEP Fluorocarbon Tubing conforming to ASTM D3296

---

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

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Level - 4(1/4 Water Level Elev))

Example: Estimated + 2 ft Water Level Elev = Bottom Elevation of Well Limit = (2 - (1/4)(4)) = -18.5 ft.

---

**Note:** Neither bentonite nor mud should be used in saturated zone during drilling.

---

** учитывают виды материалов (номера стандартов) и соответствующие им требования.**
Figure 1

MAP OF MAUI

PREPARED FOR: SUGAR COVE AOAO
PREPARED BY: RONALD M. FUKUMOTO ENGINEERING, INC.
SMA ASSESSMENT FOR SUGAR COVE IRRIGATION WELL
Figure 2

VICINITY MAP

SCALE IN FEET

NORTH

PREPARED FOR: SUGAR COVE AOAO
PREPARED BY: RONALD M. FUKUMOTO ENGINEERING, INC.
SMA ASSESSMENT FOR SUGAR COVE IRRIGATION WELL
Ms. Janie Kramer  
Commercial Properties of Maui Management, Inc.  
1962-B Wells Street  
Wailuku, Hawaii 96793

Dear Ms. Kramer:

SUBJECT: SPECIAL MANAGEMENT AND SHORELINE SETBACK AREA ASSESSMENTS FOR THE SUGAR COVE CONDOMINIUMS AT 320 PA'ANI PLACE, TMK: (2) 3-8-002:003, PAIA, MAUI, HAWAII (SMX 2009/0035) (SM2 2009/0012) (SSD 2009/0001)

This letter is in response to your February 2, 2009 correspondence regarding your Special Management Area (SMA) and Shoreline Setback assessments submitted to the Department of Planning (Department). The proposed project is to drill a 6-inch diameter irrigation well to a depth of approximately fifty (50) feet below grade. Additional improvements include piping well water to a 28" x 28" x 63" pressurized water tank mounted on four foot by four foot concrete pad. The purpose of the well is to use brackish water, rather than county potable water supplies for irrigation.

In response to your SMA Assessment Application and in accordance with the Special Management Area Rules for the Maui Planning Commission (Commission), Section 12-202-12, a determination has been made relative to the above-referenced project that:

1. The project is less than $125,000.00 (valuation $85,000.00);
2. The project is not anticipated to adversely affect historic properties; however should historic artifacts, remnants or human burials be encountered, all work shall cease and the Department of Land and Natural Resources - State Historic Preservation Division (DLNR-SHPD) contacted immediately;
3. The project will have no adverse environmental or ecological effects, provided best management practices as itemized in the application, are fully implemented; and
4. The project is consistent with the objectives, policies, and the SMA guidelines set forth in the Hawaii Revised Statutes (HRS), Chapter 205A, and is consistent with the County General Plan and Zoning.
In consideration of the above determinations, you are hereby granted a Special Management Area Minor Permit subject to the following conditions:

1. That best management practices will be fully implemented during all phases of the project.

2. That no construction, waste or contaminant materials shall enter the near shore waters or impair water quality.

3. That should historic artifacts, remnants or human burials be encountered, all work shall immediately cease and the DLNR-SHPD contacted immediately.

4. That a well-drilling permit be obtained, if required.

5. That full compliance with all other applicable governmental requirements shall be rendered.

6. That the project shall be initiated by March 31, 2010 and completed within one year after its initiation.

In accordance with the Shoreline Rules for the Commission, Sections 12-203-3, 12-203-6, 12-203-11, and 12-203-12, a determination has been made relative to the above-referenced project that:

A. Portions of the proposed work are clearly within the shoreline setback area under the County’s jurisdiction;

B. The project is within the A4 flood zone, but is above base flood elevation of 17 feet according to Figure 3 of the SMA application;

C. The shoreline is fixed by a man-made structure for which engineering drawings exist and government approvals have been received. As such, the state-certified shoreline survey may be waived; and

D. The proposed repair work is outside of the maximum shoreline setback of 150 feet from the shoreline. The project site is approximately 310 feet from the shoreline as illustrated on Figure 3 of the SMA application.

In consideration of the above, you are hereby granted a Shoreline Setback Determination that the proposed work is outside of the shoreline setback area. Furthermore, the proposed action does not trigger compliance with HRS Chapter 343 because it is outside the shoreline setback area.
Thank you for your cooperation. Please contact Staff Planner Thorne Abbott by email at thorne.abbott@mauicounty.gov or by telephone at 270-7520 should you have any questions.

Sincerely,

CLAYTON I. YOSHIDA, AICP
Planning Program Administrator

For: JEFFREY S. HUNT, AICP
Planning Director

xc: Aaron H. Shinmoto, PE, Planning Program Administrator
    Thorne E. Abbott, Coastal Resources Planner
    DSA
    General File

K:\WP_DOCS\PLANNING\SM2\2009\0012_SugarCoveWell\Approval.wpd
Figure 4

IRRIGATION WELL DETAIL

SCALE IN FEET

PREPARED FOR: SUGAR COVE AAOA
PREPARED BY: RONALD M. FUKUMOTO ENGINEERING, INC.
SMA ASSESSMENT FOR SUGAR COVE IRRIGATION WELL

DATE: 01/15/2009
PRESSURIZED WATER TANK DETAIL
NOT TO SCALE

PREPARED FOR: SUGAR COVE AOAO
PREPARED BY: RONALD M. FUKUMOTO ENGINEERING, INC.
SMA ASSESSMENT FOR SUGAR COVE IRRIGATION WELL

Figure 5
DATE: 01/15/2009

PRO-SOURCE PLUS PRESSURIZED WATER TANK
MODEL NO. PSP-FW119-35
(28" DIA. x 62-1/4" TALL)

PRESSURIZED WATER TANK DETAIL
NOT TO SCALE

PREPARED FOR: SUGAR COVE AOAO
PREPARED BY: RONALD M. FUKUMOTO ENGINEERING, INC.
SMA ASSESSMENT FOR SUGAR COVE IRRIGATION WELL

Figure 5
DATE: 01/15/2009

PRO-SOURCE PLUS PRESSURIZED WATER TANK
MODEL NO. PSP-FW119-35
(28" DIA. x 62-1/4" TALL)