ISLAND OF HAWAII

TOTAL.

ZQ1 MOD

HYDROLOGIC UNITS

SIGNED:

FRED CAMERO, PROJ. MGR.

If enclosures are not as noted, kindly notify us at once.
TO STATE OF HAWAII - DLNR

COMMISSION ON WATER RESOURCE MGMT.

P.O. BOX 621
HONOLULU, HI 96809

WE ARE SENDING YOU  X Attached  □ Under separate cover via ____________________________ the following items:

☐ Shop drawings  ☐ Prints  ☐ Plans  ☐ Samples  ☐ Specifications
☐ Copy of letter  ☐ Change order  ☐

<table>
<thead>
<tr>
<th>COPIES</th>
<th>DATE</th>
<th>NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>PUMP INSTALLATION PERMIT</td>
</tr>
</tbody>
</table>

THESE ARE TRANSMITTED as checked below:

☐ For approval  ☐ Approved as submitted  ☐ Resubmit ______ copies for approval
☐ For your use  ☐ Approved as noted  ☐ Submit ______ copies for distribution
☐ As requested  ☐ Returned for corrections  ☐ Return ______ corrected prints
☐ For review and comment  ☐

☐ FOR BIDS DUE ____________________________  ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS ____________________________________________________________

COPY TO 1496F/C FILE

SIGNED: ____________________________

FRED CAMERO, PROJ. MGR.

If enclosures are not as noted, kindly notify us at once.
PUMP INSTALLATION PERMIT
Hokukano 2 Well, Well No. 3153-02

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 Hokukano 2 Well (Well No. 3153-02) at TMK 7-9-001:001, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

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

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

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

4. The pump installation permit shall be for installation of a 600 gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.

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

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

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

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

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

10. The work proposed in the pump installation permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than 30 days before the permit expires.

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

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

Date of Approval: August 9, 2007
Expiration Date: August 9, 2009

LAURA H. THIELEN, Interim Chairperson
Commission on Water Resource Management

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

Installer’s Signature: [signature] C-57, C-57a, or A License #: C-21896 Date: 9-17-07
Printed Name: Dwight Ho Firm or Title: Beylik Drilling

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

Attachments
**COMMISSION ON WATER RESOURCE MANAGEMENT**

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

<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>CHING, F.</td>
<td></td>
<td>CHONG, R.</td>
<td></td>
<td></td>
<td>Approval</td>
</tr>
<tr>
<td>DANBRA, S.</td>
<td></td>
<td>ENGLAND, D.</td>
<td></td>
<td></td>
<td>Signature</td>
</tr>
<tr>
<td>FUJI, N.</td>
<td></td>
<td>HARDY, R.</td>
<td></td>
<td></td>
<td>Information</td>
</tr>
<tr>
<td>HOAGBIN, S.</td>
<td></td>
<td>ICE, C.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMATA, R.</td>
<td></td>
<td>KIMURA, J.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kunimura, I.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NakaMA, L.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ohye, M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sakoda, E.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Swanson, S.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uyeno, D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yoda, K.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yoshinaga, M.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**WELL NUMBER** 3153-02  
**WELL NAME** Hokukano 2

- application type: BOTH
  1. WCP COVER LETTER
  2. WCP
  3. WELL CHECK PRINTOUT
  4. PIP COVER LETTER
  5. PIP

**COMMENTS:**

- 6. SDWB
- 7. WWB
- 8. CWB
- 9. LD
- 10. HP
- 11. LUC: in conservation district
- 12. OCCL: in conservation district
- 13. SMA

**NOTES:**
- DRILLER: Beylik
- TMK: 0
- PUMP CAPACITY: 0
- WELL OWNER: 0
- LAND OWNER: 0
- COMMENT DEADLINE: 8/9/07
Ref: 3153-02.pip

September 7, 2007

Mr. Dwight Ho
Beylik Drilling
91-259A Olai Street
Kapolei, HI 96707

Dear Mr. Ho:

Pump Installation Permit
Hokukano 2 Well (Well No. 3153-02)

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

Special Conditions

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

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

3. The permittee shall conduct aquifer pump tests in accordance with the Hawaii Well Construction and Pump Installation Standards (revised February 2004) on the latest aquifer pump test data forms, which are available by contacting staff or on the web at www.hawaii.gov/dlnr/cwrm/forms.htm.

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

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

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

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

Sincerely,

LAURA H. THIELEN
Interim Chairperson

Enclosure

c: Hokukano Ranch (with applicable comments - DOH SDWB, WWB, CWB)
USGS
Hawaii DWS
PUMP INSTALLATION PERMIT
Hokukano 2 Well, Well No. 3153-02

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 Hokukano 2 Well (Well No. 3153-02) at TMK 7-9-001:001, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

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

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

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

4. The pump installation permit shall be for installation of a 600 gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.

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

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

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

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

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

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

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

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

W. Ray

Date of Approval: August 9, 2007
Expiration Date: August 9, 2009

LAURA H. THIELEN, Interim Chairperson
Commission on Water Resource Management

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

Installer's Signature: C-57, C-57a, or A License #: C-21896 Date: __________

Printed Name: Dwight Ho Firm or Title: Beylik Drilling

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

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

FROM: Allan A. Smith, Interim Chairperson
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
Hokukano 2 Well (Well No. 3153-02)

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 August 7, 2007. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

RI: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 having 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 or more 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.

[ ] An NPDES permit is required.

[ ] Other relevant DOH rules/regulations, information, or recommendations are attached. [ ] Septic tank info

[ ] 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.

Contact Person: [ ] Dane Hirokawa in Kona Phone: 322-1963
[ ] Osei Monkami on Oahu Phone: 322-1963

Signed: Osei Monkami on Oahu Date: 07-19-07
## Find Permit

### Search Criteria:
- **Search Value:** [379001001]
- **Search By:**
  - [TMK Number]
  - [Permit ID]
  - [File Number]
  - [Application ID]

<table>
<thead>
<tr>
<th>Permit #</th>
<th>TMK</th>
<th>File #</th>
<th>Type</th>
<th>Description</th>
<th>Owner Name</th>
<th>Project Address</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>14439</td>
<td>379001001</td>
<td>3098-Upp</td>
<td>Septic Tank</td>
<td>CARDINAL INVESTMENTS</td>
<td>HOKUKANO RANCH</td>
<td>Plan Approved</td>
<td></td>
</tr>
<tr>
<td>14440</td>
<td>379001001</td>
<td>3098-Mid</td>
<td>Septic Tank</td>
<td>CARDINAL INVESTMENTS</td>
<td>HOKUKANO RANCH</td>
<td>Plan Approved</td>
<td></td>
</tr>
<tr>
<td>14441</td>
<td>379001001</td>
<td>3098-Pap</td>
<td>Septic Tank</td>
<td>CARDINAL INVESTMENTS</td>
<td>HOKUKANO RANCH</td>
<td>Plan Approved</td>
<td></td>
</tr>
<tr>
<td>14470</td>
<td>379001001</td>
<td>3098-Bun</td>
<td>Septic Tank</td>
<td>CARDINAL INVESTMENTS</td>
<td>HOKUKANO RANCH</td>
<td>Use Approved</td>
<td></td>
</tr>
<tr>
<td>30122</td>
<td>379001001</td>
<td></td>
<td>Cesspool</td>
<td>PACE</td>
<td></td>
<td>Use Approved</td>
<td></td>
</tr>
<tr>
<td>14442</td>
<td>379001001</td>
<td>3098-Brn</td>
<td>Septic Tank</td>
<td>CARDINAL INVESTMENTS</td>
<td>HOKUKANO RANCH, KEALAKEKUA</td>
<td>Plan Approved</td>
<td></td>
</tr>
<tr>
<td>14438</td>
<td>379001001</td>
<td>3098-Nor</td>
<td>Septic Tank</td>
<td>CARDINAL INVESTMENTS</td>
<td>HOKUKANO RANCH</td>
<td>Plan Approved</td>
<td></td>
</tr>
<tr>
<td>Permit Profile Page</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Submit Date:</strong> 10/6/1997</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reviewed:</strong> 10/27/1997</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Plan Approved:</strong> 10/27/1997</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inspection Date:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Final Approval:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Termination Date:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General</th>
<th>Site Info</th>
<th>IWS System</th>
<th>Documents</th>
<th>BLDG Permits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Permit ID:</strong> 14439</td>
<td><strong>IWS Type:</strong> Septic Tank</td>
<td><strong>Assigned To:</strong> Ong, Johnny</td>
<td><strong>Source:</strong> WWB</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>File Number:</strong> 3098 UPP</td>
<td><strong>Island:</strong> Hawaii</td>
<td><strong>Plan Approved:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Application:</strong> 0</td>
<td><strong>Status:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engineer:</strong> Hernando Chaves</td>
</tr>
<tr>
<td><strong>TMK:</strong> 379001001</td>
</tr>
<tr>
<td><strong>Street Address:</strong> HOKUKANO RANCH</td>
</tr>
<tr>
<td><strong>Street Address 2:</strong></td>
</tr>
<tr>
<td><strong>City:</strong> KEALAKEKUA</td>
</tr>
<tr>
<td><strong>State:</strong> Hawaii</td>
</tr>
<tr>
<td><strong>Zip Code:</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Payment Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Payment Type:</strong></td>
</tr>
<tr>
<td><strong>Check Number:</strong></td>
</tr>
<tr>
<td><strong>Check Date:</strong></td>
</tr>
<tr>
<td><strong>Payor:</strong></td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Review Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Submit Date:</strong> 10/6/1997</td>
</tr>
<tr>
<td><strong>Reviewed:</strong> 10/27/1997</td>
</tr>
<tr>
<td><strong>Plan Approved:</strong> 10/27/1997</td>
</tr>
<tr>
<td><strong>Inspection Date:</strong></td>
</tr>
<tr>
<td><strong>Final Approval:</strong></td>
</tr>
<tr>
<td><strong>Termination Date:</strong></td>
</tr>
</tbody>
</table>

http://onestop.eha.local/wwb/Permits/addEditPermit.aspx?permitID=21564122-8a3a-44fd-87af-3eca577166a3 7/18/2007
<table>
<thead>
<tr>
<th>General</th>
<th>Site Info</th>
<th>IWS System</th>
<th>Documents</th>
<th>BLDG Permits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application Information</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permit ID: 14440</td>
<td>IWS Types: Septic Tank</td>
<td>Assigned To: Ong, Johnny</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File Number: 3098 MID</td>
<td>Island: Hawaii</td>
<td>Source: WWB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application: 0</td>
<td>Status: Plan Approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Project Information | | | | | |
| Engineer: Hernando Chaves | TMK: 379001001 | | | | |
| Street Address: HOKUKANO RANCH | | | | | |
| Street Address 2: | | | | | |
| Suite/Apt.: | | | | | |
| City: KEALAKEKUA | | | | | |
| State: Hawaii | | | | | |
| Zip Code: | | | | | |

| Review Information | | | | | |
| Submit Date: 10/6/1997 | | | | | |
| Reviewed: 10/22/1997 | | | | | |
| Plan Approved: 10/27/1997 | | | | | |
| Inspection Date: | | | | | |
| Final Approval: | | | | | |
| Termination Date: | | | | | |

| Payment Information | | | | | |
| Payment Type: | Check Number: | Amount: | | | |
| Check Date: | Payor: | | | | |

Last Modified: 2/26/2007 10:52 AM
**Permit Profile**

**General**

<table>
<thead>
<tr>
<th>Application Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permit ID: 14441</td>
</tr>
<tr>
<td>IWS Type: Septic Tank</td>
</tr>
<tr>
<td>Assigned To: Ong, Johnny</td>
</tr>
<tr>
<td>Island: Hawaii</td>
</tr>
<tr>
<td>Source: WWB</td>
</tr>
<tr>
<td>Status: Plan Approved</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineer: Hernando Chaves</td>
</tr>
<tr>
<td>TMK: 379001001</td>
</tr>
<tr>
<td>Street Address: HOKUKANO RANCH</td>
</tr>
<tr>
<td>Street Address 2:</td>
</tr>
<tr>
<td>Suite/Apt.:</td>
</tr>
<tr>
<td>City: KEALAKEKUA</td>
</tr>
<tr>
<td>State: Hawaii</td>
</tr>
<tr>
<td>Zip Code:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Review Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submit Date: 10/6/1997</td>
</tr>
<tr>
<td>Reviewed: 10/27/1997</td>
</tr>
<tr>
<td>Plan Approved: 10/27/1997</td>
</tr>
<tr>
<td>Inspection Date:</td>
</tr>
<tr>
<td>Final Approval:</td>
</tr>
<tr>
<td>Termination Date:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Payment Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment Type:</td>
</tr>
<tr>
<td>Check Number:</td>
</tr>
<tr>
<td>Amount:</td>
</tr>
<tr>
<td>Check Date:</td>
</tr>
<tr>
<td>Payor:</td>
</tr>
</tbody>
</table>

**Last Modified:** 2/26/2007 10:52 AM
<table>
<thead>
<tr>
<th>General</th>
<th>Site Info</th>
<th>IWS System</th>
<th>Documents</th>
<th>BLDG Permits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permit ID: 14470</td>
<td>IWS Type: Septic Tank</td>
<td>Assigned To: Ong, Johnny</td>
<td>Source: WWB</td>
<td>Multi-IWS:</td>
<td></td>
</tr>
<tr>
<td>File Number: 3098 BUN</td>
<td>Island: Hawaii</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application: 0</td>
<td>Status: Use Approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Information</th>
<th>Review Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineer: Ron G. Neely</td>
<td>Submit Date: 11/6/1997</td>
</tr>
<tr>
<td>TMK: 379001001</td>
<td>Reviewed: 12/8/1997</td>
</tr>
<tr>
<td>Street Address: HOKUKANO RANCH</td>
<td>Plan Approved: 12/8/1997</td>
</tr>
<tr>
<td>Street Address 2:</td>
<td>Inspection Date: 7/21/1998</td>
</tr>
<tr>
<td>Suite/Apt.:</td>
<td>Final Approval: 8/24/1998</td>
</tr>
<tr>
<td>City: KEALAKEKUA</td>
<td>Termination Date:</td>
</tr>
<tr>
<td>State: Hawaii</td>
<td></td>
</tr>
<tr>
<td>Zip Code:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Payment Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment Type:</td>
<td>Check Number:</td>
</tr>
<tr>
<td>Check Date:</td>
<td>Payer:</td>
</tr>
<tr>
<td>Amount:</td>
<td></td>
</tr>
</tbody>
</table>

Last Modified: 2/26/2007 10:52 AM

http://onestop.eha.local/wwb/Permits/addEditPermit.aspx?permitID=42582f55-5952-4a67-a1dd-3eac37450c97

7/18/2007
<table>
<thead>
<tr>
<th><strong>Application Information</strong></th>
<th><strong>Review Information</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Permit ID:</strong> 30122</td>
<td><strong>Submit Date:</strong> 10/18/1995</td>
</tr>
<tr>
<td><strong>IWS Type:</strong> Cesspool</td>
<td><strong>Reviewed:</strong> 1/17/1996</td>
</tr>
<tr>
<td><strong>File Number:</strong> 0</td>
<td><strong>Plan Approved:</strong> 1/17/1996</td>
</tr>
<tr>
<td><strong>Island:</strong> Hawaii</td>
<td><strong>Inspection Date:</strong></td>
</tr>
<tr>
<td><strong>Application:</strong> 0</td>
<td><strong>Final Approval:</strong> 12/12/1996</td>
</tr>
<tr>
<td><strong>Status:</strong> Use Approved</td>
<td><strong>Termination Date:</strong></td>
</tr>
<tr>
<td><strong>Source:</strong> WWB</td>
<td></td>
</tr>
</tbody>
</table>

**Project Information**

<table>
<thead>
<tr>
<th><strong>Engineer:</strong> Hernando Chaves</th>
<th><strong>TMK:</strong> 379001001</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Street Address:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Street Address 2:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Suite/Apt.:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>City:</strong> N KONA</td>
<td></td>
</tr>
<tr>
<td><strong>State:</strong> Hawaii</td>
<td></td>
</tr>
<tr>
<td><strong>Zip Code:</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Payment Information**

<table>
<thead>
<tr>
<th><strong>Payment Type:</strong></th>
<th><strong>Check Number:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Check Date:</strong></td>
<td><strong>Payor:</strong></td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Address:** 555 20638          |
<p>| <strong>PO Box:</strong> 9001               |
| <strong>City:</strong> Hilo                 |
| <strong>State:</strong> Hawaii              |
| <strong>Zip Code:</strong>                  |</p>
<table>
<thead>
<tr>
<th>Application Information</th>
<th>Review Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permit ID: 14442</td>
<td>Submit Date: 10/9/1997</td>
</tr>
<tr>
<td>IWS Type: Septic Tank</td>
<td>Reviewed: 8/3/2000</td>
</tr>
<tr>
<td>File Number: 3098 BRN</td>
<td>Plan Approved: 8/3/2000</td>
</tr>
<tr>
<td>Island: Hawaii</td>
<td>Inspection Date:</td>
</tr>
<tr>
<td>Application: 0</td>
<td>Final Approval:</td>
</tr>
<tr>
<td>Status: Plan Approved</td>
<td>Termination Date:</td>
</tr>
<tr>
<td>Assigned To: Udasco, Felix</td>
<td>Multi-IWS:</td>
</tr>
<tr>
<td>Source: WWB</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineer: Ron G. Neely</td>
</tr>
<tr>
<td>TMK: 379001001</td>
</tr>
<tr>
<td>Street Address: HOKUKANO RANCH, KEALAKEKUA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Payment Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment Type:</td>
</tr>
<tr>
<td>Check Number:</td>
</tr>
<tr>
<td>Amount:</td>
</tr>
<tr>
<td>Check Date:</td>
</tr>
<tr>
<td>Payor:</td>
</tr>
</tbody>
</table>

Last Modified: 2/26/2007 10:52 AM

http://onestop.eha.local/wwb/Permits/addEditPermit.aspx?permitID=31fe8a7f-ba68-4fc6-9f90-be5b91251a47

7/18/2007
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 62
HONOLULU, HAWAII 96829

July 6, 2007

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

FROM: Allan A. Smith, Interim Chairperson
   Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
   Hokukano 2 Well (Well No. 3153-02)

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 August 7, 2007. If we do not receive comments or a request for
additional review time by this date, we will assume that you have no comments.

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

RESPONSE:

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

The well does not qualify as a source servicing 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 pipes with warning signs to prevent inadvertent contamination of non-potable water. Backflow prevention devices should be routinely inspected
and tested.

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

For the applicant's information, a source of possible wastewater contamination is 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: Stuart Yamada

Signed: 1

Phone: 587-0255

Date: 7/11/07
CWRM Application Source: Hokukano 2 Well  
(Well 3153-02)

Safe Drinking Water Branch Engineering Section

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

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

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

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

All public water system sources must undergo a source water assessment which will delineate a source water protection
area. This process is preliminary to the creation of a source water protection plan for that source and activities which will take place to protect the drinking water source.

Projects proposing to develop new public water systems or proposing substantial modifications to existing public water systems must receive approval by the Director of Health prior to construction of the proposed system or modification. These projects include treatment, storage and distribution systems of public water systems. The approval authority for projects owned and operated by a County Board or Department of Water or Water Supply has been delegated to them.

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

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

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

CWWM Well Application Standard Comments (SDWB)
Vers. 6/1/07
source.

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

**Underground Injection Control (UIC)**

*No comments on this application.*
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, Title 11, Chapter 55, Appendix I, effective November 7, 2002. 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 thirty (30) 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.
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 521
HONOLULU, HAWAII 96805

July 6, 2007

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

FROM: Allan A. Smith, Interim Chairperson
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
Hokukano 2 Well (Well No. 3153-02)

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 August 7, 2007. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

Attachment(s)

RESPONSE:

This well qualifies as a source which will serve as a source of possible 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, 811-30-29.

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 installing 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 possible and non-potable purposes in a single system, the user shall eliminate cross-connections and backflow connections by physically separating possible 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 is not located near the proposed well site (information assumed).

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: Joanna L. Sedo
Phone: 986-4095

Signed: Joanna L. Sedo
Date: 7-10-07
Commission on Water Resource Management
Route Slip for New Applications

From: RYAN
Date: 30-Apr-07
Suspense Date: 7-May-07

To: CHING, F.  
FUJI, N.  
GOODING, K.  
HARDY, R.  
HIGA, D.  
HOAGBIN, S.  
ICE, C.  
IMATA, R.  
KUNIMURA, I.

For: NAKAMA, L.  
NAKANO, D.  
OHYE, M.  
SAKODA, E.  
SWANSON, S.  
UYENO, D.  
YODA, K.  
YOSHINAGA, M.

Please:
1. Approval
2. Signature
3. Information
4. See Me
5. Review & Comment
6. Take Action
7. Type Draft acknowledgement
8. Type Final, label file folder, update People.db
9. File
10. Xerox __ copies

Well Number: 3153-02  
Well Name: Hokukano 2

Well Construction: [ ]  
Pump Installation: [X]  
Both: [ ]

Attachments for Application Processing - Both applicant & staff generated
1. Trans. Letter
2. Permit Process Table
3. CWRM Map
4. Appliance 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

Folders:
[ ] Made new file folder, attached
[ ] File folder already made, in file cabinet

Incomplete Action Dates:

Date: ACTION

- Update to expired last round. New driller.
- Driller needs to address

 basically just routing for both comments.  
All other comments still valid.
July 6, 2007

Mr. Dwight Ho
Beylik Drilling and Pump Service
91-259A Olai Street
Kapolei, HI 96707

Dear Mr. Ho:

Pump Installation Permit Application for Well No. 3153-02

We acknowledge receipt, on May 11, 2007, of your completed Pump Installation permit application and filing fee for the Hokukano 2 Well (Well No. 3153-02). You can expect your application to be processed within ninety (90) days from this date.

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

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

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

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director

RI:ss
Attachment
c: Hokukano Ranch, Inc.
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

July 6, 2007

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

FROM: Allan A. Smith, Interim Chairperson
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
Hokukano 2 Well (Well No. 3153-02)

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 August 7, 2007. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

RESPONSE:

[ ] 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: _________________
<table>
<thead>
<tr>
<th>GENERAL LICENSEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIC ID: CT-21896</td>
</tr>
<tr>
<td>NAME: BEYLİK DRILLING &amp; PUMP SERVICE INC</td>
</tr>
<tr>
<td>TRADE NAME:</td>
</tr>
<tr>
<td>STATUS: CURRENT, VALID &amp; IN GOOD STANDING</td>
</tr>
<tr>
<td>ENTITY: CORPORATION</td>
</tr>
<tr>
<td>BUSINESS CODE:</td>
</tr>
<tr>
<td>ORIG LIC DATE: 03/24/1999</td>
</tr>
<tr>
<td>CLASS PREFIX: AC</td>
</tr>
<tr>
<td>SPECIAL PRIVILEGE:</td>
</tr>
<tr>
<td>RESTRICTION:</td>
</tr>
<tr>
<td>EDUCATION CODE:</td>
</tr>
<tr>
<td>BUSINESS ADDR: 91-259 OLAI ST #A KAPOLEI HI 96707</td>
</tr>
<tr>
<td>MAILING ADDR: 3000 WEST MACARTHUR BLVD #660 SANTA ANA CA 92704</td>
</tr>
</tbody>
</table>

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

License information on this site reflects information in the Professional and Vocational Licensing Division as of July 2, 2007; however, applications and forms are subject to standard processing time, and the information here does not reflect pending changes which are being reviewed. The site is updated daily, Monday through Friday, except holidays.
The State of Hawaii makes no guarantees as to the accuracy of the information accessed, the timeliness of the delivery of transactions, delivery to the correct party, preservation of the privacy and security of users and makes no warranties, including warranty of merchantability and fitness for particular purpose. User is advised that if the information obtained herein is to be reasonably relied upon, user should confirm the accuracy of such information with the provider thereof.

http://pvl.ehawaii.gov/pvlsearch/app?_a=d&_f=n&lictp=CT&licno=21896&off=&nm=BE... 7/2/2007
Assessed Values reflect tax year 2007.

Search criteria: TMK Taxkey 3-7-9-1-1

<table>
<thead>
<tr>
<th>Taxkey</th>
<th>Subdiv/Condo Tnr</th>
<th>Address</th>
<th>Owner/Lessee Bds Bths</th>
<th>Land area</th>
<th>Live area</th>
<th>Last Sale</th>
<th>Instr</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-7-9-1-1</td>
<td>F HOKUKANO</td>
<td>2 1</td>
<td>424.30 ac</td>
<td>1,728</td>
<td>8/29/1996</td>
<td>QD</td>
<td>$4,521,51</td>
<td></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.
<table>
<thead>
<tr>
<th>Approved</th>
<th>Well No.</th>
<th>Well Name</th>
<th>Applicant</th>
<th>Driller</th>
<th>Pump Inst.</th>
<th>Type</th>
<th>Issued</th>
<th>Signed</th>
<th>WCR1</th>
<th>WCR2</th>
<th>Accept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved</td>
<td>Well No.</td>
<td>Well Name</td>
<td>Applicant</td>
<td>Driller</td>
<td>Pump Inst.</td>
<td>Type</td>
<td>Wells</td>
<td>WCR1</td>
<td>Accept</td>
<td>Pump Installation</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>-----------</td>
<td>-----------</td>
<td>---------</td>
<td>------------</td>
<td>------</td>
<td>--------</td>
<td>------</td>
<td>---------</td>
<td>-------------------</td>
<td></td>
</tr>
</tbody>
</table>

Monday, April 30, 2007
<table>
<thead>
<tr>
<th>Approved</th>
<th>Well No.</th>
<th>Well Name</th>
<th>Applicant</th>
<th>Driller</th>
<th>Pump Inst.</th>
<th>Type</th>
<th>Issued</th>
<th>Signed</th>
<th>WCR1</th>
<th>Accept</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/13/2004</td>
<td>3309-02</td>
<td>Mokuleia</td>
<td>State DOWALD [05]</td>
<td>AC-21896</td>
<td></td>
<td>PUMP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/26/2004</td>
<td>3857-04</td>
<td>Waiaha-DWS</td>
<td>Hawaii DWS</td>
<td>AC-21896</td>
<td></td>
<td>PUMP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/26/2005</td>
<td>5425-15</td>
<td>Koloa F</td>
<td>Kauai DWS</td>
<td>AC-21896</td>
<td></td>
<td>PUMP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/11/2006</td>
<td>0519-04</td>
<td>Kapaa Homestead</td>
<td>Kauai DWS</td>
<td>AC-21896</td>
<td></td>
<td>PUMP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Well Construction**

- **Issued**
- **Signed**
- **WCR1**
- **Accept**

**Pump Installation**

- **Issued**
- **Signed**
- **WCR2**
- **Accept**

*Monday, April 30, 2007*
<table>
<thead>
<tr>
<th>Approved</th>
<th>Well No.</th>
<th>Well Name</th>
<th>Applicant</th>
<th>Driller</th>
<th>Pump Inst.</th>
<th>Type</th>
<th>Issued</th>
<th>Signed</th>
<th>WCR1</th>
<th>Accept</th>
<th>Issued</th>
<th>Signed</th>
<th>WCR2</th>
<th>Accept</th>
</tr>
</thead>
<tbody>
<tr>
<td>F_YR</td>
<td>APP</td>
<td>D</td>
<td>SRC/ OBJ</td>
<td>COST</td>
<td>CTR</td>
<td>PROJECT</td>
<td>PH ACT</td>
<td>AMOUNT</td>
<td>NAME/DESCRIPTION (WANG INPUT)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-----</td>
<td>---</td>
<td>----------</td>
<td>------</td>
<td>-----</td>
<td>---------</td>
<td>--------</td>
<td>--------</td>
<td>--------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S 07</td>
<td>326</td>
<td>C</td>
<td>1026</td>
<td>0752</td>
<td></td>
<td></td>
<td></td>
<td>(1)</td>
<td>$25.00 island Land Management Inc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TOTAL</td>
<td>$ 25.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

REMARKS:
LINE (1) Hokukano Well 2
LINE (2)
LINE (3)
LINE (4)
LINE (5)
LINE (6)
LINE (7)
LINE (8)
LINE (9)
LINE (10)
## WELL LOCATION INFORMATION

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. STATE WELL NO. (If already assigned)</td>
<td>31-163-92</td>
</tr>
<tr>
<td>2. WELL NAME</td>
<td>HOKUKANO 2</td>
</tr>
<tr>
<td>3. ISLAND</td>
<td>HAWAII</td>
</tr>
<tr>
<td>4. TMK</td>
<td>7 9 001 001</td>
</tr>
</tbody>
</table>

The following must be attached before this application is accepted as complete:
- Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the map or quadrangle.
- Property tax map, showing well location referred to established property boundaries.
- Photograph of the proposed well site.
- A schematic diagram showing the well site, access road and proposed well infrastructure.
- For dug wells, attach a grading plan with cross section profiles showing existing and finished grades.

## PROPOSED WELL CONSTRUCTION

### PROPOSED PUMP INSTALLATION

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Construction Type</td>
<td>Drilled</td>
</tr>
<tr>
<td>9. Proposed Completion/Seal Date</td>
<td>6/30/23</td>
</tr>
<tr>
<td>10. Proposed Work</td>
<td>X Install New Pump</td>
</tr>
<tr>
<td>11. Proposed Pumping Rate, gpm</td>
<td>600 GPM</td>
</tr>
<tr>
<td>12. Proposed Amount of Withdrawal, gpd (gallons per day)</td>
<td>854,000</td>
</tr>
<tr>
<td>13. Method of flow measurement</td>
<td>Flowmeter</td>
</tr>
<tr>
<td>14. Other (explain)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Proposed Driller</td>
<td>John Doe</td>
</tr>
<tr>
<td>16. Proposed Pump Installer</td>
<td>Jane Smith</td>
</tr>
<tr>
<td>17. Installation Permits</td>
<td>Permit A, Permit B</td>
</tr>
</tbody>
</table>

## OTHER LEGAL REQUIREMENTS

If required, Items 21 and 22 must be obtained before the Commission can render a decision on a permit.

21. Conservation District Use Permit (CDUP)
- Well is in Conservation District |
- Required, CDUP # |
- Not Required, CDUP # |

22. Special Management Area Permit (SMAP)
- Required, SMAP # |
- Not Required, SMAP # |

23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
- I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
- I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

24. Drill Permit
- Well Driller (Must be filed out if application is for Well Construction) |
- Licensee business name | AC-123 |
- License No. | 456-789 |

25. Pump Installer
- Pump Installer (Must be filed out if application is for Pump Installation) |
- Licensee business name | BC-456 |
- License No. | 123-456 |

## Instructions
- Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 10 copies and a non-refundable filing fee of $25.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 808-323-2299. For further information and updates to this application form, visit http://www.hawaiigov/dlnr/cwrm.
WELL LOCATION MAP

HOKUKANO RANCH

At Hokukano Tract, South Kona, Hawaii, Hawaii

TMK: 7-9-01:1
August 25, 2004

Ref: 3153-02.pip

Mr. Tom Pace
Hokukano Ranch
P.O. Box 2240
Kealakekua, HI 96750

Dear Mr. Pace:

Pump Installation Permit
Hokukano 2 Well (Well No. 3153-02)

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

Special Conditions

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

2. Please enclose the pump specification and rating curve for the installed pump with the Well Completion Report.

3. No water shall be withdrawn (except for pump testing purposes) until you receive a confirmation that your Well Completion Report Parts 1 & 2 are complete and acceptable.

4. Fill in the portion of the Well Completion Report Part 1 that you did not complete, items 11 and 12.

5. Fill in and return your pump test data.

The permittee, well operator, and/or well owner are responsible for all conditions of the permit. This includes ensuring that the pump installation contractor submits a completed Part II of the Well Completion Report form (enclosed) within sixty (60) days after the pump installation work is completed. Be advised that you may be subject to fines of up to $5000 per day for any violations of your permit conditions starting from the permit approval date.
Please sign and have the contractor sign both permit originals and return one for our files. A copy of the Well Completion Report (Part II) and a copy of your water use report form are enclosed for your use.

**IMPORTANT** - Pump installation shall not commence until a fully signed permit is returned to the Commission. Except for the monthly water use report form, please provide copies of all the information in this packet to your pump installation contractor.

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

Sincerely,

Peter T. Young
Chairperson

Enclosure

c: Paul Frandsen, American Drilling
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 Hokukano 2 Well (Well No. 3153-02) at Kealakekua, Hawaii, TMK 7-9-001: 001, subject to the Hawaii Well Construction & Pump Installation Standards (February 2004) which include but are not limited to the following conditions:

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

2. The pump installation permit shall be for installation of a 600 gpm rated capacity or less, pump in the well.

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

4. The proposed use shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to pump water from a well shall not constitute a determination of correlative water rights. The permittee, well operator, and/or well owner are notified and by this provision understands that the quantity of water taken from the well could be reduced by the Commission in the future. This permit is not a commitment that the pump capacity permitted here or even some lesser amount is guaranteed in the future.

5. The permittee, well operator, and/or well owner shall complete and submit as-built drawings and Part II - (Permanent) Pump Installation Report of the Well Completion Report (attached) to the Chairperson within six (60) days after completion of work.

6. 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.

7. The pump installation permit application and any related staff submittal approved by the Commission are incorporated into this permit by reference. This permit is also subject to the Hawaii Well Construction & Pump Installation Standards (February 18, 2004). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

8. The permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the pump installation permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the 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 three (3) months prior to the date the permit expires. If the commencement date is not met, the Commission may revoke the permit after giving the permittee, well operator, and/or well owner notice of the proposed action and an opportunity to be heard.

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

10. 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.

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

Date of Approval: August 23, 2004
Expiration Date: August 23, 2006

PETER T. YOUNG, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the pump installer have signed, dated, and returned the permit to the Commission. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5000 per day starting from the permit date of approval.

Permittee's Signature: ___________________________ Date: __________

Printed Name: ___________________________ Firm or Title: ______________

Installer’s Signature: _________________________ C-57, C-57a, or A License #: __________ Date: __________

Printed Name: ___________________________ Firm or Title: ______________

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

Attachments

USGS
Department of Health’s Safe Drinking Water & Wastewater Branch
Hawaii Department of Water Supply
Paul Frandsen, American Drilling
August 25, 2003

Ref:3153-02.wcp

Mr. Tom Pace
Hokukano Ranch, Inc.
P.O. Box 2240
Kealakekua, HI 96750

Dear Mr. Pace:

Well Construction Permit
Hokukano 2 Well (Well No. 3153-02)

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 your permanent pump. As part of the Chairperson's approval, the following special conditions were added and are part of your permit under Permit Condition 13:

Special Conditions

1. Attached for your information is a copy 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.

2. The depth of grout shall conform with Section 2.6c of the Hawaii Well Construction and Pump Installation Standards.

This permit does not authorize work for your permanent pump installation. Approval and issuance of your pump installation permit is contingent upon completed application and information provided to and accepted by Commission staff as required in the Well Construction & Pump Installation Standards (1/23/97) and any special conditions performed under this permit. However, a permanent pump may be installed prior to the permanent pump installation permit issuance in accordance with the Commission's April 15, 1998 Declaratory Ruling No. DEC-ADM98-G5, which states that:

"Permanent pump installation for capacities between 0-70 gpm and where the proposed use is for private individual needs in non-ground-water management areas may be allowed prior to the final pump installation permit issuance. When required as a condition of the well construction permit, subsequent pumping tests shall validate the acceptability of the permanent pump. The permanent pump installed prior to final pump installation permit issuance is subject to removal if the testing shows that a smaller pump is required to reduce the potential of affecting neighboring wells and localized upconing at the applicant's well."

If you qualify and wish to take advantage of this ruling, please include a written request to install the permanent pump prior to final pump installation permit issuance when you return to us your signed well construction permit.

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

IMPORTANT - Drilling work shall not commence until a fully signed permit is returned to the Commission. Please provide all the information in this packet to your well drilling contractor. The permittee, well operator, and/or well owner are responsible for all conditions of the permit. This includes ensuring that the well construction contractor, or other party who constructs the well(s), submits a completed Part I of the Well Completion Report form (enclosed) within sixty (60) days after the well construction work is completed. Be advised that you may be subject to fines of up to $1000 per day for any violations of your permit conditions starting from the permit approval date.

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

Sincerely,

[Signature]

Peter T. Young
Chairperson

Enclosures

c: American Drilling
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 Hokukano 2 Well (Well No. 3153-02) at Kealakekua, Hawaii, TMK 7-9-001: 001, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

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

2. The well construction permit shall be for construction and testing of the well only. A minimum 1/4-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels. The permittee, well operator, and/or well owner shall coordinate with the Chairperson and conduct a pumping test in accordance with the Standards (a pump testing worksheet is attached). The permittee, well operator, and/or well owner shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump and withdraw water for use. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson.

3. If the well is to be abandoned then the permittee, well owner, operator, and/or well owner shall stop work and contact the Department's Historic Preservation immediately.

4. The permittee, well operator, and/or well owner 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.

5. The permits issued by the Chairperson are not to be used it must be accurately record water levels. The permittee, well operator, and/or well owner shall stop work and contact the Department's Historic Preservation immediately.

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


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

9. The well construction permit application is incorporated into this permit by reference and is subject to the Hawaii Well Construction & Pump Installation Standards (January 23, 1997; HWCPIS). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

10. The permit may be revoked by the Commission if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the 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 three (3) months prior to the date the permit expires. If the commencement date is not met, the Commission may revoke the permit after giving the permittee, well operator, and/or well owner notice of the proposed action and an opportunity to be heard.

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

12. The permittee, its successors, and assigns shall indemnify, defend, and hold the Commission on Water Resource Management Expiration Date: August 18, 2005
Expiry Date: August 18, 2005

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

Date of Approval: August 18, 2003

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 driller have signed, dated, and returned the permit to the Commission. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day starting from the permit date of approval.

Permittee's Signature: __________________________ Firm or Title: __________________________ Date: __________________________

Printed Name: __________________________ Driller's Signature: __________________________ C-57 License #: __________________________ Date: __________________________

Printed Name: __________________________ Firm or Title: __________________________

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

Attachment:

C: USGS Department of Health's Safe Drinking Water, Wastewater, and Clean Water Branches Hawaii Department of Water Supply American Drilling
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 Hokukano 2 Well (Well No. 3153-02) at Kealakekua, Hawaii, TMK 7-9-001, subject to the Hawaii Well Construction & Pump Installation Standards (February 2004) which include but are not limited to the following conditions:

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

2. The pump installation permit shall be for installation of a 600 gpm rated capacity or less, pump in the well.

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

4. The proposed use shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to pump water from a well shall not constitute a determination of correlative water rights. The permittee, well operator, and/or well owner are notified and by this provision understands that the quantity of water taken from the well could be reduced by the Commission in the future. This permit is not a commitment that the pump capacity permitted here or even some lesser amount is guaranteed in the future.

5. The permittee, well operator, and/or well owner shall complete and submit as-built drawings and Part II - (Permanent) Pump Installation Report of the Well Completion Report (attached) to the Chairperson within sixty (60) days after completion of work.

6. 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.

7. The pump installation permit application and any related staff submittal approved by the Commission are incorporated into this permit by reference. This permit is also subject to the Hawaii Well Construction & Pump Installation Standards (February 18, 2004). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

8. The permit may be revoked if work is not started within six (6) months from the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the pump installation permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the 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 three (3) months prior to the date the permit expires. If the commencement date is not met, the Commission may revoke the permit. If the work is not completed on or before the dates specified, the Commission may revoke the permit. If the well is not to be used, it must be properly capped. If the well is to be abandoned then the permittee, well operator, and/or well owner must apply for a well abandonment permit in accordance with §13-168-12(f) prior to any well sealing or plugging work.

9. 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.

10. The permittee's signature: Date:

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

Date of Approval: August 23, 2004
Expiration Date: August 23, 2006
PETER T. YOUNG, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to 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 also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5000 per day starting from the permit date of approval.

Permittee's Signature: Date:
Printed Name:

Installer's Signature: Date:
Printed Name:

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

Attachments

USGS
Department of Health/ Safe Drinking Water & Wastewater Branch
Hawaii Department of Water Supply
Paul Frandsen, American Drilling
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

WELL COMPLETION REPORT - PART I
Well Construction

Instructions: Please print in ink or type and send completed report (with attachments, if applicable) to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. The Commission may not accept incomplete reports. This form shall be submitted within 60 days of the completion of work. For assistance, please consult the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at 808-587-0225. For updates to this form or additional information, please visit our website at http://www.hawaii.gov/dlnr/cwrm/

1. State Well No.: 3153-02  Well Name: Hokukano 2 WELL  Island: HAWAII
2. Address: KEALAKEKUA  Tax Map Key: & 7-9-001:001
3. Drilling Company: AMERICAN DRILLING
4. Drilling method used during construction: □ Rotary □ Percussion □ Other (describe)
5. Date Well Construction (drilled,cased,grouted) completed: 7-24-04
   Fill out attached Driller's Log
   In addition to the driller's log, if a geologic log was prepared, please submit with this form.
6. Was the subject well cored? □ Yes □ No
7. Initial water-level encountered 1600 ft. below ground Date and time of measurement: 7-4 09 2pm
8. Step-Drawdown Test completed? □ No □ Yes Attach Step-Drawdown Test form (12/17/97 SDPTD Form)
9. Constant Rate Aquifer Test completed? □ No □ Yes Attach Constant Rate Aquifer Test form (12/17/97 CRPTD Form)
   Parameters prior to pump test:
10. Water-level: 1555 1316 ft. above msl Date and time of measurement: 4:15:04 3pm
11. Chloride: __________________ ppm Date and time of sampling: __________________
12. Temperature: __________________ °F Date and time of measurement: __________________
13. Fill in the as-built section on the other side of this sheet.
14. Fill in attached surveyor's report.
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. The proposed manufacturer's rated pump capacity is ______ gpm at a head of ______ ft. 
   (Attach pump specifications and rating curve)
17. Remarks: ________________________________________________________________

Licensed Driller (print) PAUL FRANDSEN  C-57 Lic. No. 13131

Signature

Date 8/18/04

Permittee (print) TW. PAGE, HOKUKANO RANCH, INC.

Signature

Date 08/18/04
13. AS-BUILT WELL SECTION

Elevation at top of casing: \(2878.27\) ft., msil

Minimum of 2' Radius & 4" Thick Concrete Pad

Ground Elevation: \(2875.12\) ft., msil

Solid Casing: (≥ 90% x (Ground Elev. - Water Level Elev.))
- Length: \(1575\) ft.
- Nominal Diameter: \(13\) in.
- Wall Thickness: \(0.500\) in.
- Bottom Elevation: \(1575\) ft., msil

Open Casing: 
- Length: \(100\) ft.
- Nominal Diameter: \(13\) in.
- Wall Thickness: \(0.500\) in.
- Bottom Elevation: \(1675\) ft., msil

Open Hole:
- Length: none
- Diameter: none
- Bottom Elevation: none

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

Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to ensure that your as-built is in compliance with applicable standards.
Station name: well-2  B-3153-02  HOKUKANO 2

NAD 27 datum values:
Latitude: 19 31 50.24313
Longitude: 155 53 20.47136
NAD 83 datum values:
Latitude: 19 31 39.36000
Longitude: 155 53 10.44000
NAD 27 - NAD 83 shift values:
10.88313
10.03136(secs.)

PLOT PLAN
(Provide Latitude and Longitude of well referenced to NAD27 to nearest second)
North American Datum Conversion

NAD 83 to NAD 27
NADCON Program Version 2.10

Transformation #: 1  Region: Hawaii
Station name: well-2  8'31'53.02  HOKUKANO 2

<table>
<thead>
<tr>
<th>NAD 27 datum values:</th>
<th>19 31 50.24313</th>
<th>155 53 20.47136</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAD 83 datum values:</td>
<td>19 31 39.36000</td>
<td>155 53 10.44000</td>
</tr>
<tr>
<td>NAD 27 - NAD 83 shift values:</td>
<td>10.88313</td>
<td></td>
</tr>
<tr>
<td>10.03136(secs.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnitude of total shift:</td>
<td>334.652(meters)</td>
<td>292.455(meters)</td>
</tr>
<tr>
<td></td>
<td>444.434(meters)</td>
<td></td>
</tr>
</tbody>
</table>

9/20/04
### NAD 83 to NAD 27 Conversion

#### Statistics for Region

<table>
<thead>
<tr>
<th></th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NAD 27 - NAD 83 shifts</strong></td>
<td><strong>MIN</strong></td>
<td><strong>MAX</strong></td>
</tr>
<tr>
<td>Range of shift (meters)</td>
<td>334.652</td>
<td>334.652</td>
</tr>
<tr>
<td>Range of shift (seconds)</td>
<td>10.883</td>
<td>10.883</td>
</tr>
</tbody>
</table>

- **Mean shift (meters)**: 334.652, **Variance of mean shift**: .000, **Std. Dev. of mean shift**: .000
- **Mean shift (seconds)**: 10.883, **Variance of mean shift**: .000, **Std. Dev. of mean shift**: .000

The total number of conversions: 1

#### Region of Conversions

<table>
<thead>
<tr>
<th>NAD 27 Longitude:</th>
<th>155 53 20.471</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latitude:</td>
<td>19 31 50.243</td>
</tr>
<tr>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>*</td>
<td><strong>NAD 27</strong></td>
</tr>
<tr>
<td>*</td>
<td>data points</td>
</tr>
</tbody>
</table>

| Latitude:         | 19 31 50.243  |
| Longitude:        | 155 53 20.471 |
MEMO and ROUTE SLIP

WCR 1 Check for Well No. 3153-02 (survey to regulation memo)

1. **Pump Tests Check**
   Glenn Bauer (initial)

   - **Step-Drawdown Test:**
     - followed WCPI Stds
     - analysis attached
     - proposed pump cap o.k.
     - Yes No

   - **Aquifer Pump Test:**
     - followed WCPI Stds
     - T & S analysis attached

   **Well Interference:**
   - estimated Steady-State
drawdown at 1-mile radius is __________ ft.
   - analysis attached

   **Stream Surface Water Impacted:**
   - Yes No
   - If yes, identify most probable stream

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

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

   **Latitude**
   - NAD27: 41 31 50
   - NAD83: 19 31 37

   **Longitude**
   - 165 53 21
   - 155 53 10

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

   ATTACHMENTS FOR PUMP INSTALLATION PERMIT:
   - COVER LETTER
   - PERMIT (2x)
   - DOH COMMENTS
   - LAND DIV. COMMENTS
   - WCR 2 FORM
   - WUR FORM
   - USGS MAP
   - PARCEL CHECK
   - DATABASE PRINTOUT
   - GLENN WORKSHEET
   - WRITTEN BILL CHECK PRINT

   not necessary – only WCP.

   To be sent to applicant

4. Roy (initial) check
5. Subia (initial) finalize w/electronic signature
6. Charley/Lenore/Ryan File
9. PROPOSED WELL SECTION

Current Group: 500 ft.

Rock Packing: 500' to bottom

Hole Diameter: 24" in.

Total Depth T.D. ________________ ft.

Solid Casing:
Material: STEEL
Length: 7'10" (100') of bottom
Diameter: 16" in.
Well depth: 9'71/16

Casing: [ ] Prepacked [ ] Screen
Material: STEEL
Length: 100'
Diameter: 16" in.
Well depth: 9'71/16
Openings 73 7/8 to W.L.F.

Open Hole: 100'
Length: ________________ ft.
Diameter: 24" in.

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

Benchmark Elevation __ above msl)

Concrete Pad

Benchmark reference control point

Surveyor's stamp and signature

Draw a map showing location of well w/ respect to metes & bounds

LATITUDE

19° 31.656 N
155° 53.174 W
**DRILLER'S LOG**

**WELL NUMBER:**

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, etc.</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>___________</td>
<td>___________________________</td>
<td>_____</td>
</tr>
<tr>
<td>___________</td>
<td>___________________________</td>
<td>_____</td>
</tr>
<tr>
<td>___________</td>
<td>___________________________</td>
<td>_____</td>
</tr>
<tr>
<td>___________</td>
<td>___________________________</td>
<td>_____</td>
</tr>
<tr>
<td>___________</td>
<td>___________________________</td>
<td>_____</td>
</tr>
<tr>
<td>___________</td>
<td>___________________________</td>
<td>_____</td>
</tr>
<tr>
<td>___________</td>
<td>___________________________</td>
<td>_____</td>
</tr>
<tr>
<td>___________</td>
<td>___________________________</td>
<td>_____</td>
</tr>
<tr>
<td>___________</td>
<td>___________________________</td>
<td>_____</td>
</tr>
<tr>
<td>___________</td>
<td>___________________________</td>
<td>_____</td>
</tr>
</tbody>
</table>

**Remarks:**

**OKAY PER**

**RUAN IMATA**

**8/9/04**
## Well Check Program
4/1/04 - Revised for update to Well Standards (February 2004)

### Data Input

<table>
<thead>
<tr>
<th><strong>Well Number</strong></th>
<th>3153-02</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Well Name</strong></td>
<td>Hokukano 2 Well</td>
</tr>
<tr>
<td><strong>Ground Elevation</strong></td>
<td>2875</td>
</tr>
<tr>
<td><strong>Cement Grout</strong></td>
<td>500</td>
</tr>
<tr>
<td><strong>Grouting Method</strong></td>
<td>other</td>
</tr>
<tr>
<td><strong>Hole Diameter</strong></td>
<td>24</td>
</tr>
<tr>
<td><strong>Total Depth</strong></td>
<td>1675</td>
</tr>
<tr>
<td><strong>Estimated Head</strong></td>
<td>1316</td>
</tr>
<tr>
<td><strong>Public Water Supply Well?</strong></td>
<td>no</td>
</tr>
<tr>
<td><strong>Solid Casing Material</strong></td>
<td>steel</td>
</tr>
<tr>
<td><strong>Solid Casing Specification</strong></td>
<td>ASTM A53</td>
</tr>
<tr>
<td><strong>Solid Casing Length</strong></td>
<td>1575</td>
</tr>
<tr>
<td><strong>Solid Casing Diameter</strong></td>
<td>13.625</td>
</tr>
<tr>
<td><strong>Solid Casing Wall Thickness</strong></td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Open Casing Length</strong></td>
<td>100</td>
</tr>
</tbody>
</table>

### Results

#### Well Depth

- Theoretical Thickness of Aquifer: 53956
- 1/Aquifer Thickness: 13489
- Depth of Well below Sea Level: 1200, okay, Section 2.2

#### Well Casing

- Minimum Wall Thickness Material: steel
- Minimum Thickness per standards: 0.3125
- Wall Thickness Provided: 0.5, okay, Section 2.4(b)
- Minimum Length of Solid Casing: 1403.1
- 90% of ground to top of aquifer: 1575, okay, Section 2.4(c)
- Length of solid casing Provided: ASTM A53, in compliance, Section 2.4(d)
- (for pvc only - check for 200' limit): okay, Section 2.4(d)

#### Annular Space

- Depth of Grouting: 500
- Depth of Grouting provided: 0, okay, Section 2.6(c)
- Minimum Annular Space required: 2
- Thickness of Annular Space: 5.1875, okay, Section 2.6(d)
CARDINAL INVESTMENT COMPANY, INC.
HOKUKANO RANCH

FACSIMILE COVER PAGE

This message is intended only for the use of addressee and may contain information that is privileged and confidential. If you are not the intended recipient, you are hereby notified that any dissemination of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone at: 808-323-2299.

TOTAL PAGES: 02 (Including cover page)

DATE: 05OCT03  TIME: 11:06 HST

ATTN: RYAN IMATA

FAX NO: 808-328-0219

FROM: TOM PACE

RE: WELL CONSTRUCTION PERMIT
    WELL NO. 3153-02

REMARKS: ALOHA

P. O. Box 2240
Kcalkakekua, HI 96750
Fax: (808)323-2371
Phone: (808)328-2299
WELL CONSTRUCTION PERMIT

Hokukano 2 Well, Well No. 3153-02

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

In accordance with the Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Well Use, Wells, and Stream Diversion Works," this document permits the construction and testing of Hokukano 2 Well (Well No. 3153-02) at Kaaawa, Hawaii, TMK 7-9-001, subject to the Hawaii Well Construction & Pump Installation Standards (12/29/97) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 321, Honolulu, HI 96822, shall be notified, in writing, at least two (2) weeks before any work is begun and shall be allowed to inspect all work in progress. The work shall be conducted and the well shall be completed in accordance with the permit conditions contained in this permit.

2. The well construction permit shall be for construction and testing of the well only. A minimum 12-inch diameter monitor tube shall be permanently installed, as required, access to the Chairperson and the Commission, shall be granted to the Chairperson and the Commission at all times and shall be allowed to inspect all work in progress. The permittee, well operator, and/or well owner shall coordinate with the Chairperson and conduct a pumping test in accordance with the standards established by the Commission. The permittee, well operator, and/or well owner shall submit to the Chairperson the test results as a basis for supporting an application to install a well. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson.

3. In basalt ground water, the depth of the well shall not exceed two-thirds (2/3) of the theoretical thickness of the basalt ground water unless otherwise authorized by the Commission.

4. The permits, well operator, and/or well owner shall incorporate mitigation measures to prevent construction debris from entering the aquatic environment. Schedule work to avoid periods of high rainfall, and to navigate any cleared areas as soon as possible.

5. In the event that subsurface contamination occurs such as debris, debris, or chemical contamination, the Authority shall take appropriate action to mitigate the contamination. The permittee, well operator, and/or well owner shall stop work and contact the Department's Historic Preservation Office immediately.

6. The proposed well construction shall not adversely affect existing or future water users in the area, including any surface water or underground water sources. This permit does not authorize the construction of new or determine the federal water quality standard.

7. The following shall be submitted to the Chairperson within sixty (60) days after completion of work:
   b. Elevation (related to mean sea level, rail) survey by a Hawaii-licensed surveyor.
   c. Aquifer initial sampling of the well.
   d. Plot plan and map showing the exact location of the well.
   e. Complete pumping test records, including time, pumping rate, drawdown, chemical content, and other data.

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

9. The well construction permit application is incorporated into this permit by reference and is subject to the Hawaii Well Construction & Pump Installation Standards (January 31, 1987; HWCP). If the HWCP is not followed and as a consequence water is wasted or contaminated, a lesson is imposed on the property owner.

10. The permit may be revoked by the Commission if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be suspended by the Commission upon a showing of good cause and good faith performance. A request to extend the permit shall be submitted to the Chairperson at least 30 days prior to the expiration date. If the Commission does not extend the permit, the Commission shall revoke the permit after giving the permittee, well operator, and/or well owner notice of the proposed action and an opportunity to be heard.

11. If the well is not to be used it must be properly capped. If the well is to be abandoned then the permittee, well operator, and/or well owner must apply for a well abandonment permit in accordance with 13-162-100 prior to any well testing or plugging work.

12. 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 permittee, assigns, officers, employees, contractors, and agents under the permit or relating to or connected with the granting of this permit.

13. Special conditions in the attached cover sheet are incorporated herein by reference.

Date of Approval: August 18, 2003
Expiration Date: August 18, 2003

PETER T. YOUNG, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand there. I accept and agree to meet those conditions as a prerequisite and undertakings that I shall not commence work until I and the driller have signed, dated, and submit the permit to the Commission. I further understand that non-compliance with any permit condition may be grounds for revocation and fines up to $10,000 per day exceeding the 1/2 approval.

Permittee's Signature: T. W. PACE, HOKUKANO
Firm or Title: PRES

Driller's Signature: T. W. PACE, HOKUKANO
C-57 License # C-57381
Date: 02/07/05

Printed Name: T. W. PACE, HOKUKANO
Firm or Title: PRES

Printed Name: T. W. PACE, HOKUKANO
Firm or Title: PRES

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

Attachment

USGS
Department of Health Safe Drinking Water, Wastewater, and Clean Water Branches
Hawaii Department of Water Supply
Aramark Dining
WELL CONSTRUCTION PERMIT

Hokukano 2 Well, Well No. 3153-02

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 13-161, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of Hokukano 2 Well (Well No. 3153-02) at Kualasaku, Hawaii, TMK 7-9-001: 001, subject to the Hawaii Well Construction & Pump Installation Standards (122387) 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 the permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. The well construction permit shall be for construction and testing of the well only. A minimum 10-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels. The permittee, well operator, and/or well owner shall coordinate with the Chairperson and conduct a pumping test in accordance with the Standards (a pumping testing worksheets attached). The permittee, well operator, and/or well owner shall submit to the Chairperson the test results as a supporting for supporting an application to install a permanent pump and withdraw water for use. No permanent pump may be installed until the pump installation permit is approved and issued by the Chairperson.

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

4. The permittee, well operator, and/or well owner shall incorporate mitigation measures to prevent construction debris from entering the aquatic environment, to schedule work to avoid periods of high rainfall, and to negotiate any cleaned areas as soon as possible.

5. In the event that satisfactory cultural remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee, well operator, and/or well owner shall stop work and contact the Department of Natural Resources Historic Preservation immediately.

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

7. The following shall be submitted to the Chairperson within sixty (60) days after completion of work:
   b. Elevation (referenced to mean sea level, msl) survey by a Hawaii-licensed surveyor.
   c. As-built sectional drawing of the well.
   d. Plot plan and map showing the exact location of the well.
   e. Complete pumping test records, including time, pumping rate, drawdown, chloride content, and other data.

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

9. The well construction permit application is incorporated into the permit by reference and is subject to the Hawaii Well Construction & Pump Installation Standards (January 23, 1997; HWCPIS). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

10. The permit may be revoked by the Commission if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the 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 three (3) months prior to the date the permit expires. If the commencement date is not met, the Commission may revoke the permit after giving the permittee, well operator, and/or well owner notice of the proposed action and an opportunity to be heard.

11. If the well is not to be used, it must be properly capped. If the well is to be abandoned then the permittee, well operator, and/or well owner must apply for a well abandonment permit in accordance with §13-168-123 prior to any well sealing or plugging work.

12. 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.

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

Date of Approval: August 16, 2003
Expiration Date: August 18, 2005

I have read the conditions and terms of this permit and understand them. I accept and agree to meet those conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the driller have signed, dated, and returned the permit to the Commission. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day starting from the permit date of approval.

Permittee's Signature: P.T. Young, Chairperson
Printed Name: Peter T. Young
Firm or Title: Commission on Water Resource Management
Date: 020C703

Driller's Signature: I.D. Pace, Hokukano
Printed Name: I.D. Pace
C-57 License #: C-571321
Date: 020C703
Firm or Title: American Drilling

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

Attachment

P

USGS
Department of Health Safe Drinking Water, Wastewater, and Clean Water Branches
Hawaii Department of Water Supply
American Drilling
RESOURCES MANAGEMENT
COMMISSION ON WATER

03 Oct 6 410:47

RECEIVED
Ernie, an example of unknown great depth but we issue anyway (not to hold up) but list a special condition to highlight the deficiency. Hope this doesn't turn out to be a problem later, substantial grant or worse no grant. It has happened w/ Steve Bowles before.
STATE MESSENGER DELIVERY

Date: Ryan Jonata

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

Attn: __________________________

From: Lori Kajiwara
Planning & Design Section
Ph 586-4290 direct line
Email: Lkajiwara@eha.health.state.hi.us
Fax 586-4300

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

Well No. 3153-02 Hokukano 2
well No. 4959-21 Anderson-Kukio

Please find enclosed the application of the above subject project.
July 2, 2003

TO: Honorable Chiyome L. Fukino, M.D., Director
   Department of Health
   Attention: Harold Yee, Wastewater Branch
              William Wong, Safe Drinking Water Branch
              Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
              Alec Wong, Clean Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application
         Hokukano 2 Well (Well No. 3153-02)

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 August 1, 2003. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

RESPONSE:

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.

No comments/objections

Contact Person: Lori N. Kajiwara
                Phone: 586-4294

Signed: Lori N. Kajiwara
        Date: 7-15-2003
Facsimile Request and Cover Sheet
Wastewater Branch
919 Ala Moana Blvd. Room 309
Honolulu, Hawaii 96814-4920
(808) 586-4294 Fax (808) 586-4300

Date: JULY 9
To: Dane Hiromasa Kona Health Center
From: Lori Kajiwara, Planning/Design Section
Email: lkajiwara@doh.hawaii.gov

Subject: Request for Information

Do you have any IWS files or records on the following well site:
(3) 7-9-001 Hokukano No. 2
Kealakekua

Please check all that apply:
[ ] sewered [ ] no record
[ ] cesspool [ ] septic tank [ ] aerobic unit

File # if applicable: # of Bedrooms 2
Record Date: 10/19/95
Submit Date: 12/12/96
Plan Approval Date: Final 12/12/96
Inspection Date: 
System "Approval for Use" Date: 
Other: 

Please fax site/plot plan if available. Thank you.
NEW CESSPOOL INFORMATION CARD

TMK: (3) 7-1-1
Lot No. -

Property Owner: TOMAS J.N. PACE, JR.

Project Address: 3.8 miles up from Mamalahoa Hwy, District: S. KONA

Engineer: H. CHAVEZ

Contractor: DETWILER CONSTRUCTION

Distance from Building: 29 FT.
Distance from Property Line: >50 FT.

Diameter (Clear) Feet: 6'-6" Depth Feet: 12 FT.

No. Feet to Water Table: >20 FT.
Ground Slope: 2%

Type of Lining: ROCK
Reinforced Concrete Cover: YES

Distance from Finished Ground to Top of Cover (Feet): 1 FT.

Date Inspected by Engineer: 11-15-95

No. of bedrooms: 2

As the engineer performing the final inspection, I submit the above information and the "As-built" as drawn on the back of this card. I also submit the following statement:

X The cesspool has been installed in strict accordance with the plans submitted and approved by DOH.

The noted changes to the approved plans have been made, and the cesspool installed in accordance therewith.

The construction of the cesspool is not in accordance with the approved plans and I do not accept the changes made to the plans designed by me.

This work has been prepared b:

Engineer's Signature and Date: H. Chavez 12.41.95

and under my supervision and construction of this project will be under my supervision.

REM SIGNS

SAN. FORM 444
TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attention: Harold Yee, Wastewater Branch
William Wong, Safe Drinking Water Branch
Dr. Keith Kawaoka, Hazard Evaluation and Emergency Response
Alec Wong, Clean Water Branch
FROM: Peter T. Young, Chairperson
Commission on Water Resource Management
SUBJECT: Well Construction/Pump Installation Permit Application
Hokukano 2 Well (Well No. 3153-02)

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 August 1, 2003. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

Rl:ss
Attachment(s)

RESPONSE:

1. This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 50 days per year or has 10 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-29.

2. This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year or 15 service connections) and if the well water is used for drinking, the permit holder should test for bacteriological and chemical presence before installing such use and continue 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 before 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 prevention by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by clearly labeling all non-potable pipes with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested.

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 [is] is not located near the proposed well site (information attached).

6. An NPDES permit is required.

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

8. No comments/objections

Contact Person: Alec Wong
Phone: 586-4309
Signed: Alec Wong
Date: 7/10/03
The Department of Health, Clean Water Branch 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, Title 11, Chapter 55, Appendix I, effective September 22, 1997. Treated process wastewater effluent covered by this general permit includes well drilling slurries, lubricating fluids wastewaters, and well purge wastewaters. This general permit does not cover well pump testing. The applicable Notice of Intent Forms and filing fee shall be submitted at least thirty (30) days before the start of discharge to the Department of Health, Clean Water Branch at 919 Ala Moana Boulevard, Room 301, Honolulu, Hawaii 96814-4920 or P.O. Box 3376, Honolulu, Hawaii 96801-3376. Inquiries may be directed to the Clean Water Branch at (808) 586-4309 or by fax at (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 the initial discharge until the discharge is essentially free of pollutants. If the discharge is entering a stream or river bed, best management practices shall be implemented to prevent the discharge from disturbing the clarity of the receiving water. If the discharge is entering a storm drain, the discharger must obtain written permission from the owner of that storm drain prior to discharge. Furthermore, best management practices shall be implemented to prevent the discharge from collecting sediments and other pollutants prior to entering the storm drain.

JS/cr
July 2, 2003

TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attention: Harold Yee, Wastewater Branch
William Wong, Safe Drinking Water Branch
Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
Alec Wong, Clean Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application
Hokukano 2 Well (Well No. 3153-02)

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 August 1, 2003. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

RESPONSE:

[ ] 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 [ ] 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.

[ ] No comments/objections

Contact Person: Bill Wong
Phone: 586-4258

Signed: Bill Wong
Date: 7-2-03
TO: Dede Mamiya, Administrator  
Land Division

FROM: Ernest Y.W. Lau, Deputy Director  
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application  
Hokukano 2 Well (Well No. 3153-02)

July 2, 2003

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 August 1, 2003. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

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

RESPONSE:

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

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

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

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

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

[ ] No objections

X[ ] Other comments: Original source of private title is Land Commission Award No. 8452:11 issued between 1845 and 1855.

Contact Person: Gary Martin  
Phone: 587-0421

Signed: Gary Martin  
Date: JUL 14 2003
July 2, 2003

TO: Honorable Chiyome L. Fukino, M.D., Director  
Department of Health  
Attention: Harold Yee, Wastewater Branch  
William Wong, Safe Drinking Water Branch  
Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response  
Alec Wong, Clean Water Branch  

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

SUBJECT: Well Construction/Pump Installation Permit Application  
Hokukano 2 Well (Well No. 3153-02)  

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 August 1, 2003. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

RESPONSE:

[1] This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 30 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 26, Rules Relating to Potable Water Systems, §11-20-26.

[1] This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 30 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 than Director of Health approval is required prior to implementation.

[1] 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 spouts with warning sign to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested.

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

[1] For the applicant's information, a source of possible wastewater contamination [1] is not located near the proposed well site (information attached).

[1] An NPDES permit is required.

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

[ ] No comments/objections

Contact Person: Dr. Keith Kawaoka  
Phone: 586-4249

Signed:  

Fax to: Commission on Water Resources Mgt. 587-0219
July 2, 2003

Mr. Tom Pace
Hokukano Ranch, Inc.
P.O. Box 2240
Kealakekua, HI 96750

Dear Mr. Pace:

Well Construction/Pump Installation Permit Application for Well No. 3153-02

We acknowledge receipt, on June 30, 2003, of your completed Well Construction/Pump Installation permit application and filing fee for the Hokukano 2 Well (Well No. 3153-02). You can expect your application to be processed within ninety (90) days from this date.

For your information, the process of constructing a well is normally regulated and permitted in two (2) steps. First, a well construction permit is issued for drilling and testing purposes only. Based upon information provided by you through a Well Completion Report Part 1 (Well Construction), a pump installation permit (upon completed application) may then be issued to authorize pump work. If a pump is installed then a Well Completion Report Part 2 (Pump Installation) is required.

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

Sincerely,

[Signature]

ERNEST Y.W. LAU
Deputy Director

RI:ss
July 2, 2003

TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attention: Harold Yee, Wastewater Branch
William Wong, Safe Drinking Water Branch
Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
Alec Wong, Clean Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application
Hokukano 2 Well (Well No. 3153-02)

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 August 1, 2003. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

RI: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 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.
[ ] No comments/objections

Contact Person: ___________________________ Phone: ______________

Signed: ___________________________ Date: ______________
TO: Dede Mamiya, Administrator
Land Division

FROM: Ernest Y.W. Lau, Deputy Director
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
Hokukano 2 Well (Well No. 3153-02)

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 August 1, 2003. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

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

RI:ss
Attachment(s)

RESPONSE:

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

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

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

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

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

[ ] No objections

[ ] Other comments:

Contact Person: ___________________________ Phone: ______________

Signed: ___________________________ Date: ______________
TO: Holly McEldowney, Acting Administrator
    Historic Preservation
FROM: Ernest Y.W. Lau, Deputy Director
      Commission on Water Resource Management
SUBJECT: Well Construction/Pump Installation Permit Application
         Hokukano 2 Well (Well No. 3153-02)

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 August 1, 2003. If we do not receive comments or a request for
additional review time by this date, we will assume you have no comments.

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

RI:ss
Attachment(s)

RESPONSE:

[ ] There may be areas in the vicinity of the well site that contain subsurface cultural remains such as artifacts,
    burials or concentrations of shells or charcoal.

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

[ ] No objections

[ ] Other comments:

Contact Person: ____________________________ Phone: ________________

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

FROM: RYAN
DATE: 7/1/03
SUSPENSE DATE: 

TO: ANAKALEA, P.
BAUER, G.
CHING, F.
DANBARA, S.
FUJII, N.
GOODING, K.
HARDY, R.
HIGA, D.
ICE, C.
IMATA, R.
KUNIMURA, I.

TO: LAU, E.
MATHIAS, T.
NAKAMA, L.
NAKANO, D.
OHYE, M.
SAKODA, E.
SUBIA, S.
SWANSON, S.
UYENO, D.
YODA, K.
YOSHINAGA, M.

INIT. INIT. FOR: 3 Approval 3 Signature 4 Information

PLEASE:
1 See Me
2 Review & Comment
3 Take Action
4 Type Draft
5 Type Final
6 File
7 Xerox ___ copies

WELL NUMBER: 3153-02
WELL NAME: Hakui

ATTACHMENTS FOR WELL CONSTRUCTION PERMIT:
1 TRANS. LETTER
2 CWRM MAP
3 APPL. FORM (3X)
4 USGS MAPS (3X)
5 TAX MAPS (3X)
6 OWNER VERIF.
7 CONTRACTOR VERIF.
8 FILING FEE
9 BACKGROUND CHECK

FOLDER:
☐ MAKE NEW FOLDER
☒ FOLDER ALREADY MADE

INCOMPLETE ACTION DATES:

DATE ACTION


LICENSE SCREEN

[Look up License Type Codes->]
Please click a link listed below to display the other screen.

***** GENERAL LICENSEE *****

LIC ID: CT-13131  Active/Inactive: ACTIVE
NAME: PAUL E FRANDSEN
TRADE NAME: AMERICAN DRILLING
STATUS: CURRENT, VALID & IN GOOD STANDING
ENTITY: INDIVIDUAL  BUSINESS CODE: SOLE OWNER
ORIG LIC DATE: 6/3/85  EXPIRE DATE: 9/30/04
CLASS PREFIX: C  SPECIAL PRIVILEGE:
RESTRICTION:  EDUCATION CODE:
BUSINESS ADDR: 91-209 HOOKAULIKE PL  EWA BEACH HI 96706
MAILING ADDR:  P O BOX 2035  AIEA HI 96701

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

<-Back  New Search->

EMPLOYEES LIST || EMPLOYERS LIST || INSURANCE/BOND || LICENSE CLASS

License information on this site reflects information in the Professional and Vocational Licensing Division as of July 1, 2003; however, applications and forms are subject to standard processing time, and the information here does not reflect pending changes which are being reviewed. The site is updated daily, Monday through Friday, except holidays. The State of Hawaii makes no guarantees as to the accuracy of the information accessed, the timeliness of the delivery of transactions, delivery to the correct party, preservation of the privacy and security of users and makes no warranties, including warranty of merchantability and fitness for a particular purpose. User is advised that if the information obtained herein is to be reasonably relied upon, user should confirm the accuracy of such information with the provider thereof.

Copyright © 2002 Professional and Vocational Licensing Division

Hawaii State homepage || DCCA || Professional and Vocational Licensing Division

http://www.ehawaiigov.org/serv/pvl?_a=d&_f=n&lictp=CT&licno=13131&off=&nm=PAU... 7/1/2003
<table>
<thead>
<tr>
<th>Taxkey</th>
<th>Subdiv/Condo</th>
<th>Tnr Property Address</th>
<th>Owner/Lessee</th>
<th>Beds</th>
<th>Baths</th>
<th>Land area</th>
<th>Living area</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-7-9-1-1</td>
<td>F</td>
<td>HOKUKANO RANCH INC</td>
<td></td>
<td>0</td>
<td>0</td>
<td>424.30 ac</td>
<td>3744</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.
**SECTION 1: WELL LOCATION INFORMATION**

<table>
<thead>
<tr>
<th>Island</th>
<th>#N/A</th>
<th>Proposed Use</th>
<th>#VALUE!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquifer System</td>
<td>#N/A</td>
<td>Proposed Withdrawal</td>
<td>0</td>
</tr>
<tr>
<td>Aquifer Sector</td>
<td>#N/A</td>
<td>System Sustainable Yield</td>
<td>#VALUE!</td>
</tr>
</tbody>
</table>

**SECTION 2: WELL SECTION DATA** *(enter data in grey cells only)*

<table>
<thead>
<tr>
<th>Elevation at top of casing</th>
<th>2878 ft., m.s.l.</th>
<th>Solid Casing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Elevation</td>
<td>2878 ft., m.s.l.</td>
<td>Material</td>
</tr>
<tr>
<td>Cement Grout</td>
<td>0 ft.</td>
<td>Designation</td>
</tr>
<tr>
<td>Rock Packing</td>
<td>0 ft.</td>
<td>Length</td>
</tr>
<tr>
<td>Hole Diameter</td>
<td>24 in.</td>
<td>Diameter</td>
</tr>
<tr>
<td>Total Depth</td>
<td>1675 ft.</td>
<td>Wall Thickness</td>
</tr>
<tr>
<td>Estimated Head</td>
<td>1575 ft., m.s.l.</td>
<td>Casing</td>
</tr>
<tr>
<td>Calculated Aquifer Thickness</td>
<td>64575 ft.</td>
<td>Material</td>
</tr>
<tr>
<td>County Water Supply (Y/N ?)</td>
<td>NO</td>
<td>Designation</td>
</tr>
</tbody>
</table>

**SECTION 3: CHECKLIST** *(values to check are shaded)*

<table>
<thead>
<tr>
<th>Well Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical Thickness of Aquifer</td>
</tr>
<tr>
<td>1/4 Aquifer Thickness</td>
</tr>
<tr>
<td>Depth of Well below Sea Level</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Well Casing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Wall Thickness</td>
</tr>
<tr>
<td>Material</td>
</tr>
<tr>
<td>County or Non-County</td>
</tr>
<tr>
<td>Minimum Thickness per standards</td>
</tr>
<tr>
<td>Wall Thickness Provided</td>
</tr>
<tr>
<td>Minimum Length of Solid Casing</td>
</tr>
<tr>
<td>90% of ground to top of aquifer</td>
</tr>
<tr>
<td>Length of solid casing Provided</td>
</tr>
<tr>
<td>Casing Material</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annular Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth of Grouting</td>
</tr>
<tr>
<td>Calculated Depth of Grouting</td>
</tr>
<tr>
<td>Depth of Grouting provided</td>
</tr>
<tr>
<td>Thickness of Annular Space</td>
</tr>
</tbody>
</table>

Okay *(refer to HWCPIS Section 2.2)* (disregard if the well is not basal, deep monitor or salt water)
April 2, 2003

Mr. Tom Pace
Hokukano Ranch
P.O. Box 2240
Kealakekua, HI 96750

Dear Mr. Pace:

Well Construction Permit Application for Well No. 3153-02

This is in regards to your Well Construction Permit for the Hokukano 2 Well (State Well No. 3153-02). Our prior understanding was that a pump was installed, and Paul Frandsen sent in an application for After-the-Fact pump installation on July 25, 2001 that we thought confirmed our understanding. To complete and accept the application, we had requested that Paul send in Well Completion Report Parts I & II to verify the construction of the well and the installation of the pump, but to date we have not received them. Later, Paul explained to us that a pump had not been installed and that the well was not yet completed.

Therefore, to continue work on this source, please submit a new application for Well Construction and Pump Installation, which we have attached for your use, along with a $25 filing fee. Please send in five copies, and the applicable maps. Please also complete Well Completion Report Part I (attached for your use), showing exactly what has been constructed. Upon receipt of these items, we will process your application within 90 days and you can then complete your well construction.

If you have any questions about your permit application, please contact Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), 934-2400 (Maui), or 1-800-468-4644 (Lanai & Molokai), extension 70255.

Sincerely,

[Signature]

ERNEST Y.W. LAU
Deputy Director

RI:ss
Attachments

c: Paul Frandsen
State of Hawaii  
COMMISSION ON WATER RESOURCE MANAGEMENT  
Department of Land and Natural Resources  
APPLICATION FOR PERMIT  
Well Construction and/or Pump Installation  

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 5 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.state.hi.us/dlnr/cwrm.

APPLICANT INFORMATION: (Fill out all three, if applicable, and place a check next to the primary contact)

1. (a) WELL OWNER: Hokukano Ranch, Inc.  
   Mailing Address: P.O. Box 2240, Kealakekua, Hawaii 96750  
   Contact Person: TOM PACE  
   Phone: (808) 337-2257  
   Fax: (808) 933-2257  
   E-mail: hokukano@konaast.com

(b) LAND OWNER: Hokukano Ranch, Inc.  
   Mailing Address:  
   Contact Person: TOM PACE  
   Phone: (808) 337-2257  
   Fax: (808) 933-2257  
   E-mail:  

(c) CONTRACTOR: American Drilling  
   Mailing Address: P.O. Box 2085, Aiea, Hawaii 96701  
   Contact Person: Paul Frandsen  
   Phone: 685-6145  
   Fax: (808) 685-6145  
   E-mail:  

   Lic #: 13131  
   (circle one: C-37, C-57a, or A)

WELL & PUMP INFORMATION: (Please fill in the diagram on the back of this form.)

2. WELL NAME: Hokukano No. 2  
   Island: Hawaii  
   Address: Kealakekua  
   Tax Map Key:  
   Zone:  
   Sec:  
   Plat:  
   Parcel:  
   Attach: (a) portion of a 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map  
   (b) a property tax map, showing well location referenced to established property boundaries.

3. PROPOSED WORK: (check all that apply)  
   - Construct New Well  
   - Modify Existing Well*  
   - Abandon/Seal*  
   - Install New Pump*  
   - Modify Pump*  
   COMPLETE WELL CONSTRUCTION

4. CONSTRUCTION:  
   Drilled  
   Dug  
   Shaft  
   Tunnel  
   Is this well part of a battery of wells?  
   Yes  
   No  (Please describe)

5. PROPOSED PUMPING RATE:  
   1600 gallons per minute

6. PROPOSED USE: (check all that apply)  
   - Municipal (including hotels, stores, etc.)  
   - Industrial  
   - Domestic (individual, noncommercial water system)  
   - Irrigation (crop)  
   - Military  
   - Other (explain):  

   Does this well serve 25 or more people at least 60 days per year or have 15 or more service connections?  
   Yes  
   No

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 2.1 MGPD  
   (b) METHOD OF FCW MEASUREMENT:  
   Flowmeter  
   Open-pipe  
   Weir  
   Orifice  
   Other (explain):

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS: If required, these permits must be obtained before the Commission can legally issue a permit.
   Conservation District Use Permit (CDUP) To find out if a CDUP is necessary, call DLNR Land Division at 587-0414
   If Required  
   If required, date approved
   Environmental Impact Statement (EIS) or Environmental Assessment (EA) To determine if an EIS or EA is necessary, call OEC at 586-4185
   If Required  
   If required, date published in OEC bulletin
   Special Management Area Permit (SMAP) To determine if a SMAP is necessary: on Oahu, call 527-5374; on Hawaii, call 961-8288; for Maui county, call 270-7235; on Kauai, call 241-6677.
   If Required  
   If required, date approved

9. REMARKS, EXPLANATIONS: This is an application to complete the well construction and install a permanent pump.

NOTE: Signing below indicates the signatories understand and swear that the information provided on this application is accurate and true to the best of their knowledge. Further, the signatories understand that approval of this application "stales the following standard conditions: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity; 5) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $1000/day.

Well Owner: 
Signature: 
Date: 20 Jun 03

Contractor: American Drilling  
Signature: 
Date: 20 Jun 03

For official use only: 
Latitude: Aquifer System No.: 
Longitude: State Well No.: 

(If more space is needed, please attach additional sheet)
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Elevation at top of casing: __ ft., msl*

Hole Diameter: __ in.

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

Ground Elevation: __ ft., msl*

Solid Casing: (± 90% x (Ground Elev.-Water Level Elev))
Total Length: __ ft.
Nominal Diameter: __ in.
Wall Thickness: __ in.
Bottom Elevation: __ ft., msl*

Open Casing: __ Perforated __ Screen
Total Length: __ ft.
Nominal Diameter: __ in.
Wall Thickness: __ in.
Bottom Elevation: __ ft., msl*

Note: Neither bentonite nor mud should be used in saturated rock/drain/drift

Open Hole:
Length: __ ft.
Diameter: __ in.
Bottom Elevation: __ ft., msl*

* 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 Elevation + 41 x Water Level Elev) / 4
Example: Estimated 2 ft. Water Level Elev. -> Bottom Elevation of Well Limit = (2 + 41 x 0.75) / 4 = -18.5 ft.

Solid Casing Material:
- Carbon Steel: compliant with (check one or more): □ ANSI/WWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
- Stainless Steel: (check one): □ ASTM A409 (production wells) □ ASTM A412 (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/WWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
- Stainless Steel: (check one): □ ASTM A409 (production wells) □ ASTM A412 (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

Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to ensure that you as-built is in compliance with applicable standards.
**State of Hawaiʻi**  
**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/ldlnr/cwrm/](http://www.state.hi.us/ldlnr/cwrm/)

1. **State Well No.:** 3153-02  
   **Well Name:** Hokukano Well 2  
   **Island:** Hawaii

2. **Address:** Kealakekua  
   **Tax Map Key:** 7-9-1: 001

3. **Drilling Company:** AMERICAN DRILLING

4. **Drilling method used during construction:**  
   - [ ] Rotary  
   - [X] Percussion  
   - [ ] Other (describe)

5. **Date Well Construction (drilled, cased, grouted) completed:** 7-5-99  
   **Fill out attached Driller's Log**

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

6. **Was the subject well cored?**  
   - [ ] Yes  
   - [X] No

7. **Initial water-level encountered:** 1600 ft. below ground  
   **Date and time of measurement:** 7-4-99  
   **Time:** 2PM

8. **Step-Drawdown Test completed?**  
   - [ ] No  
   - [X] Yes  
   **Attach Step-Drawdown Test form (12/17/97 SDPTD Form)**

9. **Constant Rate Aquifer Test completed?**  
   - [ ] No  
   - [ ] Yes  
   **Attach Constant Rate Aquifer Test form (12/17/97 CRPTD Form)**

10. **Initial water-level encountered:** 1575 ft. above msl  
    **Date and time of measurement:**

11. **Chloride:** ppm  
    **Date and time of sampling:**

12. **Temperature:** °F  
    **Date and time of measurement:**

13. **Fill in the as-built section on the other side of this sheet.**

14. **Fill in attached surveyor's report.**

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. **The proposed manufacturer's rated pump capacity is 600 gpm at a head of 0 ft.**  
    (Attach pump specifications and rating curve)

17. **Remarks:** ITEMS 8 TO 14 NOT COMPLETED. WE HAVE BEEN TRYING TO GET COMPLETION PERMIT SINCE 1999

---

**Licensed Driller (print):**  
**Paul Frandsen**  
**C-57 Lic. No.:** C-57 13131

**Signature**  
**Date:** 04-25-03

**Permittee (print):**

**Signature**  
**Date:**
## DRILLER'S LOG

**WELL NUMBER:** 3153-02

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, etc.</th>
<th>Dates</th>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, etc.</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 90</td>
<td>LAVA, BLACK/BROWN</td>
<td></td>
<td>360 to 370</td>
<td>CLAY</td>
<td></td>
</tr>
<tr>
<td>90 to 95</td>
<td>CINDERS</td>
<td></td>
<td>370 to 570</td>
<td>LAVA, BLACK/BROWN</td>
<td></td>
</tr>
<tr>
<td>95 to 100</td>
<td>LAVA, CINDERS</td>
<td></td>
<td>570 to 1175</td>
<td>LAVA, BLACK/BROWN - LOOSE LAVA ROCK</td>
<td>FIRST WATER</td>
</tr>
<tr>
<td>100 to 125</td>
<td>CINDERS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>125 to 140</td>
<td>LOOSE LAVA ROCK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>140 to 150</td>
<td>LAVA, BLACK/BROWN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150 to 160</td>
<td>LOOSE LAVA ROCK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>160 to 165</td>
<td>LAVA, BLACK/BROWN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>165 to 170</td>
<td>LOOSE LAVA ROCK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>170 to 190</td>
<td>LAVA, BLACK/BROWN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>190 to 200</td>
<td>LOOSE LAVA ROCK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200 to 215</td>
<td>LAVA, BLACK/BROWN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>215 to 245</td>
<td>LOOSE LAVA ROCK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>245 to 250</td>
<td>LAVA, BLACK/BROWN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>250 to 260</td>
<td>LOOSE LAVA ROCK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>260 to 265</td>
<td>LAVA, BLACK/BROWN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>265 to 270</td>
<td>LOOSE LAVA ROCK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>270 to 340</td>
<td>LAVA, BLACK/BROWN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:**

---

*WCR1 Form 11/12/02 Page 3 of 4*
PLOT PLAN
(Provide Latitude and Longitude of well referenced to NAD27 to nearest second)
WELL LOCATION MAP

HOKUKANO RANCH

At Hokukano Tract, South Kona, Hawaii, Hawaii

TMK: 7-9-01:1
Ms. Amy Rice  
1250 Oceanside Partners 
78-6831 Alii Drive, Suite K-15 
Kailua-Kona, HI 96740 

Dear Ms. Rice: 

Cancellation of Well Construction/Pump Installation 
Permit Application for Well No. 3156-02 

According to a phone conversation between Steve Bowles and Ryan Imata of Commission staff, we understand that you will not be drilling the Ackerman Well (Well No. 3156-02). Therefore, this is to inform you that this application is cancelled.

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

Sincerely,

[Signature]

ERNEST Y.W. LAU 
Deputy Director

RI:ss 

c: Waimea Water Services
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR PERMIT ISSUANCE

FROM: RYAN
DATE: 4/16/03
SUSPENSE DATE: ______________________

TO: ANAKALEA, P.  INIT: LAU, E.  FOR: Approval  3
      BAUER, G.  INIT: MATHIAS, T.  FOR: Signature  3
      CHING, F.  INIT: NAKAMA, L.  FOR: Information  4
      DANBARA, S.  INIT: NAKANO, D.  PLEASE:
      FUJII, N.  INIT:
      GOODING, K.  INIT:
      HARDY, R.  INIT: 1
      HIGA, D.  INIT: Review & Comment  1
      ICE, C.  INIT: Take Action  2
      IMATA, R.  INIT: Type Draft  2
      KUNIMURA, I.  INIT: Type Final  2

WELL NUMBER: ______________________
WELL NAME: ______________________

☐ WELL CONSTRUCTION

ATTACHMENTS FOR WELL CONSTRUCTION PERMIT:
1 COVER LETTER
2 PERMIT (2x)
   COMMENTS:
3 SDWB
4 WWB
5 CWB
6 HEER
7 LD
8 HP
9 PUMP TEST
10 WCR I FORM
11 WELL CHECK PRINTOUT

TO BE SENT TO APPLICANT

FOR OFFICE USE ONLY

☐ PUMP INSTALLATION

ATTACHMENTS FOR PUMP INSTALLATION PERMIT:
1 COVER LETTER
2 PERMIT (2x)
   COMMENTS:
3 SDWB
4 WWB
5 CWB
6 HEER
7 LD
8 HP
9 WCR II FORM
10 WUR FORM
11 GLENN'S WORKSHEET

TO BE SENT TO APPLICANT

FOR OFFICE USE ONLY

BULLETIN
CLEAN UP
STUFF
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR PERMIT ISSUANCE

FROM: RYAN
DATE: 3/28/03
SUSPENSE DATE:

TO: ANAKALEA, P.
BAUER, G.
CHING, F.
DANBARRA, S.
FUJII, N.
GOODING, K.
HARDY, R.
HIGA, D.
ICE, C.
IMATA, R.
KUNIMURA, I.

INIT: LAU, E.
MATHIAS, T.
NAKAMA, L.
NAKANO, D.
OHYE, M.
SAKODA, E.
SUBIA, S.
SWANSON, S.
UYENO, D.
YODA, K.
YOSHINAGA, M.

FOR: Approval
For: Signature
Information

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

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

FOR OFFICE USE ONLY

ATTACHMENTS FOR PUMP INSTALLATION PERMIT:
1 COVER LETTER
2 PERMIT (2x)
3 SDWB
4 WWB
5 CWB
6 HEER
7 LD
8 HP
9 WCR II FORM
10 WUR FORM
11 GLENN'S WORKSHEET

TO BE SENT TO APPLICANT

☐ WELL CONSTRUCTION
☐ PUMP INSTALLATION
Mr. Tom Pace  
Hokukano Ranch  
P.O. Box 2240  
Kealakekua, HI 96750  

Dear Mr. Pace:

Well Construction Permit Application for Well No. 3153-02

This is in regards to your Well Construction Permit for the Hokukano 2 Well (State Well No. 3153-02). Our prior understanding was that a pump was installed, and Paul Frandsen sent in an application for After-the-Fact pump installation on July 25, 2001 that we thought confirmed our understanding. To complete and accept the application, we had requested that Paul send in Well Completion Report Parts I & II to verify the construction of the well and the installation of the pump, but to date we have not received them. Later, Paul explained to us that a pump had not been installed and that the well was not yet completed.

Therefore, to continue work on this source, please submit a new application for Well Construction and Pump Installation, which we have attached for your use, along with a $25 filing fee. Please send in five copies, and the applicable maps. Please also complete Well Completion Report Part I (attached for your use), showing exactly what has been constructed. Upon receipt of these items, we will process your application within 90 days and you can then complete your well construction.

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

Sincerely,

[Signature]
ERNEST Y.W. LAU  
Deputy Director

RI:ss  
Attachments  
c: Paul Frandsen
**COMMISSION ON WATER RESOURCE MANAGEMENT**

**ROUTE SLIP FOR NEW APPLICATIONS**

**FROM:** RYAN

**TO:**

<table>
<thead>
<tr>
<th>Init.</th>
<th>TO:</th>
<th>Init.</th>
<th>FOR:</th>
<th>PLEASE:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BAUER, G.</td>
<td></td>
<td>3 Approval</td>
<td>See Me</td>
</tr>
<tr>
<td></td>
<td>CHING, F.</td>
<td></td>
<td>3 Signature</td>
<td>1 Review &amp; Comment</td>
</tr>
<tr>
<td></td>
<td>FUJII, N.</td>
<td></td>
<td>4 Information</td>
<td>Take Action</td>
</tr>
<tr>
<td>1</td>
<td>HARDY, R.</td>
<td>2</td>
<td>5 Type Draft acknow letter</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HIGA, D.</td>
<td></td>
<td></td>
<td>2 Type Final, label new file folder</td>
</tr>
<tr>
<td>3</td>
<td>HIRANO, E.</td>
<td>4</td>
<td></td>
<td>5 File</td>
</tr>
<tr>
<td></td>
<td>ICE, C.</td>
<td></td>
<td></td>
<td>Xerox</td>
</tr>
<tr>
<td>5</td>
<td>IMATA, R.</td>
<td>2</td>
<td></td>
<td>copies</td>
</tr>
<tr>
<td></td>
<td>JINNISAI, R.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KUNIMURA, I.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DATE:** 1-Aug-01

**SUSPENSE DATE:**

**WELL NUMBER** 3153-02

**WELL NAME** Hokukano 2

- WELL CONSTRUCTION
- PUMP INSTALLATION
- BOTH

**ATTACHMENTS FOR APPLICATION PROCESSING** - Both applicant & staff generated

1. TRANS. LETTER
2. CWRM MAP
3. APPL. FORM (3X)
4. USGS MAPS (3X)
5. TAX MAPS (3X)
6. PARCEL OWNER VERIF.
7. MLS PRINTOUT
8. CONTRACTOR VERIF.
9. DCCA LICENSE SCREEN PRINTOUT
10. ALL INFO FILLED IN
11. BACKGROUND CHECK

**FOLDER:**

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

**INCOMPLETE ACTION DATES:**

<table>
<thead>
<tr>
<th>DATE</th>
<th>ACTION</th>
</tr>
</thead>
</table>
|      | • Need to note that original permit issued 98 is cancelled.  
|      | and this is a new app.  
|      | 98 fee |
|      | • 3153-01 needs to be cancelled or same well? confusing?  
|      | major need drillers P |
|      |        |
## Well Background Check

<table>
<thead>
<tr>
<th>Approved Well No.</th>
<th>Well Name</th>
<th>Applicant</th>
<th>Driller</th>
<th>Type</th>
<th>Well Construction Issued</th>
<th>Signed</th>
<th>WCR1 Accept</th>
<th>Pump Installation Issued</th>
<th>Signed</th>
<th>WCR2 Accept</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/6/1995</td>
<td>3153-01</td>
<td>Hokukano Ranch, Inc.</td>
<td>C-20115</td>
<td>WELL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

*No WUP or is this exploratory? (i.e. can wait on FAP & WUP)*

*Status to review?*
APPLICATION FOR PERMIT

Well Construction and/or Pump Installation

APPLICANT INFORMATION: (Fill out all three, if applicable, and place a check next to the primary contact)

1. (a) WELL OWNER: HO'OKA'NO RANCH, Inc. Contact Person: TW. PACE Phone: 808-323-2279
   Mailing Address: PO BOX 2240 KEALAKEKUA, HI 96750
   Fax: 808-323-2371 E-mail: HO'OKA'NO@NETHAWAI.NET

(b) LAND OWNER: AS ABOVE
   Contact Person: AS ABOVE
   Fax: E-mail: 

(c) CONTRACTOR: AMERICAN DRILLING
   Contact Person: PAUL FRISDEND Phone: 685-6195
   Mailing Address: PO BOX 2035 AIEA, HI 96701
   Fax: SEM, E-mail: 

WELL & PUMP INFORMATION: (Please fill in the diagram on the back of this form.)

2. WELL NAME: HO'OKA'NO 202 Island: HI
   Address KEALAKEKUA HI Tax Map Key: Zone 7 Sec 9 Plt 1 Parcel 1001
   Attach the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale 1:24,000) and include the name of the quad map, and (b) a property tax map, showing well location referenced to established property boundaries.

3. PROPOSED WORK: (check all that apply)
   □ Construct New Well  □ Install New Pump*
   □ Modify Existing Well*  □ Modify Pump*
   □ Abandon/Seal*
   
   *State Well No.: 3153-02 (if unknown, please call Commission at 587-0225)

4. CONSTRUCTION:
   □ Drilled  □ Dug  □ Shaft  □ Tunnel
   Is this well part of a battery of wells? □ Yes □ No (Please describe)

5. PROPOSED PUMP INFORMATION: Rated Pump Capacity: _600_ gallons per minute
   Pump Type (Check one):
   □ Deep Well Turbine  □ Rotary  □ Propeller
   □ Submersible  □ Rotary-Displacement  □ Reciprocating
   □ Centrifugal  □ Rotary-Gear  □ Impulse

6. PROPOSED USE: □ Municipal (including hotels, stores, etc.) □ Industrial
   □ Domestic (individual, noncommercial water system)
   Does this well serve 25 or more people at least 60 days per year or have 15 or more service connections? □ Yes □ No
   □ Irrigation (crop)  □ Pasture, Grazing, Coffee  □ No. Of Acres: 8000
   □ Military  □ Other (explain): 

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 2.1MGPD gallons per day
   (b) METHOD OF FLOW MEASUREMENT: □ Flowmeter  □ Open-pipe  □ Weir  □ Orifice  □ Other(explain)

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS: □ CDUP  □ SMAP  □ EIS  □ EA  □ None  □ Other (explain)

9. REMARKS, EXPLANATIONS: THIS IS AFTER THE FACT APPLICATION
   WELL NO - 2 STATE WELL NO 3153 - 02
   (if more space is needed, please attach additional sheet)

I understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

Well Owner: HO'OKA'NO RANCH, Inc. (print legibly)
Signature: ___________________________ Date: 16FEB01

Landowner: HO'OKA'NO RANCH, Inc. (print legibly)
Signature: ___________________________ Date: 16FEB01

Contractor: AMERICAN DRILLING (print legibly)
Signature: ___________________________ Date: 16FEB01

For official use only
Latitude: ___________________________ Aquifer System No. ___________________________
Longitude: ___________________________ State Well No. ___________________________

WCPipa Form 10/25/00
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

of Well Construction and/or Pump Installation

Instructions: Please print in ink of type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 631, Honolulu, Hawaii 96802. Application must be accompanied with 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 808-587-0225. For further information and updates to this application form, visit http://www.state.hi.us/de/haldn.

APPLICANT INFORMATION:

1. (a) WELL OWNER: HOKUKANOMO
   Contact Person: EW. PACE  Phone: 808-323-2219
   Mailing Address: P.O. BOX 2240 KEOAKERUA, HI  96750
   Fax: 808-323-2271
   E-mail: HOKUKANOMO@NETHAWAI.NET

   (b) LAND OWNER: AS A ABOVE
       Contact Person: AS ABOVE  Phone: SAME
       Mailing Address: P.O. BOX 2240 KEOAKERUA, HI  96750
       Fax: SAME
       E-mail: SAME

   (c) CONTRACTOR: AMERICAN DRILLING
       Contact Person: PAUL FINLAND  Phone: 885-6145
       Mailing Address: P.O. BOX 2035  AIEA, HI  96701
       Fax: SAME
       E-mail: SAME

WELL & PUMP INFORMATION:

2. WELL NAME: HOKUKANO M0 2
   Island: HI
   Address: KEOAKERUA HI
   Tax Map Key: 7-9-1-001
   Zone: 7  Sec: 9  Plat: 1  Parcel: 001
   Attach the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale 1:24,000) and include the name of the quad map, and (b) a property tax map, showing well location referenced to established property boundaries.

3. PROPOSED WORK:
   (check all that apply)
   - Construct New Well
   - Install New Pump
   - Modify Existing Well
   - Modify Pump
   - Abandon/Seal
   - Other (explain)
   State Well No.: 3153-02  (if unknown, please call Commission at 808-587-0225)

4. CONSTRUCTION:
   - Drilled
   - Dug
   - Shaft
   - Tunnel
   - Other (explain)
   Is this well part of a battery of wells? Yes No  (Please describe)

5. PROPOSED PUMP INFORMATION:
   Rated Pump Capacity: 600 gallons per minute
   Pump Type (Check one):
   - Deep Well Turbine
   - Rotary
   - Submersible
   - Reciprocating
   - Centrifugal
   - Impulse
   - Other (explain)

6. PROPOSED USE:
   (check all that apply)
   - Domestic (individual, noncommercial water system)
   - Industrial
   - Municipal (including hotels, stores, etc.)
   - Military
   - Other (explain)
   Does this well serve 25 or more people at least 60 days per year or have 15 or more service connections? Yes No
   - Irrigation (crop)
   - LIVESTOCK, FARM, AND FISHING
   - No. of Acres: 8000
   - Other (explain)

7. (a) PROPOSED AMOUNT OF WITHDRAWAL:
   2.146 PD gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   - Flowmeter
   - Open pipe
   - Well
   - Other
   - Other (explain)

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS:
   - COLP
   - SMAP
   - EIS
   - EA
   - None
   - Other (explain)

9. REMARKS, EXPLANATIONS:
   - This is After the Inland Application
   - WELL NO-2
   - STATE WELL NO 3153-02
   (If more space is needed, please attach additional sheet)

I understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

Well Owner: HOKUKANO PAAIKA TIKI
Landowner: HOKUKANO PAAIKA TIKI
Contractor: AMERICAN DRILLING

For official use only

Latitude: Aquifer System No.
Longitude: State Well No.

WSAPPA Form 102500
**PART I. WELL CONSTRUCTION REPORT**

3. Drilling Company: **AMERICAN DRILLING**

4. Name of driller who performed work: **PAUL FRANKSEN**

5. Type of rig/construction: **CABLE TOOL**

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

7. GROUND ELEVATION (referred to mean sea level, msl): **2875.00 ft.**

   Well Bench Mark (description/location): **KONAWAIKA HIGH SCHOOL** Elevation(msl): **1620 ft.**

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

   Depths (ft.) Rock Description, Water Level, Dates, etc. | Depths (ft.) Rock Description, Water Level, Dates, etc.
   --- | ---
   (If more space is needed, continue on back.)

9. Total depth of well below ground: **1675** ft.

10. Hole size:

   - **24”** inch dia. from **0** ft. to **1675** ft. below ground
   - **---** inch dia. from **---** ft. to **---** ft. below ground
   - **---** inch dia. from **---** ft. to **---** ft. below ground

11. Casing installed:

   - **12 1/2” in. I.D. x 050** in. wall solid section to **1675** ft. below ground
   - **12 1/2” in. I.D. x 050** in. wall perforated section to **1675** ft. below ground

   Casing Material/Slot Size: **1 1/4” x 68 perforation**

12. Annulus:

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

13. Initial water level: **15-70** ft. below ground. Date and time of measurement: **---**

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

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

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

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

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

   End water level **---** ft. below R.P.

17. Pump Test Procedures data & graphs (12/17/87 SDPTD & CRPTD Forms) attached? **---** Yes **---** No

18. As-built drawings attached? **---** Yes **---** No

19. Other remarks/comments: **---**

---

**Well Drilling Contractor (print)** **AMERICAN DRILLING** C-57 Lic. No. **C-13 131**

**Signature**

---

**Surveyor (print)** **DONALD C. MCINTOSH** Lic. No. **HAWAII #4968**

**Signature**

---

**Applicant (print)** **HOKUANO RANCH, INC.**

**Signature**

---

**Mar 13 P2:31**
PART II. 
(PERMANENT) PUMP INSTALLATION REPORT

20. Pump Installation Company: __________________________

21. Name of person performing work: __________________________

22. Date Pump Installation Completed: ________

23. PUMP INSTALLATION:
   Pump Type, Make, Serial No.: __________________________
   Motor type, H.P., Voltage, rpm: __________________________
   Depth of Pump Intake Setting ______ ft. below ______ ft.
   Deep to bottom of airline ______ ft. below ______ ft.
   Pumping Head is ______ ft. Type of flow meter: __________________________

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

25. Other remarks/comments: (See below)

Pump Installation Contractor (print) AMERICAN DRILLING C-57 Lic. No. __________________________

Applicant (print) HOKAPALO RANCH, INC. __________________________

Signature __________________________ Date Feb 16 001

Applicant (print) __________________________ Date Feb 16 01

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

<table>
<thead>
<tr>
<th>Dates</th>
<th>Water Level</th>
<th>Depth (ft.)</th>
<th>Rock Description, Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun 1, 1978</td>
<td>0 to 1</td>
<td>Brown clay</td>
<td>Black Lava</td>
</tr>
<tr>
<td>1 to 12</td>
<td>Loose Blue Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>12 to 45</td>
<td>Black and Black Hard Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>45 to 65</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>65 to 75</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>75 to 90</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>90 to 100</td>
<td>Loose Black Cinders</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>100 to 115</td>
<td>Hard Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>115 to 125</td>
<td>Hard Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>125 to 145</td>
<td>Gray and Black Loose Rock</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>145 to 160</td>
<td>Loose Rock</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>160 to 165</td>
<td>Loose Rock, Black Red Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>165 to 180</td>
<td>Blue Rock Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>180 to 190</td>
<td>Blue Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>190 to 250</td>
<td>Hard Blue Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>250 to 270</td>
<td>Loose Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>270 to 300</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>300 to 330</td>
<td>Brown Clay</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>330 to 370</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>370 to 425</td>
<td>Loose Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>425 to 540</td>
<td>Brown Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>540 to 550</td>
<td>Brown Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>550 to 565</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>565 to 575</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>575 to 625</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>625 to 675</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>675 to 725</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>725 to 745</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>745 to 775</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>775 to 820</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>820 to 860</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>860 to 900</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>900 to 940</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>940 to 975</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>975 to 1000</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1000 to 1030</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1030 to 1090</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1090 to 1150</td>
<td>Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1150 to 1250</td>
<td>Hard Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1250 to 1470</td>
<td>Hard Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1470 to 1600</td>
<td>Hard Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1600 to 1750</td>
<td>Black Red Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1750 to 1870</td>
<td>Black Red Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1870 to 1900</td>
<td>Black Red Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1900 to 1925</td>
<td>Black Red Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1925 to 1950</td>
<td>Hard Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1950 to 1975</td>
<td>Hard Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1975 to 1990</td>
<td>Hard Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1990 to 1995</td>
<td>Hard Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
<tr>
<td>1995 to 2000</td>
<td>Hard Black Lava</td>
<td>Black Lava</td>
<td></td>
</tr>
</tbody>
</table>

19. & 25. Remarks: 
Callled & hooked for a pump that could pump at water level and 600 gpm. Finally made an agreement to purchase from Bill Moore, former Rasco moss.

This took 6 to 8 mo waiting for ConsCo to call back on our letter to us.
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 887-0225. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlnr/cwrm/

| 1. State Well No.: | 3152-02 | Well Name: | HOKUKANO 2 WELL | Island: | HAWAII |
|---|---|---|---|---|
| 2. Address: | KAIHE KUA | Tax Map Key: | 7-91-001 |
| 3. Drilling Company: | AMERICAN DRILLING |
| 4. Drilling method used during construction: | ☑ Rotary | ☑ Percussion | ☐ Other (describe) |
| 5. Date Well Construction (drilled, cased, grouted) completed: | DEC 12 |
| | | Attach Driller's Log (7/26/99 DL Form) |

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

6. Was the subject well cored? ☑ Yes ☐ No

7. Initial water-level encountered 1600 ft. below ground Date and time of measurement: 7-4-99 2PM

8. Step-Drawdown Test completed? ☑ No ☐ Yes Attach Step-Drawdown Test form (12/17/97 SDPTD Form)

9. Constant Rate Aquifer Test completed? ☑ No ☐ Yes Attach Constant Rate Aquifer Test form (12/17/97 CRPTD Form)

Parameters prior to pump test:

10. Water-level: ft. above msl Date and time of measurement: month/day/year time

11. Chloride: ppm Date and time of sampling: month/day/year time

12. Temperature: °F Date and time of measurement: month/day/year time

13. Fill in the as-built section on the other side of this sheet.


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) AMERICAN DRILLING C-57 Lic. No. C-13131
Signature "Paul Friends" Date __________

Surveyor (print) DONALD C. McINTOSH L.P.L.S. Lic. No. 4768-HAWAII
Signature "Donald C. McIntosh" Date 3-10-01

Permittee (print) HOKUKANO RANCH, INC.
Signature V-PRES Date 16 FEB 01

WCR1 Form 9/29/00
13. AS-BUILT SECTION

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

Bench mark elevation:

- ft., msl* (Survey to nearest 0.01 ft.)

Elevation at top of casing:

- ft., msl*

Hole Diameter: 24" in.

Annular space between hole and casing (min.3"):

- 5" in.

Ground Elevation: 2875.00 ft., msl

Minimum of 2' Radius & 4" Thick Concrete Pad

Total Depth: 1675 ft.

Cement Grout:

- ft. (min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)

Rock or Gravel Packing:

- NOT D.t.

Material:

- Crushed Basalt
- Rounded Gravel

Water Level Elevation:

- 1575 ft., msl*

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

- Length: 1575 ft.
- Nominal Diameter: 13 in.
- Wall Thickness: 1.062 in.
- Bottom Elevation: 1575 ft., msl

Open Casing:

- Perforated or Screen

- Length: 1675 ft.
- Nominal Diameter: 13 in.
- Wall Thickness: 1.062 in.
- Bottom Elevation: 1675 ft., msl

Open Hole:

- Diameter: 1675 ft.
- Bottom Elevation: 1675 ft., msl

*msl = mean sea level

Solid Casing Material:

- Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □D ASTM A53 □D ASTM A139
- Stainless Steel: (check one): □D ASTM A409 (production wells) □D ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one): □D Schedule 40 □D Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one): □D Schedule 40 □D Schedule 80 □D Schedule 120
- Thermoset Plastic: (check one)
  □D Filament Wound Resin Pipe conforming to ASTM D2996
  □D Centrifugally Cast Resin Pipe conforming to ASTM D2997
  □D Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  □D Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  □D2 PTFE Fluorocarbon Tubing conforming to ASTM D3296
  □D2 FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:

- Carbon Steel: compliant with (check one or more): □D ANSI/AWWA C200 □D API Spec. 5L □D ASTM A53 □D ASTM A139
- Stainless Steel: (check one): □D ASTM A409 (production wells) □D ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one): □D Schedule 40 □D Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one): □D Schedule 40 □D Schedule 80 □D Schedule 120
- Thermoset Plastic: (check one)
  □D Filament Wound Resin Pipe conforming to ASTM D2996
  □D Centrifugally Cast Resin Pipe conforming to ASTM D2997
  □D Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  □D Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  □D2 PTFE Fluorocarbon Tubing conforming to ASTM D3296
  □D2 FEP Fluorocarbon Tubing conforming to ASTM D3296

INSTALLATION STANDARDS

Please refer to the
HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS

to ensure that your as-built is in compliance with applicable standards.

Please provide below:

- Minimum of 2' Radius & 4" Thick Concrete Pad
- Minimum of 2' Radius & 4" Thick Concrete Pad
- Minimum of 2' Radius & 4" Thick Concrete Pad
- Minimum of 2' Radius & 4" Thick Concrete Pad
- Minimum of 2' Radius & 4" Thick Concrete Pad

*msl = mean sea level

Please refer to the
HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS

to ensure that your as-built is in compliance with applicable standards.

Please provide below:

- Minimum of 2' Radius & 4" Thick Concrete Pad
- Minimum of 2' Radius & 4" Thick Concrete Pad
- Minimum of 2' Radius & 4" Thick Concrete Pad
- Minimum of 2' Radius & 4" Thick Concrete Pad
- Minimum of 2' Radius & 4" Thick Concrete Pad
WELL LOCATION MAP

HOKUKANO RANCH

At Hokukano Tract, South Kona, Hawaii, Hawaii

TMK: 7-9-01:1
WELL LOCATION MAP

HOKUKANO RANCH

At Hokukano Tract, South Kona, Hawaii, Hawaii
TMK: 7-9-01-1
Dear Mr. Pace:

Extension Request for Well Construction Permit
Hokukano 2 Well (Well No. 3153-02)

Thank you for your letter of January 19, 2001 requesting an extension of the captioned permit. Unfortunately, your permit expired on 1/26/2000 with no request for extension within the three (3) months prior to the expiration date (permit condition 10.). Therefore, we cannot extend your permit administratively. To legally continue work on this well you must do the following:

1. Submit an acceptably completed Well Completion Report Part I.
2. Choose to do one of the following:
   a. Reapply for a well construction permit.
   b. Apply for both a well construction and pump installation permit,
   c. Go before the Commission to have the Commission approve an extension for the expired well construction permit.

In regards to item 1, if we understand correctly, the well drilling was completed though no pumping tests were performed. However, we have not received a well completion report for the work performed to date as is required 60 days after completion of well construction (permit condition 7a through e), which is a violation of your permit. We do not know the current condition of the well and if it adheres to the Well Construction and Pump Installation Standards as is required under permit condition 9. This may result in other potential violations of the Standards. This item must be addressed before we can accept any new applications for this well. However, staff may initiate enforcement action on violations at any time after proper notice and violations are subject to possible fines of up to $1000 per day. We request a response to this item within 60 days regardless of the extension request for continued work.

In regards to item 2, further well construction work (such as casing installation, well pad construction, grouting, etc.), may be necessary and pumping tests have not been performed, thus a well construction permit is required. You may apply for permit for either well construction or both well construction and (permanent) pump installation, all of which can be handled administratively. Alternatively, you may request a hearing before the Commission to extend your expired well construction permit, but you would still need to apply for a pump installation permit for your permanent pump installation prior to administrative or Commission approval.

If you have any questions, please contact Roy Hardy of the Water Commission staff at 587-0274 or toll-free at 984-4644, extension 70274.

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

RH:ky

Aaron Frandsen C-16550
Dear Mr. Pace:

Extension Request for Well Construction Permit
Hokukano 2 Well (Well No. 3153-02)

Thank you for your letter of January 19, 2001 requesting an extension of the captioned permit. Unfortunately, your permit expired on 1/26/2000 with no request for extension within the three (3) months prior to the expiration date (permit condition 10.). Therefore, we cannot extend your permit administratively. To legally continue work on this well you must do the following:

1. Submit an acceptably completed Well Completion Report Part I.
2. Choose to do one of the following:
   a. Reapply for a well construction permit.
   b. Apply for both a well construction and pump installation permit,
   c. Go before the Commission to have the Commission approve an extension for the expired well construction permit.

In regards to item 1, if we understand correctly, the well drilling was completed though no pumping tests were performed. However, we have not received a well completion report for the work performed to date as is required 60 days after completion of well construction (permit condition 7a through e), which is a violation of your permit. We do not know the current condition of the well and if it adheres to the Well Construction and Pump Installation Standards as is required under permit condition 9. This may result in other potential violations of the Standards. This item must be addressed before we can accept any new applications for this well. However, staff may initiate enforcement action on violations at any time after proper notice and violations are subject to possible fines of up to $1000 per day. We request a response to this item within 60 days regardless of the extension request for continued work.

In regards to item 2, further well construction work (such as casing installation, well pad construction, grouting, etc.), may be necessary and pumping tests have not been performed, thus a well construction permit is required. You may apply for permit for either well construction or both well construction and (permanent) pump installation, all of which can be handled administratively. Alternatively, you may request a hearing before the Commission to extend your expired well construction permit, but you would still need to apply for a pump installation permit for your permanent pump installation prior to administrative or Commission approval.

If you have any questions, please contact Roy Hardy of the Water Commission staff at 587-0274 or toll-free at 984-4644, extension 70274.

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

RH:ky

C. Aaron Frandsen C-16550
COMMISSION ON WATER RESOURCE MANAGEMENT

FROM: LINNEL
DATE: JAN 22 2001
SUSPENSE DATE

INIT. __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __
INIT. __ __ __ __ __ __ __ __ __ __ __ __ __
FOR: Approval  Signature  Information
INIT. __ __ __ __ __ __ __ __ __ __ __ __ __
PLEASE: See Me  Review & Comment  Take Action  Type Draft  Type Final  File  Xerox __ copies
INIT. __ __ __ __ __ __ __ __ __ __ __ __ __
DATE: JAN 22 2001
SUSPENSE DATE

The mind handling this? (addressed to you). They need to apply for a PIP - only have a WEP. Hawaiʻi receives a signed permit which makes their drilling technically a violation. Came in 02 Mar 98! (to Mitch)
January 19, 2001

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

Re: Well Construction Permit – Hokukano 2 Well No. 3153-02

Dear Charlie,

We respectfully request an extension of the above headed well permit for an additional six month period. The well drilling was actually completed by the end of the permitted time, however sourcing a reliable deep water pump and matching power supply system for pump testing has been the reason for extensive delay and purpose for our request for permit extension. We have finally been able to source pump and power supply adequate for testing from our drilling competition, Roscoe Moss. Engineer, William Moore, assures us that we are ready to go upon receipt of your approval.

If you have any questions or concerns, please do not hesitate to call.

Sincerely yours,

W. H. Pace
Mr. Tom Pace  
Cardinal Investment Co.  
P.O. Box 2240  
Kealakekua, Hawaii  96750

Dear Mr. Pace:

Well Construction Permit  
Hokukano 2 Well (Well No. 3153-02)

Enclosed are two (2) copies of your approved Well Construction Permit for the captioned well(s) which authorizes well construction activities but excludes installation work for your permanent pump. As part of the Chairperson's approval, the following special conditions were added and are part of your permit under Permit Condition 12:

Special Conditions

1. The wall thickness shall be in compliance with Hawaii Well Construction and Pump Installation Standards Section 2.4.c.
2. The length of solid casing shall be 90% of the distance between the ground and the top of the aquifer per Hawaii Well Construction and Pump Installation Standards Section 2.4.d.
3. The casing material shall be in compliance with the Hawaii Well Construction and Pump Installation Standards Section 2.4.e.

This permit does not authorize work for your permanent pump installation. Approval and issuance of your pump installation permit is contingent upon completed application and information provided to and accepted by Commission staff as required in the Well Construction & Pump Installation Standards (1/23/97) and any special conditions performed under this permit. Please note that special conditions may simply highlight application deviations from the Standards.

The well owner is responsible for all conditions of the permit. This includes ensuring that the well construction contractor, or other party who constructs the well(s), submits a completed Part I of the Well Completion Report form (enclosed) within sixty (60) days after the well construction work is completed. Be advised that you may be subject to fines of up to $1000 per day for any violations of your permit conditions.

To validate your permit, please sign and have the contractor sign both permit originals and return one for our files. Also, copies of the aquifer pump test worksheet and the well completion report form are enclosed for your use. Please provide all the information in this packet to your well drilling contractor.

Also attached for your information is a copy of the Department of Health's review comments.

If you have any questions, please call the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), extension 70255.

Aloha,

[Signature]

for: MICHAEL D. WILSON  
Chairperson

Enclosures
WELL CONSTRUCTION PERMIT
Hokukano 2 Well, Well No. 3153-02

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 Hokukano 2 Well (Well No. 3153-02) at Kealakekua, Hawaii. TMK 7-8-01:001, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) 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.

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

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

4. 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.

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

6. 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 water rights.

7. The following shall be submitted to the Chairperson within sixty (60) days after completion of work:
   b. Elevation (referenced to mean sea level, msl) survey by a Hawaii-licensed surveyor.
   c. As-built sectional drawing of the well.
   d. Plot plan and map showing the exact location of the well.
   e. Complete pumping test records, including time, pumping rate, drawdown, chloride content, and other data.

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

9. The well construction permit application is incorporated into this permit by reference and is subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97).

10. The permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the 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 three (3) months prior to the date the permit expires. If the commencement date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.

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

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

Date of Approval: January 26, 1998
Expiration Date: January 26, 2000

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. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day.

Permittee's Signature: ______________________ Date: 19 FEB 98
Printed Name: I.W. PAC CARDINAL INVESTMENT Firm or Title: PRES
Driller's Signature: ______________________ License #: C-16,550 Date: Feb 27 1998
Printed Name: Aaron Frandsen Firm or Title: IMPACT WELL DRILLING

Please sign both copies of this permit, return one to the Chairperson, and retain the other for your records.
Ryan, why don't we know well section prior to WCR issuance? What's special about this one?
Mr. Tom Pace
Cardinal Investment Co.
P.O. Box 2240
Kealakekua, Hawaii 96750

Dear Mr. Pace:

Well Construction Permit
Hokukano 2 Well (Well No. 3153-02)

Enclosed are two (2) copies of your approved Well Construction Permit for the captioned well(s) which authorizes well construction activities but excludes installation work for your permanent pump. As part of the Chairperson's approval, the following special conditions were added and are part of your permit under Permit Condition 12:

Special Conditions

1. The wall thickness shall be in compliance with Hawaii Well Construction and Pump Installation Standards Section 2.4c.
2. The length of solid casing shall be 90% of the distance between the ground and the top of the aquifer per Hawaii Well Construction and Pump Installation Standards Section 2.4d.
3. The casing material shall be in compliance with the Hawaii Well Construction and Pump Installation Standards Section 2.4e.

This permit does not authorize work for your permanent pump installation. Approval and issuance of your pump installation permit is contingent upon completed application and information provided to and accepted by Commission staff as required in the Well Construction & Pump Installation Standards (1/23/97) and any special conditions performed under this permit. Please note that special conditions may simply highlight application deviations from the Standards.

The well owner is responsible for all conditions of the permit. This includes ensuring that the well construction contractor, or other party who constructs the well(s), submits a completed Part I of the Well Completion Report form (enclosed) within sixty (60) days after the well construction work is completed. Be advised that you may be subject to fines of up to $1000 per day for any violations of your permit conditions.

To validate your permit, please sign and have the contractor sign both permit originals and return one for our files. Also, copies of the aquifer pump test worksheet and the well completion report form are enclosed for your use. Please provide all the information in this packet to your well drilling contractor.

Also attached for your information is a copy of the Department of Health's review comments.

If you have any questions, please call the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), extension 70255.

Aloha,

[Signature]

for: MICHAEL D. WILSON
Chairperson

Enclosures
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 Hokukano 2 Well (Well No. 3153-02) at Kealakekua, Hawaii, TMK 7-9-01:001, subject to the Hawaii Well Construction & Pump Installation Standards (12/3/97) 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.

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

3. 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.

4. 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.

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

6. 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.

7. The following shall be submitted to the Chairperson within sixty (60) days after completion of work:
   b. Elevation (referenced to mean sea level, msl) survey by a Hawaii-licensed surveyor.
   c. As-built sectional drawing of the well.
   d. Plot plan and map showing the exact location of the well.
   e. Complete pumping test records, including time, pumping rate, drawdown, chloride content, and other data.

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

9. The well construction permit application is incorporated into this permit by reference and is subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97).

10. The permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the 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 three (3) months prior to the date the permit expires. If the commencement date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.

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

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

Date of Approval: January 26, 1998  Expiration Date: January 26, 2000

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. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day.

Permittee's Signature: ___________________________ Date: __________

Printed Name: ___________________________ Firm or Title: ___________________________

Driller's Signature: ___________________________ License #: __________ Date: __________

Printed Name: ___________________________ Firm or Title: ___________________________

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

Attachment

c: USGS
Department of Health/ Safe Drinking Water, Wastewater, and Clean Water Branches
Hawaii Department of Water Supply
### SECTION 1: WELL LOCATION INFORMATION

<table>
<thead>
<tr>
<th>Island</th>
<th>SW. MAUNA LOA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquifer System</td>
<td>Domestic</td>
</tr>
<tr>
<td>Aquifer Sector</td>
<td>KEALAKEKUA</td>
</tr>
</tbody>
</table>

### SECTION 2: WELL SECTION DATA

<table>
<thead>
<tr>
<th>Solid Casing</th>
<th>Material</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A-242</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Casing</th>
<th>Material</th>
<th>Designation</th>
<th>Length</th>
<th>Diameter</th>
<th>Wall Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A53</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rock Packing</th>
<th>Hole Diameter</th>
<th>Total Depth</th>
<th>Elevation at top of casing</th>
<th>Ground Elevation</th>
<th>Estimated Head</th>
<th>Calculated Aquifer Thickness</th>
<th>County Water Supply</th>
<th>County or Non-County</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>ft., m.s.i.</td>
<td>ft., m.s.i.</td>
<td>ft., m.s.i.</td>
<td>ft.</td>
<td></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></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cement Grout</th>
<th>ft.</th>
<th>Cement Grout</th>
<th>ft.</th>
<th>Solid Casing</th>
<th>ft., m.s.i.</th>
<th>Ground Elevation</th>
<th>ft., m.s.i.</th>
<th>1/4 Aquifer Thickness</th>
<th>ft.</th>
<th>1/4 Aquifer Thickness Provided</th>
<th>14606 ft.</th>
<th>Depth of Well below Sea Level</th>
<th>-1350 ft.</th>
<th>okay</th>
<th>(refer to HWCPIS Section 2.2)</th>
</tr>
</thead>
</table>

### SECTION 3: CHECKLIST

<table>
<thead>
<tr>
<th>Well Depth</th>
<th>Theoretical Thickness of Aquifer</th>
<th>58425 ft.</th>
<th>1/4 Aquifer Thickness</th>
<th>14606 ft.</th>
<th>Depth of Well below Sea Level</th>
<th>-1350 ft.</th>
<th>okay</th>
<th>(refer to HWCPIS Section 2.2)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Well Casing</th>
<th>Minimum Wall Thickness</th>
<th>Material</th>
<th>County or Non-County</th>
<th>non-county</th>
<th>Minimum Thickness per standards</th>
<th>0.375 in.</th>
<th>too small</th>
<th>(refer to HWCPIS Section 2.4 c)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Minimum Length of Solid Casing</th>
<th>0.321 in.</th>
<th>90% of ground to top of aquifer</th>
<th>1305 ft.</th>
<th>too shallow</th>
<th>(refer to HWCPIS Section 2.4 d)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Casing Material</th>
<th>ASTM A-242</th>
<th>too shallow</th>
<th>(refer to HWCPIS Section 2.4 e)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Annular Space</th>
<th>Depth of Grouting</th>
<th>Calculated Depth of Grouting</th>
<th>500 ft.</th>
<th>Depth of Grouting provided</th>
<th>500 ft.</th>
<th>okay</th>
<th>(refer to HWCPIS Section 2.6 c)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Thickness of Annular Space</th>
<th>4 in.</th>
<th>okay</th>
<th>(refer to HWCPIS Section 2.6 d)</th>
</tr>
</thead>
</table>
To: Paul Frandsen  
Company: Hokukano Ranch  
Fax Number: 323-2371  
Phone Number:  

Notes/Comments:  
Paul-

Please complete the proposed well section based on your estimate of the water level that you will hit. This is the only way you will be able to demonstrate that you are familiar with the requirements of the Hawaii Well Construction and Pump Installation Standards. Based on our acceptance of your application on November 14, 1997 (described in the letter to Tom Pace dated Nov. 18, 1997), your 90-day deadline will be February 12, 1998. Therefore, we recommend you complete the required information and fax it back to us as soon as possible.
M 1209
9. PROPOSED WELL SECTION

Elevation at top of casing: 2879 ft, msl.

Cement Grout: 500 ft.

Rock Packing: from 500 ft to bottom.

Hole Diameter: 24 in.

Total Depth: TBD ft.

Give a depth based on the water level you estimate from the Hakuwano Well.

Ground Elevation: 2875 ft, msl.

Solid Casing:
- Material: STEEL
- Length: 100 ft
- Diameter: 16 in.
- Wall thickness: 0.321 in.

Casing:
- Perforated
- Length: 100 ft
- Diameter: 16 in.
- Wall thickness: 0.321 in.
- Openings 7.3/4 in.

Open Hole:
- Length: 100 ft
- Diameter: 24 in.

Ground Elevation: 2875 ft, msl.

You need to give a length.

What does this mean?

Approximate elevation at time of filing application. Ground elevation above mean sea level (msl) by a surveyor licensed by the State must be submitted at start of construction. Final elevations of well components shall be submitted in the well completion/well abandonment reports.
SECTION 1: WELL LOCATION INFORMATION

<table>
<thead>
<tr>
<th>Island</th>
<th>HAWAII</th>
<th>Proposed Use</th>
<th>Domestic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquifer System</td>
<td>SW.MAUNA LOA</td>
<td>Proposed Withdrawal</td>
<td>1.2</td>
</tr>
<tr>
<td>Aquifer Sector</td>
<td>KEALAKEKUA</td>
<td>System Sustainable Yield</td>
<td>38</td>
</tr>
</tbody>
</table>

SECTION 2: WELL SECTION DATA  
(enter data in grey cells only)

<table>
<thead>
<tr>
<th>Elevation at top of casing</th>
<th>Solid Casing</th>
<th>Cement Grout</th>
<th>Rock Packing</th>
<th>Hole Diameter</th>
<th>Total Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>ft., m.s.l.</td>
<td>ft.</td>
<td>ft.</td>
<td>in.</td>
<td>ft.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated Head</th>
<th>Calculated Aquifer Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>ft., m.s.l.</td>
<td>0 ft.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>County Water Supply (Y/N ?)</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

SECTION 3: CHECKLIST  
(values to check are shaded)

Well Depth
- Theoretical Thickness of Aquifer: 0 ft.
- 1/4 Aquifer Thickness: 0 ft.
- Depth of Well below Sea Level: -2875 ft. okay (refer to HWCPIS Section 2.2)

Well Casing
- Minimum Wall Thickness
  - Material: Steel
  - County or Non-County: non-county
  - Minimum Thickness per standards: 0.250 in.
  - Wall Thickness Provided: 0.321 in. okay (refer to HWCPIS Section 2.4 c)
- Minimum Length of Solid Casing
  - 90% of ground to top of aquifer: 2588 ft.
  - Length of solid casing Provided: 0 ft. too shallow (refer to HWCPIS Section 2.4 d)
- Casing Material: ASTM A-242 #N/A (refer to HWCPIS Section 2.4 e)
- Annular Space
  - If the cell above reads #N/A, reference HWCPIS
  - Depth of Grouting: Calculated Depth of Grouting 500 ft.
  - Depth of Grouting provided: 500 ft. okay (refer to HWCPIS Section 2.6 c)
  - Thickness of Annular Space: 4 in. okay (refer to HWCPIS Section 2.6 d)
TO: Honorable Lawrence Miike, Director
   Department of Health
   Attention: Dennis Tulang, Wastewater Branch
   William Wong, Safe Drinking Water Branch

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

SUBJECT: Well Construction Permit Application
          Hokukano 2 Well (Well No. 3153-02)

Transmitted for your review and comment is a copy of the captioned well 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 November 30, 1997.

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

RI:ss
Attachment(s)

RESPONSE:

[ ] This well qualifies as a source which will serve as a source of potable water to a public water system (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, §11-25-29.

[ ] 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 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).

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

[ ] No comments/objections

Contact Person: William Wong
Phone: 586-4258
Signed: William Wong
Date: 11/28/97
TO: Honorable Lawrence Miike, Director
    Department of Health
    Attention: Dennis Tulang, Wastewater Branch
    William Wong, Safe Drinking Water Branch

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

SUBJECT: Well Construction Permit Application
    Hokukano 2 Well (Well No. 3153-02)

Transmitted for your review and comment is a copy of the captioned well 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 November 30, 1997.

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

I:ss
Attachment(s)

RESPONSE:
[ ] This well qualifies as a source which will serve as a source of potable water to a public water system (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).

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

[ ] No comments/objections

Contact Person: Lani N. Kajiwara

Phone: 587-4294

Signed: Lani N. Kajiwara

Date: 11-21-97
Mr. Tom Pace  
Cardinal Investment Co.  
P.O. Box 2240  
Kealakekua, HI  96750

Dear Mr. Pace:

**Well Construction Permit Application for Well No. 3153-02**

We acknowledge receipt, on November 14, 1997, of your completed well construction permit application for the Hokukano 2 Well (Well No. 3153-02). You can expect your application to be processed within ninety (90) days from this date.

For your information, the process of constructing a well is normally regulated and permitted in two (2) steps. First, a well construction permit is issued for drilling and testing purposes only. Based upon information provided by you through a Well Completion Report Part 1 (Well Construction), a pump installation permit (upon completed application) may then be issued to authorize pump work. If a pump is installed then a Well Completion Report Part 2 (Pump Installation) is required.

If you have any questions about your permit application, please contact Mr. Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), extension 70255.

Sincerely,

[Signature]

RAE M. LOUI  
Deputy Director

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

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

SUBJECT: Well Construction Permit Application  
Hokukano 2 Well (Well No. 3153-02)

Transmitted for your review and comment is a copy of the captioned well 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 November 30, 1997.

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

RESPONSE:

This well qualifies as a source which will serve as a source of potable water to a public water system (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 [ ] is not located near the proposed well site (information attached).

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

No comments/objections

Contact Person: ____________________________ Phone: ____________________________

Signed: ____________________________ Date: ____________________________
<table>
<thead>
<tr>
<th>F YR</th>
<th>APP</th>
<th>D</th>
<th>SRC/CTR</th>
<th>COST</th>
<th>PROJECT</th>
<th>PH</th>
<th>ACT</th>
<th>AMOUNT</th>
<th>NAME/DESCRIPTION (WANG INPUT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>97</td>
<td>000</td>
<td>C 1026</td>
<td>0752</td>
<td></td>
<td></td>
<td></td>
<td>(1) 25.00</td>
<td>Bank of Hawaii</td>
</tr>
<tr>
<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>(3)</td>
<td></td>
</tr>
<tr>
<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>TOTAL</td>
<td>25.00</td>
</tr>
</tbody>
</table>

REMARKS: LINE (1) Well No. 3153-02 (WCPA/PTPA)  
LINE (2)  
LINE (3)  
LINE (4)  

PAY TO THE ORDER OF  
Bank of Hawaii  

DOLLARS  

DATE: 11/18/97

KEALAKEKUA BRANCH, KEALAKEKUA, HAWAII

KCE:0001

6-9-122


## Ground Water Well Index / Summary

**State of Hawaii / Department of Land and Natural Resources / Commission on Water Resource Management**

**Ground Water Well Index / Summary**

**Island Code** 8

<table>
<thead>
<tr>
<th>Well No.</th>
<th>Well Name</th>
<th>Aquifer Code</th>
<th>Owner/User</th>
<th>Year Drilled</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Total Depth ft</th>
<th>Case Dia in.</th>
<th>Bottom Ground</th>
<th>Bottom Solid Casing</th>
<th>Bottom Perf Casing</th>
<th>Bottom of Hole</th>
<th>Static Head</th>
<th>Cl- Temp</th>
<th>Specific Capacity T</th>
<th>Installed Capacity Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>3153-01</td>
<td>HOKUKANO RANCH</td>
<td>HOKUKANO RANCH</td>
<td>HOKUKANO RANCH</td>
<td>1996</td>
<td>193112</td>
<td>1555356</td>
<td>16</td>
<td>1345</td>
<td>0</td>
<td>15.6</td>
<td>633</td>
<td>.576</td>
<td>UNU</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Pump Test Result**

- **Initial**
  - Cl- Temp:
  - Specific Capacity T:
  - Installed Capacity Use:

**Notes:**
- O
APPLICATION FOR PERMIT

State of Hawaii
Commission on Water Resource Management
Department of Land and Natural Resources

APPLICATION FOR PERMIT 97 JUN 25 ALL: 58

Well Construction or Pump Installation

Instructions: Please print in ink or type, attach required maps, and send the completed application with the non-refundable processing fee of $25.00 payable to the Department of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance in completing this application, please call the Commission's Regulation Branch at 587-0225.

1. APPLICANT: (circle primary contact a, b, or c) Primary Fax: 808-323-2371
   (a) WELL OWNER
      CARDINAL INVESTMENT COMPANY
      T.W. PACE
      P.O. BOX 2240
      KEALAKEKUA, HAWAII 96750
   (b) LANDOWNER
      HO'OKANO RANCH
      T.W. PACE
      P.O. BOX 2240
      HAWAII 96750
   (c) CONTRACTOR
      GARRETT H. CAMPBELL, RME
      P.O. BOX 2 HAUULA, HAWAII 96717

2. WELL LOCATION/NAME: HO'OKANO #2
   Address: P.O. BOX 2240, KEALAKEKUA, HAWAII 96750
   Tax Map Key: 7-9-01
   Island: HAWAII

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

4. PROPOSED PUMP INFORMATION: Rated Pump Capacity: 750+/- gallons per minute
   Pump Type:
      Deep Well Turbine
      Rotary
      Propeller
      Gas
      Diesel
      Electric, rated horsepower: 200
   If Pump Replacement, Existing Pump Capacity: __________ gallons per minute

5. PROPOSED USE:
   Municipal (including hotels, stores, etc.)
   Urban
   Industrial
   Domestic (individual, noncommercial water sys.)
   Irrigation (crop)
   LIVESTOCK
   BANANAS
   COFFEE
   CITRUS
   Military
   Other
   Livestock, Bananas, Coffees, Citrus
   Livestock
   Bananas
   Coffee
   Citrus
   Military
   Other
   # Dwelling Units: 17
   # Acres: 22,000+

6. (a) PROPOSED AMOUNT OF WITHDRAWAL: 1.2 MM gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
      Flow-meter
      Open-pipe
      Orifice Plate
      Weir
   Completion Date:

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

8. REMARKS, EXPLANATIONS:

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

Well Owner

Contractor

For Official Use Only:
Date Approved
Field Checked By
Date

3 Jan 97 WCIP Form
9. PROPOSED WELL SECTION

Elevation at top of casing
2879 ft., msl.

Ground Elevation: 2875 ft., msl

Cement Grout: 500 ft.

Rock Packing __________ ft.
frm 500' to bottom

Hole Diameter: 24" in.

Solid Casing:
Material: STEEL
Length: 100' of bottom
Diameter: 16" in.
Wall thickness: 321 TD

Total Depth: TBD ft.

Open Hole:
Length: 100'
Diameter: 24" in.

Casing: □ Perforated □ Screen
Material: STEEL
Length: 100' fl.
Diameter: 16" in.
Wall thickness: 321 TD in.
Openings 75 X 3/4 sq. in./A.F.

Approximate elevation at time of filing application. Ground elevation above mean sea level (msl) by a surveyor licensed by the State must be submitted at start of construction. Final elevations of well components shall be submitted in the well completion/well abandonment reports.
Mr. Tom Pace
Cardinal Investment Company
P.O. Box 2240
Kealakekua, HI 96750

Dear Mr. Pace:

Well Construction / Pump Installation Permit Application for the Hokukano #2 Well

We have received your well construction / pump installation permit application and filing fee for the Hokukano #2 Well. However, your application is incomplete. Matters which must be addressed before we accept your application as complete are as follows:

1. The application form you previously submitted is outdated. Please fill out the current application form, which is attached for your use.

2. All well drillers must have a license specified under Section 1.6 of the Hawaii Well Construction and Pump Installation Standards, adopted in January of 1997. Please provide your contractor's license number if you intend to drill this well yourself.

3. Please submit the original and two copies of your application, along with 3 copies of a USGS map and a TMK map showing the location of your well.

Upon receipt of the above information, we will accept your application as complete and you can then expect your application to be processed within ninety (90) days.

For your information, the process of constructing a well is normally regulated and permitted in two (2) steps. First, a well construction permit is issued for drilling and testing purposes only. Based upon information provided by you through a Well Completion Report Part 1 (Well Construction), a pump installation permit may then be issued to authorize pump work. If a pump is installed then a Well Completion Report Part 2 (Pump Installation) is required.

If you have any questions about your permit application, please contact Mr. Ryan Imata of the Commission staff at 587-0255.

Sincerely,

RAE M. LOUI
Deputy Director

Rl:ss
Attachment
WELL CONSTRUCTION PERMIT

APPLICATION FOR

PUMP INSTALLATION PERMIT

INSTRUCTIONS: Please print or type and send completed application with attachments to the Division of Water and Land Development, P.O. Box 373, Honolulu, Hawaii 96809. (Filing fee waived for government agencies.) If necessary, phone 808-587-4993, Hydrology/Geology Section for assistance.

1. WELL LOCATION
   Island HAWAII Tax Map Key 3-7-9-1-01
   Address HAWAII HAWAII TRACT P.O. BOX 373 KEAAKEPAU H1 96750
   (Attach a USGS map (scale 1"=2000') and property tax map showing well location referenced to established property boundaries.)

2. WELL OWNER
   LANDOWNER
   Firm Name CARDINAL INVESTMENT COMPANY
   Contact Person TAM FAKE
   Address P.O. BOX 2240
   KEAAKEPAU H1 96750
   Phone 808-323-1239

3. PROPOSED CONTRACTOR FOR:
   □ Well Drilling □ Pump Installation
   Name WELL OWNER
   Address ____________________________
   Phone ____________________________
   Contractor's License No. ____________________________

4. PROPOSED WORK
   □ Drill New Well □ Deepen □ Redrill
   □ Alter □ Install New Pump □ Replace Pump □ Modify Pump
   (Briefly describe the proposed work and fill in the diagram on the back of this form.)

5. PROPOSED USE
   □ Municipal (including hotels, stores, etc.) □ Military
   □ Domestic (individual, noncommercial water systems) □ Industrial
   □ Irrigation (specify) DIVERSIFIED AGRIBUSINESS
         LIVESTOCK 1,500 HEAD
         FARM 200 ACRES
   □ Other (specify) ____________________________

6. PROPOSED AMOUNT OF WITHDRAWAL 1.2 M GALLONS PER DAY

7. PROPOSED PUMP INFORMATION
   Pump Type: □ Vertical Turbine □ Submersible
   □ Centrifugal
   Motor: □ Diesel □ Gas □ Electric: 20 HP
   Rated Pump Capacity 700 GALLONS PER MINUTE (GPM)

Well Owner (print) CARDINAL INVESTMENT COMPANY
Landowner (print) CARDINAL INVESTMENT COMPANY

Signature ____________________________
Date 14 FEB 89

For Official Use Only:
Field Checked By ____________________________
Latitude ____________________________
Longitude ____________________________
Hydrologic Unit ____________________________
State Well No. ____________________________

Date ____________________________
Briefly describe the proposed work:

**Mobilize - Set up - Drill w/ Cable Tool Assembly**

---

**PROPOSED SECTION OF WELL**

Elevation at top of casing 2879 ft., mal.

- **Ground Elev. 2875 ft., mal**

- **Cement Grout** 500 ft.

- **Hole Dia. 24 in.**

- **Total Depth TBD ft.**

- **Rock Packing** TBD ft.

- **Solid Casing:**
  - **Material:** Steel
  - **Length:** 30-40 ft.
  - **Diameter:** 6 1/2 in.
  - **Wall thickness:** 1/8 in.

- **Casing:**
  - **Material:** Steel
  - **Length:** 20-40 ft.
  - **Diameter:** 16 in.
  - **Wall thickness:** 1/8 in.
  - **Openings:** TBD sq. in./L.F.
  - **Perforations:** 1/8 in. x 18 in.

- **Open Hole:**
  - **Length:** 100 ft.
  - **Diameter:** 24 in.

*Approximate elevation at time of filing application. Final elevation (mal) by a surveyor licensed by the State must be submitted at start of construction.*