WELL CONSTRUCTION PERMIT

Dennis Well, Well No. 3586-04

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 construction and testing of Dennis Well (Well No. 3586-04) at 15-1973 4th Ave, HPP, Hawaii, TMK 1-5-29; 084, subject to the Hawaii Well Construction & Pump Installation Standards (February 2004) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 521, Honolulu, HI 96803, 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 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. 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, 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. In the event that subsurface 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'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 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) surveyed 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 this permit by reference and is subject to the Hawaii Well Construction & Pump Installation Standards (February 18, 2004; 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(1) 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 27, 2004
Expiration Date: August 27, 2006

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 $5000 per day starting from the permit date of approval.

Permittee's Signature: [Signature]
Printed Name: ARDIS DENNIS
Firm or Title: Land owner
Date: Oct 6, 04

Driller's Signature: [Signature]
Printed Name: ROBERT DIAMOND
C-57 License #: 1203377A Date: 10-29-04
Firm or Title: ROD DIAMOND Construction

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
NOTICE TO START DRILLING

DATE: 11/01/2004

This is to inform you that we would like to start well construction on DENNIS WELL, Well No.3586-04 and would like to use the test pump as the permanent pump prior to final pump installation permit issuance.

Fill free to call me at 808-987-8100 or home 808-966-6398. Rod Diamond Well Driller/Contractor BC23379
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR PERMIT ISSUANCE

FROM: RYAN DATE: ____________________ SUSPENSE DATE: ____________

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

ANAKALEA, P. MATHIAS, T. 3 Approval See Me
BAUER, G. NAKAMA, L. 3 Signature
CHING, F. NAKANO, D. 4 Information
DANBABA, S. CHYE, M.
FUJII, N. SAKODA, E.
GOODING, K. STAHL, K.
HARDY, R. SUBIA, S.
HIGA, D. SWANSON, S.
ICE, C. LYNEDO, D.
IMATA, R. YODA, K.
IZU, Y. YOSHINAGA, M.
KUNIMURA, I.

WELL NUMBER 3586-04 WELL NAME Dennis

☐ 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
September 23, 2004

Ref: 3586-04.wcp

Mr. Ardis Dennis
HCR 3 10094
Keeau, Hi 96749

Dear Mr. Dennis:

Well Construction Permit
Dennis Well (Well No. 3586-04)

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.

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 (February 2004) 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 $5000 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]

W. Roy Young
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 Dennis Well (Well No. 3586-04) at 15-1973 4th Ave, HPP, Hawaii, TMK 1-5-26: 064, subject to the Hawaii Well Construction & Pump Installation Standards (February 2004) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 821, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work authorized by this permit commences and shall be allowed to inspect construction 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 14-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 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. 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, 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. In the event that subsurface 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'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 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, 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 (February 16, 2004; 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 than 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 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 27, 2004
Expiration Date: August 27, 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 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 $5000 per day starting from the permit date of approval.

Permittee’s Signature: _______________________________ Date: ________________
Printed Name: _______________________________ Firm or Title: _______________________________
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: Safe Drinking Water, Wastewater, and Clean Water Branches
Hawaii Department of Water Supply
Well Check Program
4/1/04 - Revised for update to Well Standards (February 2004)

<table>
<thead>
<tr>
<th>Data Input</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Number</td>
<td>3586-04</td>
</tr>
<tr>
<td>Well Name</td>
<td>Dennis</td>
</tr>
<tr>
<td>Ground Elevation</td>
<td>60</td>
</tr>
<tr>
<td>Cement Grout</td>
<td>50</td>
</tr>
<tr>
<td>Grouting Method</td>
<td>Other</td>
</tr>
<tr>
<td>Hole Diameter</td>
<td>12</td>
</tr>
<tr>
<td>Total Depth</td>
<td>70</td>
</tr>
<tr>
<td>Estimated Head</td>
<td>10</td>
</tr>
<tr>
<td>Public Water Supply Well?</td>
<td>No</td>
</tr>
<tr>
<td>Solid Casing Material</td>
<td>PVC plastic</td>
</tr>
<tr>
<td>Solid Casing Specification</td>
<td>Schedule 40</td>
</tr>
<tr>
<td>Solid Casing Length</td>
<td>60</td>
</tr>
<tr>
<td>Solid Casing Diameter</td>
<td>6</td>
</tr>
<tr>
<td>Solid Casing Wall Thickness</td>
<td>??</td>
</tr>
<tr>
<td>Open Casing Length</td>
<td>10</td>
</tr>
</tbody>
</table>

Results

<table>
<thead>
<tr>
<th>Well Depth</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical Thickness of Aquifer</td>
<td>410</td>
</tr>
<tr>
<td>1/4 Aquifer Thickness</td>
<td>102.5</td>
</tr>
</tbody>
</table>

| Depth of Well Below Sea Level | 10 - okay |

<table>
<thead>
<tr>
<th>Well Casing</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Wall Thickness</td>
<td>PVC plastic</td>
</tr>
<tr>
<td>Minimum Thickness per standards</td>
<td>No requirement</td>
</tr>
</tbody>
</table>

| Wall Thickness Provided | too small |
| Minimum Length of Solid Casing | 45 |
| 90% of ground to top of aquifer |       |

| Length of Solid Casing Provided | 60 - okay |
| Casing Material | Schedule 40 |
| (for pvc only - check for 200' limit) | In compliance |

Annular Space

| Depth of Grouting | 35 |
| Depth of Grouting provided | 60 - okay |
| Minimum Annular Space required | 2 |
| Thickness of Annular Space | 3 - okay |
July 19, 2004

TO: Dede Mamiya, Administrator
    Land Division
FROM: Yvonne Y. Izu, Deputy Director
    Commission on Water Resource Management
SUBJECT: Well Construction/Pump Installation Permit Application
    Dennis Well (Well No. 3586-04)

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 27, 2004. 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.

[ ] 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 a CDUP. If a CDUP is required it has not been approved and is not currently active.

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

[ ] No objections

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

Contact Person: Gary Martin Phone: 587-0421

Signed: Gary Martin Date: AUG 27 2004
July 19, 2004

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
Dennis Well (Well No. 3586-04)

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 27, 2004. 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.

[ ] If 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.

No comments/objections

Contact Person: Loin Kajiwara Phone: 586-1291
Signed: Loin Kajiwara Date: 7-22-2004
A septic tank file has been found and the following information is provided. In general, the Department of Health has reviewed and approved of the plans based on the information submitted as verification that a treatment individual wastewater system (IWS) such as a septic tank was constructed and authorized to be used for wastewater disposal from a building/dwelling.

<table>
<thead>
<tr>
<th>Tax Map Key number</th>
<th>3-1-5029-084</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Hpp 5331</td>
</tr>
<tr>
<td>Septic Tank File #</td>
<td></td>
</tr>
<tr>
<td>Applicant Name</td>
<td>Dennis Ardis</td>
</tr>
<tr>
<td>Submit Plan Date</td>
<td>3-30-2004</td>
</tr>
<tr>
<td>Plan Approval Date</td>
<td>4-16-2004</td>
</tr>
<tr>
<td>Inspection Date</td>
<td></td>
</tr>
<tr>
<td>System Approved for Use Date</td>
<td></td>
</tr>
<tr>
<td>BPA Date</td>
<td></td>
</tr>
</tbody>
</table>

- **System / Disposal Via**
  - septic tank
  - Bed

- **Use For**
  - 3 bedrooms

- **Designed By**
  - Nickel

- **Percolation Rate / Capacity**
  - min/in
  - 1000 gallons

Wastewater Branch Engineer PD Section (Oahu)

For further information, you may also call the Wastewater Branch neighbor island engineers:

- X Mr. Jerry Nunogawa at the Hawaii District Health Office, Hilo at (808)933-0401
- Mr. Joe Tateyama at the Kauai District Health Office at (808)241-3323
- Mr. Roland Tejano at the Maui District Health Office at (808)984-8232

cesspool faxes.wpd sm rev October 10, 2003
July 19, 2004

TO: Honorable Chiyome L. Fukino, M.D., Director
    Department of Health
    Attention: Harold Yee, Wastewater Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application

Dennis Well (Well No. 3586-04)

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 27, 2004. 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 of 16 service connections) and if the well water is used for drinking, the owner must 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 not separate systems by an or gate or an approved backflow preventer, and by clearly identifying all non-potable outlets with warning sign 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/observations.

Signed: Bill Young

Date: JUL 23 2004
July 19, 2004

TO:    Honorable Chiyome L. Fukino, M.D., Director  
       Department of Health  
       Attention: Harold Yee, Wastewater Branch  
                  William Wong, Safe Drinking Water Branch  
                  Dr. Keith Kawakoe, 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  
         Dennis Well (Well No. 3586-04)

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 27, 2004. 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.

R:se
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 60 days per year or 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 29, Rules Relating to Potable Water Systems, §11-21f-2.

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 were to be used for drinking, the private owner would need to for bacteriological and chemical presence before allowing such use and notify Oahu Health Department if the water quality thereof. However, if future plans to move the public water system definition from Director of Health approval is required prior to implementation.

3. If the well is used to supply both potable and non-potable purposes in a single system, the user shall enumerate 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 systems with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be properly 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 (like a) is not located near the proposed well area (information attached).

An NPOES permit is required.

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

no comments/questions

Contact Person: Alec Wong  
Phone: 586-4309

Signed: Alec Wong  
Date: 7/27/04

04D173
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 3378, Honolulu, Hawaii 96801-3378. Inquiries may be directed to the Clean Water Branch at (808) 586-4309 or by fax at (808) 586-4352.

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
**Commission on Water Resource Management**

**Route Slip for New Applications**

**From:** Ryan  
**Date:** 7-Jul-04  
**Suspense Date:** 14-Jul-04

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**WELL NUMBER:** 3586-04  
**WELL NAME:** Dennis

**Attachments for Application Processing:** Both applicant & staff generated

1. TRANS. LETTER  
2. CWRM MAP  
3. APPL. FORM (5 COPIES)  
4. USGS MAPS (5 COPIES)  
5. TAX MAPS (5 COPIES)  
6. PARCEL OWNER VERIF.  
7. CONTRACTOR VERIF.  
8. ALL INFO FILLED IN  
9. BACKGROUND CHECK  
10. $25 FEE DEPOSIT SLIP  
11. DHP, SMA, EA check

**Folder:** Yes, made new file folder, attached.  
No, file folder already made, in file cabinet

**Incomplete Action Dates:**

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Mr. Dennis Ardis  
HCR #3 10094  
Keeau, HI 96749  

Dear Mr. Ardis:

Well Construction/Pump Installation Permit Application for Well No. 3586-04

We acknowledge receipt, on July 1, 2004, of your completed Well Construction/Pump Installation permit application and filing fee for the Dennis Well (Well No. 3586-04). 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,

YVONNE Y. IZU  
Deputy Director

RI:ss
July 19, 2004

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
          Dennis Well (Well No. 3586-04)

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 27, 2004. 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 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 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 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: Yvonne Y. Izu, Deputy Director  
    Commission on Water Resource Management  
SUBJECT: Well Construction/Pump Installation Permit Application  
    Dennis Well (Well No. 3586-04)  

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 27, 2004. 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.  

[ ] 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: ___________________________
July 19, 2004

TO: Holly McEldowney, Acting Administrator
Historic Preservation

FROM: Yvonne Y. Izu, Deputy Director
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
Dennis Well (Well No. 3586-04)

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 27, 2004. 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:
[ ] 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: __________
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This information has been supplied by third parties and has not been independently verified by Hawaii Information Service and is, therefore, not guaranteed.
Well No. 3586-04
Dennis Well

SCALE: 1" = 2000'
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**TOTAL** $ 50.00

**REMARKS:**

LINE (1) Well No. 3502-02, trk: 1-7-017:126-D1

LINE (2) Ardis Dennis, trk: 1-5-29:084
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

(3) WELL Construction and/or (1) 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 921, 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/lrm/wrm.

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

1. (a) □ WELL OWNER: Ardis Dennis  Contact Person: Tony Busek  Phone: cell 936-3542

(b) □ LANDOWNER: Ardis Dennis  Contact Person: Ardis Dennis  Phone: cell 936-3542

(c) □ CONTRACTOR: pending

2. WELL NAME: D Dennis

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

4. CONSTRUCTION: □ Dug  □ Drilled □ Shale □ Tunnel
   Is this well part of a battery of wells? □ Yes □ No

5. PROPOSED PUMPING RATE: 20 gallons per minute

6. PROPOSED USE: (check all that apply)
   □ Municipal (including hotels, stores, etc.)
   □ Domestic (individual, non-commercial water system)
   □ Industrial
   □ Irrigation (crop)
   □ Military
   □ Other (explain):
   No. of Acres:

7. (a) PROPOSED AMOUNT OF WITHDRAWAL:
   □ 260 gallons per day

(b) METHOD OF FLOW MEASUREMENT:
   □ Flowmeter  □ Open-pipe  □ Weir  □ Office  □ Other (explain):

8. OTHER INFORMATION:
   □ 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 587-0144
   Environmental Impact Statement (EIS) or Environmental Assessment (EA): To determine if an EIS or EA is necessary, call OEOC at 586-4185
   Special Management Area Permit (SMA) To determine if an SMA is necessary: on Oahu, call 527-5374; on Maui, call 961-6288; for Molokai, call 777-5037; on Kauai, call 241-6977.

   □ ARCHEOLOGICAL REQUIREMENTS: To find out if an archeological work is required: on Oahu, call Elaine Jardine at 692-8027; on Maui, call MaryAnne Macleod at 327-3690; for Molokai, call Cathy Geiger at 692-8023; on Kauai, call Nancy McIlwain at 742-1005.
   If required, please attach letter from DLNR Historic Preservation

10. REMARKS, EXPLANATIONS:

   (If more space is needed, please attach additional sheet)

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. For the signatures 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 approved date; 2) the contractor shall submit to the Commission a well completion 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 corrective 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 into compliance, and any work done while the permit is in suspension may result in fines of up to $1000/day.

Well Owner (print legibly): Ardis Dennis
Landowner (print legibly): Ardis Dennis
Signature: Ardis Dennis
Date: June 30, 04

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

WCPWA Form 711763
10. PROPOSED WELL SECTION

(Please attach schematic if different from diagram provided below)

Hole Diameter: 12 in.

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

Ground Elevation: 60 ft., masl

Solid Casing: 3 x 90% x (Ground Elev. - Water Level Elev.)
Total Length: 60 ft.
Nominal Diameter: 6 in.
Wall Thickness: 5/8 in.
Bottom Elevation: 60 ft., masl

Open Casing: 4 Perforated □ Screen
Total Length: 10 ft.
Nominal Diameter: 4 in.
Wall Thickness: 5/8 in.
Bottom Elevation: 10 ft., masl

Note: Neither bentonite nor mud should be used in saturated zones during drilling

Estimated Water Level Elevation 10 ft., masl

Open Hole:
Length:NA ft.
Diameter: NA in.
Bottom Elevation: NA ft., masl

Solid Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A63 □ 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 welds) □ ASTM A312 (mirror welds)
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 Motor 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 D3286

Open Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A63 □ ASTM A139
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**The approximate elevation must be referenced to mean sea level (masl) 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 - 3/4 of Aquifer Thickness)

Example: Estimated +2 ft. Water Level Elev. → Bottom Elevation of Well Limit = (2 - 3/4) = -1.5 ft.

**Solid Casing Material:**
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- And compliant with (check one or more): □ ASTM A242 □ Type E □ Type S □ Grade B □ Other
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  □ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  □ PTFE Fluorocarbon Tubing conforming to ASTM D3296
  □ FEP Fluorocarbon Tubing conforming to ASTM D3286

**Open Casing Material:**
- Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A63 □ 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 welds) □ ASTM A312 (mirror welds)
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Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to ensure that your as-built is in compliance with applicable standards.