DATE: 7/20/04

TO: CWRM

PY: ______ DD: ______ YI: ______

CC:
   - CHAIRPERSON
   - DEPUTY LAND
   - DEPUTY WATER
   - ATG/LAND TRANS.
   - BOC
   - CWRM
   - DAR
   - DATA
   - DOBOR
   - DOCARE
   - DOFAW
   - ENG.
   - FISCAL
   - KIRC
   - LAND
   - OCCL
   - PARKS
   - PERSONNEL
   - PIO
   - SHPD

______________________________
Appropriate Action

______________________________
Comment/Recommendation

______________________________
Investigation & Report

______________________________
Prepare reply for my signature

______________________________
Direct reply – copy to me

Remarks:
WELL CONSTRUCTION PERMIT

Luawai Well, Well No. 3487-02

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 construction and testing of Luawai Well (Well No. 3487-02) at Hilo, Hawaii, TMK 1-5-026: 226, 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 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) 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 (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 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: February 27, 2004
Expiration Date: February 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 $1000 per day starting from the permit date of approval.

Permittee's Signature: __________________________ Date: __________
Printed Name: ____________________________
Driller's Signature: ____________________________ Date: __________
Printed Name: ____________________________

Please sign both copies of this permit, return one to the Chairperson, and retain the other for your records.
July 17, 2004

Mr. Peter T. Young, Chairperson
Commission on Water Resource Management
Department of Land & Natural Resources
P.O. Box 621
Honolulu HI 96809

RE: Luawai Well, Well No. 3487-02

Dear Mr. Young;

This is a request to install the permanent pump prior to final pump installation permit issuance in accordance with the Commission's April 15, 1998 Declaratory Ruling No. DEC-ADM98-G5.

Thank You.

Sincerely,

[Signature]

Mr. Patrick St. Laurence
July 17, 2004

Mr. Peter Young, Chairperson
Commission on Water Resource Management
Department of Land & Natural Resources
P.O. Box 621
Honolulu HI 96809

RE: Luawai Well, Well No. 3487-02

Dear Mr. Young;
I wish to inform you that commencement of construction for the above referenced well should begin during week ending 7/31/2004. This letter is in accordance with 13-168-15 Hawaii Administrative Rules as posted on the well construction permit.

Thank You.

Sincerely,
FRED PAGE DRILLING INTERNATIONAL INC.

Fred J. Page
March 3, 2004

Ref: 3487-02.wcp

Mr. Patrick St. Laurence
P.O. Box 10242
Hilo, HI 96721

Dear Mr. St. Laurence:

Well Construction Permit
Luawai Well (Well No. 3487-02)

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.

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,

Peter T. Young
Chairperson

Enclosures

c: Fred Page
WELL CONSTRUCTION PERMIT

Luawai Well, Well No. 3487-02

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 construction and testing of Luawai Well (Well No. 3487-02) at Hilo, Hawaii, TMK 1-5-026: 226, 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.

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   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.

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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: February 27, 2004
Expiration Date: February 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 $1000 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

USGS
Department of Health's Safe Drinking Water, Wastewater, and Clean Water Branches
Hawaii Department of Water Supply
Fred Page
### Commission on Water Resource Management

**Route Slip for Permit Issuance**

<table>
<thead>
<tr>
<th>FROM: RYAN</th>
<th>DATE:</th>
<th>SUSPENSE DATE:</th>
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**TO:**

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**WELL NUMBER:**

| WELL CONSTRUCTION |

**WELL NAME:**

- **Lu'au'i**

**Attachments for Well Construction Permit:**

1. COVER LETTER
2. PERMIT (2x)
3. SDWB
4. WWB
5. CBW
6. HEER
7. LD
8. HP
9. PUMP TEST
10. WCR I FORM

**To be sent to applicant:**

- none received

**For office use only:**

**Attachments for Pump Installation Permit:**

1. COVER LETTER
2. PERMIT (2x)
3. SDWB
4. WWB
5. CBW
6. HEER
7. LD
8. HP
9. WCR II FORM
10. WUR FORM

**For office use only:**

**Glenn's Worksheet**
1. We believe there are no historic properties present because:
   ___ a. intensive cultivation has altered the land
   ___ b. residential development /urbanization has altered the land
   ___ c. previous grubbing/grading has altered land
   ___ d. an acceptable archaeological assessment or inventory survey found no historic properties
   ___ X e. other: Probability of significant sites is low. Please contact SHPD if drilling should encounter a lava tube. (327-3690).

2. This project has already gone through the historic preservation review process.
   ___ a. mitigation has been completed
   ___ b. other:
   ___ X Thus, we believe that “no historic properties will be affected by this undertaking.

Signed Jeanne M. Knapp
Historic Preservation Division Kona
Date 1-15-04
Wastewater Branch
919 Ala Moana Blvd. Room 309
Honolulu, Hawaii 96814-4920
Phone (808) 586-4294 Fax (808) 586-4300

STATE MESSENGER DELIVERY

Date: Jan 9, 2004

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

Attn: Ryan Inata

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

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

Well No. 3487-02 Luawai

8087-09 Halo O Kai

Please find enclosed the application of the above subject project.

STATE MESSENGER DELIVERY
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
Luawai Well (Well No. 3487-02)

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 January 30, 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.

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 [ ] 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 NO RECORDS

Contact Person: Lon Kajiwara
Phone: 586-2297

Signed: Lon Kajiwara
Date: 1-9-2004
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: Jan 7, 2004

To: La Verne Hayamoto
Hawaii District Health Office (Hilo)
Ph (808) 933-0401
Fax (808) 933-0400

From: Lori Kajiwara, Planning/Design Section
Email: Ikkajiwara@oha.health.state.hi.us

Subject: Request for Comments

Do you have any IWS files or records for the following site:

(3) L - S - 26-726

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

File # if applicable: __________ Number of Bedrooms __________
Record Date: ____________________________
Submit Date: ____________________________
Plan Approval Date: ____________________________
Inspection Date: ____________________________
System "Approval for Use" Date: ____________________________

Other: ____________________________________
_____________________________
_____________________________
_____________________________

Please fax site/plot plan if available. Thank you.
December 30, 2003

TO: Honorable Chiyoue 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  
Luawai Well (Well No. 3487-02)

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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 (VAR), Title 11, Chapter 29, Rules Relating to Potable Water Systems, §§11-30-29.

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 initiating such use and routinely monitor the water quality thereafter. However, if future plans for 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 owner shall eliminate cross-connections and develop 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 [Yes] [ ] 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  
Date: JAN 6 2004  
Signed: Bill Wong
December 30, 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

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         Luawai Well (Well No. 3487-02)

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R: ss
   Attachment(s)

RESPONSE:

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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 (1) 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: Dr. Keith Kawaoka
Phone: 587-0255

Signed: Peter T. Young
Date: 1/6/04
To: Ryan Imam
Commission On Water Resource Management
Department of Land and Natural Resources

Via Fax No. (808) 587-0219

From: Aleo Wong
Clean Water Branch

Subject: Well Construction/Pump Installation Permit Applications
Hale O Kai Well (Well No. 3687-09)
Waiaha Well (Well No. 3857-04)
Luawai Well (Well No. 3487-02)

Date: January 7, 2004

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 wastewater, and well purge wastewater. 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 (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.
December 30, 2003

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
Luawai Well (Well No. 3487-02)

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 January 30, 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: The original source of private title was issued prior to statehood in 1959.

Contact Person: Gary Martin Phone: 587-0421

Signed: Gary Martin Date: JAN - 6 2004
### SECTION 1: WELL LOCATION INFORMATION

<table>
<thead>
<tr>
<th>Island</th>
<th>#N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquifer System</td>
<td>#VALUE!</td>
</tr>
<tr>
<td>Aquifer Sector</td>
<td>#VALUE!</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevation at top of casing</td>
<td>131 ft., m.s.l.</td>
</tr>
<tr>
<td>Ground Elevation</td>
<td>130 ft., m.s.l.</td>
</tr>
<tr>
<td>Cement Grout</td>
<td>130 ft.</td>
</tr>
<tr>
<td>Rock Packing</td>
<td>10 ft.</td>
</tr>
<tr>
<td>Hole Diameter</td>
<td>12 in.</td>
</tr>
<tr>
<td>Total Depth</td>
<td>140 ft.</td>
</tr>
<tr>
<td>Estimated Head</td>
<td>130 ft., m.s.l.</td>
</tr>
<tr>
<td>Calculated Aquifer Thickness</td>
<td>5330 ft.</td>
</tr>
<tr>
<td>County Water Supply (Y/N ?)</td>
<td>NO</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Solid Casing</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>Steel</td>
</tr>
<tr>
<td>Designation</td>
<td>ASTM A53</td>
</tr>
<tr>
<td>Length</td>
<td>130 ft.</td>
</tr>
<tr>
<td>Diameter</td>
<td>6 in.</td>
</tr>
<tr>
<td>Wall Thickness</td>
<td>0.25 in.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Casing</th>
<th>Value</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>Designation</td>
<td>ASTM A53</td>
</tr>
<tr>
<td>Length</td>
<td>10 ft.</td>
</tr>
<tr>
<td>Diameter</td>
<td>6 in.</td>
</tr>
<tr>
<td>Wall Thickness</td>
<td>0.25 in.</td>
</tr>
<tr>
<td>Openings</td>
<td>0 sq.in./l.f.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Open Hole</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>0 ft.</td>
</tr>
<tr>
<td>Diameter</td>
<td>0 in.</td>
</tr>
</tbody>
</table>

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

#### Well Depth

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical Thickness of Aquifer</td>
<td>5330 ft.</td>
</tr>
<tr>
<td>1/4 Aquifer Thickness</td>
<td>1333 ft.</td>
</tr>
<tr>
<td>Depth of Well below Sea Level</td>
<td>10 ft.</td>
</tr>
</tbody>
</table>

**Okay** (refer to HWCPIS Section 2.2)

**Okay** (disregard if the well is not basal, deep monitor or salt water)

**Okay** (refer to HWCPIS Section 2.4 c)

**Okay** (disregard this if this is a non-county well)

**Okay** (refer to HWCPIS Section 2.4 d)

**Okay** (refer to HWCPIS Section 2.4 e)

**Okay** (refer to HWCPIS Section 2.6 c)

**Okay** (refer to HWCPIS Section 2.6 d)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth of Grouting</td>
<td>0 ft.</td>
</tr>
<tr>
<td>Depth of Grouting provided</td>
<td>130 ft.</td>
</tr>
<tr>
<td>Thickness of Annular Space</td>
<td>3 in.</td>
</tr>
</tbody>
</table>
**FROM:** RYAN  
**DATE:** 16-Dec-03  
**SUSPENSE DATE:** 23-Dec-03

### TO:  
- BAUER, G.  
- CHING, F.  
- FUJII, N.  
- HARDY, R.  
- HIGA, D.  
- HIRANO, E.  
- ICE, C.  
- IMATA, R.  
- JINNAI, R.  
- KUNIMURA, I.

### INIT:  
-  
-  
-  
- R  
-  
-  
-  
-  
-  
-  

### TO:  
- KOM, A.  
- NAKAMA, L.  
- NAKAMA, D.  
- NISHIoka, L.  
- Ohye, M.  
- SAKODA, E.  
- SUBIA, S.  
- SWANSON, S.  
- UYENO, D.  
- YODA, K.

### INIT:  
-  
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-  
-  
-  
-  
-  

### FOR:  
- Approval  
- Signature  
- Information

### PLEASE:
- 1 Review & Comment  
- Take Action  
- Type Draft acknow letter  
- Type Final, label new file folder  
- File  
- Xerox copies

### WELL NUMBER: 3487.02  
### WELL NAME: Luawai

### 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. **MLS PRINTOUT**  
8. **CONTRACTOR VERIF.**  
9. **DCCA LICENSE SCREEN PRINTOUT**  
10. **ALL INFO FILLED IN**  
11. **BACKGROUND CHECK**  
12. **$25 FEE DEPOSIT SLIP**

### 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>
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<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>
Mr. Patrick St. Laurence
P.O. Box 10242
Hilo, HI 96721

Dear Mr. St. Laurence:

Well Construction/Pump Installation Permit Application for Well No. 3487-02

We acknowledge receipt, on December 9, 2003, of your completed Well Construction/Pump Installation permit application and filing fee for the Luawai Well (Well No. 3487-02). 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,

ERNEST Y.W. LAU
Deputy Director

RI:ss

c: Fred Page
TO:  Honorble 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
         Luawai Well (Well No. 3487-02)

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 January 30, 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.

 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/objects

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  
Luawai Well (Well No. 3487-02)

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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: ______________
December 30, 2003

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
         Luawai Well (Well No. 3487-02)

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programs, plans, and objectives specific to your division. Please respond by returning this
cover memo form by January 30, 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: ____________
<table>
<thead>
<tr>
<th>Taxkey</th>
<th>Subdiv/Condo</th>
<th>Property</th>
<th>Owner/Lessee</th>
<th>Beds/Baths</th>
<th>Land area</th>
<th>Living area</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-1-5-26-226</td>
<td>Hawaiian Paradise Park</td>
<td>F</td>
<td>ST LAURENCE, PATRICK</td>
<td>1.00 ac</td>
<td></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.
LICENSE SCREEN

Please click a link listed below to display the other screen.

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

LIC ID: CT-16653
ACTIVE/INACTIVE: ACTIVE
NAME: FRED PAGE DRILLING INTERNATIONAL INC
TRADE NAME:
STATUS: CURRENT, VALID & IN GOOD STANDING
ENTITY: CORPORATION
BUSINESS CODE:
ORIG LIC DATE: 4/25/91
EXPIRE DATE: 9/30/04
CLASS PREFIX: C
SPECIAL PRIVILEGE:
RESTRICTION:
EDUCATION CODE:
BUSINESS ADDR: 15-3105 HALELO PL PAHOA HI 96778
MAILING ADDR: P O BOX 1434 PAHOA HI 96778

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

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Hawaii State homepage || DCCA || Professional and Vocational Licensing Division
PAY TO THE ORDER OF: DEPARTMENT OF LAND & NATURAL RESOURCES $25.00

TWO-HUNDRED-AND-THREE-DOLLARS 00/00

First Hawaiian Bank
KAMEHAMEHA BRANCH
120 WAIKIKI AVENUE
HILo, HAWAII 96720

FOR VEHICALE PERMIT

11-21-03

PATRICK ST. LAURENCE
PO BOX 10538
Hilo, HI 96720
<table>
<thead>
<tr>
<th>Approved Well No.</th>
<th>Well Name</th>
<th>Applicant</th>
<th>Driller</th>
<th>Type</th>
<th>Well Construction</th>
<th>Pump Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3687-08</td>
<td>Shirley</td>
<td>David and Shirley Jonkman</td>
<td>C-16653</td>
<td>BOTH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3587-08</td>
<td>Santos</td>
<td>Walter T. Berkey</td>
<td>C-16653</td>
<td>BOTH</td>
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</tr>
<tr>
<td>1/5/1993</td>
<td>Luawai</td>
<td>Patrick St. Laurence</td>
<td>C-16653</td>
<td>BOTH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/28/1993</td>
<td>Hwn Par Pk-Olms</td>
<td>Mark G. Olmstead</td>
<td>C-16653</td>
<td>BOTH</td>
<td>1/5/1993</td>
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<tr>
<td>8/7/2002</td>
<td>Aloha Blues</td>
<td>Kim Covilee</td>
<td>C-16653</td>
<td>BOTH</td>
<td>8/19/2002</td>
<td></td>
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<tr>
<td>7/21/2003</td>
<td>Kiko 1</td>
<td>Carlos Parisi</td>
<td>C-16653</td>
<td>BOTH</td>
<td>7/31/2003</td>
<td>8/12/2003</td>
</tr>
</tbody>
</table>
### APPLICANT INFORMATION:
- **Contact Person:** Same
- **Address:** P.O. Box 10242, Hilo HI 96721

### WELL & PUMP INFORMATION:
- **Island:** Hawaii
- **Address:** P.O. Box 10242, Hilo HI 96721
- **Tax Map Key:** 1-5-26-026

### PROPOSED WORK:
- **Type:** Install New Pump
- **Comment:** State Well No.

### CONSTRUCTION:
- **Method:** Drilled
- **Location:** Leilani

### PROPOSED PUMPING RATE:
- **Rate:** 20 gallons per minute

### PROPOSED USE:
- **Type:** Municipal (including hotels, stores, etc.)
- **Comment:** Domestic (individual, noncommercial water system)

### PROPOSED AMOUNT OF WITHDRAWAL:
- **Amount:** 1500 gallons per day

### OTHER IMPORTANT INFORMATION:
- **Legal Requirements:**
  - Conservation District Use Permit
  - Environmental Impact Statement (EIS)
  - Special Management Area Permit (SMAP)

### REMARKS, EXPLANATIONS:

### Signature Details:
- **Well Owner:** Patrick St. Lawrence
- **Landowner:** Patrick St. Lawrence
- **Contractor:** Fred Page Drilling International Inc.

### For Official Use Only:
- **Date:** 11/13/03
- **State Well No.:**

---

For additional information and updates to this application form, visit [www.state.hi.us/dlnr/cwrm](http://www.state.hi.us/dlnr/cwrm).
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Elevation at top of casing: 131 ft, msl*
Minimum of 2' Radius & 4" Thick Concrete Pad (to contain benches surveyed to nearest 0.01 ft.)
Ground Elevation: 130 ft, msl*

Cement Grout: 130 ft
(min. 70% of distance from ground elevation to top of water surface or 500 ft. whichever is less.)

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

Rock or Gravel Packing:
10 ft.
Material:
X Crushed Basalt
□ Rounded Gravel

Total Depth 149 ft

Estimated Water Level Elevation: 130 ft, msl*

Solid Casing: (≥ 90% x (Ground Elev - Water Level Elev))
Total Length: 130 ft.
Nominal Diameter: 6 in.
Wall Thickness: * 250 in.
Bottom Elevation: 140 ft, msl*

Open Casing:
□ Perforated
□ Screen
Total Length: 10 ft.
Nominal Diameter: 6 in.
Wall Thickness: * 250 in.
Bottom Elevation: 130 ft, msl*

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 = \( \frac{1}{4} \times (\text{Water Elevation} - \text{Elevation}) \)
Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = \( \frac{2}{4} \times (130 - 131) \) = -18.5 ft.

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

Open Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more): □ ASTM A242 □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (check one): □ ASTM A409 (production wells) □ ASTM A312 (monitor wells)
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PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one): □ Schedule 40 □ Schedule 80 □ Schedule 120
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