<table>
<thead>
<tr>
<th>Taxkey</th>
<th>Subdiv/Condo Tnr</th>
<th>Property Address</th>
<th>Owner/Lessee</th>
<th>Beds</th>
<th>Baths</th>
<th>Land area</th>
<th>Living area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5-6-6-1</td>
<td>Kahuku</td>
<td>G 56-020 KAM HWY CITY &amp; COUNTY OF HONOLULU</td>
<td>0 0</td>
<td>8.19 ac</td>
<td></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.
Laie Deep Monitor Well (Well No. 3956-08)

SCALE: 1" = 2000'

ISLAND OF OAHU
TOTAL H4R UNITS
HYDROLOGIC UNITS
SUMMARY

Well Location
August 2, 2004

Mr. Clifford Jamile
Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, HI 96843

Dear Mr. Jamile:

Well Completion Report for Well No. 3956-08

We received your Well Completion Report Part I for the Laie Deep Monitor Well (Well No. 3956-08) on July 28, 2004 and acknowledge that it is complete.

If you have any questions, please contact Ryan Imata of the Commission staff at

Sincerely,

YVONNE Y. IZU
Deputy Director

RI:ss
MEMO and ROUTE SLIP

WCR 1 Check for Well No. 3956-08 (survey to regulation memo)

07/30/04

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

   **Yes** | **No** | **If no, describe deficiency**
   --- | --- | ---
   Step-Drawdown Test:
   - followed WCPI Stds
   - analysis attached
   - proposed pump cap o.k.
   - Aquifer Pump Test:
   - followed WCPI Stds
   - T & S analysis attached
   - Well Interference:
   - estimated Steady-State drawdown at 1-mile radius is __________ ft.
   - analysis attached
   - Stream Surface Water Impacted:
   - Geology Code for Well Index: **726**
   - [If yes, identify most probable stream]

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

   **Yes** | **No** | **If no, describe deficiency**
   --- | --- | ---
   data complete
   - followed Special Cond & elevations
   - well database updated
   - Latitude | Longitude
   NAD27 21 39 43 | 157 56 17
   NAD83 21 39 31 | 157 56 07

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

ATTACHMENTS FOR PUMP INSTALLATION PERMIT:
1 COVER LETTER
2 PERMIT (2x)
3 DOH COMMENTS
4 LAND DIV. COMMENTS
5 WCR 2 FORM
6 WUR FORM

[To be sent to applicant]

4. Roy __________ (initial) check

5. Subia __________ (initial) finalize w/electronic signature
6. Charley/Lenore/Ryan File
## WELL COMPLETION REPORT - PART I

### Well Construction

**State of Hawaii**

COMMISSION ON WATER RESOURCE MANAGEMENT

Department of Land and Natural Resources

For Official Use Only: 

[Stamp: RECEIVED]

**WELL COMPLETION REPORT - PART I**

**Well Name:** Laie Deep Monitor Well  
**Island:** Oahu

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

1. **State Well No.:** 3956-08  
   **Well Name:** Laie Deep Monitor Well  
   **Island:** Oahu

2. **Address:** 56-020 Kamehameha Hwy  
   **Tax Map Key:** 5-6-06:001

3. **Drilling Company:** Valley Well Drilling

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

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

5. **Date Well Construction (drilled, cased, grouted) completed:** 2/24/04  
   **Attach Driller's Log (7/26/99 DL Form)**

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

7. **Initial water-level encountered 11 ft. below ground  
   **Date and time of measurement:** 3/30/04 1100

8. **Step-Drawdown Test completed?**
   - [X] Yes
   - [ ] No

   **Attach Step-Drawdown Test form (12/17/97 SDPTD Form)**

9. **Constant Rate Aquifer Test completed?**
   - [X] Yes
   - [ ] No

   **Attach Constant Rate Aquifer Test form (12/17/97 CRPTD Form)**

10. **Parameters prior to pump test:**
    - **Water-level:** ft. above msl  
      **Date and time of measurement:**
    - **Chloride:** ppm  
      **Date and time of sampling:**
    - **Temperature:** °F  
      **Date and time of measurement:**

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

12. **Attach plot plan and surveyor's stamped elevation report.**

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

14. **Remarks:**
   - Bar cap lock

---

**Licensed Driller** (print) Valley Well Drilling  
**C-57 Lic. No.:** 21358  
**Signature:** ______________________  
**Date:** 5/26/04

**Surveyor** (print) Towill Shiegoka & Associates  
**L.P.L.S. Lic. No.:** 5075  
**Signature:** ______________________  
**Date:** 3/24/04

**Permittee** (print) ______________________  
**Signature:** ______________________  
**Date:** ______________________
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

- Elevation at top of casing: 25.29 ft., msl
- Hole Diameter: 16 in.
- Minimum of 2' Radius & 4" Thick Concrete Pad
- Ground Elevation: 19.15 ft., msl
- Cement Grout: 220 ft.
- Water Level Elevation: +14.29 ft., msl

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
- Stainless Steel: compliant with (check one or more): □ ASTM A242 □ Type E □ Type S □ Grade B □ Other
- ABS Plastic: compliant with ASTM F480 and ASTM D1527: (check one) □ Schedule 40 □ Schedule 80
- PVC Plastic: compliant with 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
- Stainless Steel: compliant with (check one or more): □ ASTM A242 □ Type E □ Type S □ Grade B □ Other
- ABS Plastic: compliant with ASTM F480 and ASTM D1527: (check one) □ Schedule 40 □ Schedule 80
- PVC Plastic: compliant with 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

**INSTALLATION STANDARDS**
- Please refer to the Hawaii Well Construction and Pump Installation Standards to ensure that your as-built is in compliance with applicable standards.

**AS-BUILT**

- Elevation at top of casing: 25.29 ft., msl
- Hole Diameter: 16 in.
- Minimum of 2' Radius & 4" Thick Concrete Pad
- Ground Elevation: 19.15 ft., msl
- Cement Grout: 220 ft.
- Water Level Elevation: +14.29 ft., msl

**Open Casing:**
- □ Perforated □ Screen
  - Length: _________ ft.
  - Nominal Diameter: _________ in.
  - Wall Thickness: _________ in.
  - Bottom Elevation: _________ ft., msl

**Open Hole:**
- Length: _________ 640 ft.
- Diameter: _________ 8 in.
- Bottom Elevation: _________ -840.85 ft., msl

*msl = mean sea level

3-3906-08 L A I E D E E P
WELL NUMBER: 3956-08  Laie Deep Monitor Well
Drilling Co: Valley Well Drilling
DRILLER'S LOG (7126/99 DL Form)

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, etc.</th>
<th>Dates</th>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, etc.</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 36</td>
<td>mob, drill pilot hole</td>
<td>10/1/3</td>
<td>540 to 580</td>
<td>drill 8&quot; open hole</td>
<td>11/3/3</td>
</tr>
<tr>
<td>0 to 36</td>
<td>rem 22&quot; hole set</td>
<td>10/8/3</td>
<td>580 to 595</td>
<td></td>
<td>11/6/3</td>
</tr>
<tr>
<td></td>
<td>16&quot; conductor</td>
<td>10/9/3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>grout, prep RC</td>
<td>10/10/3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 to 180</td>
<td>drill 10&quot; pilot</td>
<td>10/14/3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>180 to 220</td>
<td>complete pilot</td>
<td>10/15/3</td>
<td>620 to 628</td>
<td>trip in hole</td>
<td>11/21/3</td>
</tr>
<tr>
<td>100 to 140</td>
<td>rem. hard basalt</td>
<td>10/10/3</td>
<td>628 to 637</td>
<td>drill 8&quot; open</td>
<td>11/20/3</td>
</tr>
<tr>
<td>140 to 200</td>
<td>rem. 16&quot;</td>
<td>10/15/3</td>
<td>220 to 460</td>
<td>rem. 10&quot; hole</td>
<td>2/2/4</td>
</tr>
<tr>
<td>200 to 220</td>
<td>set 140' 10&quot; pipe</td>
<td>10/18/3</td>
<td>460 to 560</td>
<td></td>
<td>2/3/4</td>
</tr>
<tr>
<td></td>
<td>set 80' 10&quot; pipe</td>
<td>10/19/3</td>
<td>560 to 600</td>
<td>Trip out</td>
<td>2/4/4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>grout 10&quot; pipe</td>
<td>10/20/3</td>
<td>600 to 637</td>
<td>trip in hole</td>
<td>2/5/4</td>
</tr>
<tr>
<td></td>
<td>grout 10&quot; pipe</td>
<td>10/23/3</td>
<td>637 to 660</td>
<td></td>
<td>2/6/4</td>
</tr>
<tr>
<td>220 to 320</td>
<td>drill 8&quot; open hole</td>
<td>10/27/3</td>
<td>660 to 720</td>
<td></td>
<td>2/6/4</td>
</tr>
<tr>
<td>320 to 420</td>
<td>&quot;</td>
<td>10/28/3</td>
<td>720 to 780</td>
<td></td>
<td>2/19/4</td>
</tr>
<tr>
<td>420 to 460</td>
<td>&quot;</td>
<td>10/29/3</td>
<td>780 to 817</td>
<td></td>
<td>2/10/4</td>
</tr>
<tr>
<td>460 to 480</td>
<td>&quot;</td>
<td>10/30/3</td>
<td>797 to 830</td>
<td>&quot;</td>
<td>2/18/4</td>
</tr>
<tr>
<td>480 to 500</td>
<td>&quot;</td>
<td>10/31/3</td>
<td>830 to 860</td>
<td>&quot;</td>
<td>2/19/4</td>
</tr>
<tr>
<td>500 to 540</td>
<td>&quot;</td>
<td>11/4/3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

04 JUL 28 P3:29
Commission on Water Resource Management  
Department of Land and Natural Resources  
P.O. Box 621  
Honolulu, Hawaii 96809

Commissioners,

Included for your use is the Well Completion Report (Part I) for the Laie Deep Monitor Well No. 3956-08 which was completed earlier this year. Should there be any questions, please contact Darrell C. W. Wong at the Water Resources Unit, phone: [redacted] E-mail: dwong@hbws.org.

Thank You,

Darrell C. W. Wong
Laie Deep Monitor Well
Plot Plan

Well Location
21° 39' 31"
157° 56' 07"
(NAD 83)

City and County of Honolulu
Laie Corporation Yard

City and County
Convenience Center
Valley Well Drilling
91-235 A Ohana Street
Kapolei, Hawaii 96707

Gentlemen:

SUBJECT: WELL ELEVATION
Laie Deep Monitor Well
At Laie, Koolauloa, Oahu, Hawaii
TMK: (1) 5-6-6001

The undersign hereby certifies that the following are the results from our survey of the subject Well on March 16, 2004:

Well Elevation:

Top of casing: 25.29 ft.
Top of pad: 23.15 ft.

The elevations listed are based on Reference Mark RM 177, as shown on FIRM Panel Number 15003C0045 E, with a listed elevation of 12.51 feet (NGVD 1929).

Well Location:

21°39'31" N (NAD 83)
157°56'07" W

TOWILL, SHIGEOKA & ASSOCIATES, INC.

Robert K.Y. Lee
Licensed Professional Land Surveyor
Certificate Number 5075
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR PERMIT ISSUANCE

FROM: RYAN
DATE: 3/19
SUSPENSE DATE:

TO: ANAKALEA, P.
INIT: E.
TO: LATHIAS, T.
INIT: L.
FOR: Approval

TO: BAUER, G.
INIT:
TO: NAKAMA, L.
INIT:
FOR: Signature

TO: CHING, F.
INIT:
TO: OHYE, M.
INIT:
FOR: Information

TO: DANBARA, S.
INIT:
TO: SAKODA, E.
INIT:
FOR:

TO: FUJI, N.
INIT:
TO: SAKANO, D.
INIT:
FOR:

TO: GOODING, K.
INIT:
TO: THIASS, T.
INIT:
FOR:

TO: HARDY, R.
INIT:
TO: SUBIA, S.
INIT:
FOR:

TO: HIGA, D.
INIT:
TO: SWANSON, S.
INIT:
FOR:

TO: ICE, C.
INIT:
TO: UYENO, D.
INIT:
FOR:

TO: IMATA, R.
INIT:
TO: YODA, K.
INIT:
FOR:

TO: KUNIMURA, I.
INIT:
TO: YOSHINAGA, M.
INIT:
FOR:

ATTACHMENTS FOR WELL CONSTRUCTION PERMIT:
1 COVER LETTER
2 PERMIT (2x)
3 SDWBI
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

ATTACHMENTS FOR PUMP INSTALLATION PERMIT:
1 COVER LETTER
2 PERMIT (2x)
3 SDWBI
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

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

WELL NUMBER 3052-08
WELL NAME Lai'e Deep Monitor Well
March 27, 2003

Ref: 3956-08.wcp

Mr. Clifford Jamile
Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, HI 96843

Dear Mr. Jamile:

Well Construction Permit
Laie Deep Monitor Well (Well No. 3956-08)

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

Special Conditions

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

2. Standard Conditions 2, 3 and 7e are waived.

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 CWRM of the Commission staff at 587- or toll-free at 974-4000 (Hawaii), (Kauai), (Maui), or (Lanai & Molokai), extension 7.

Sincerely,

[Signature]

Peter T. Young
Chairperson

Enclosures
WELL CONSTRUCTION PERMIT
Laei Deep Monitor Well, Well No. 3956-08

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 Laei Deep Monitor Well (Well No. 3956-08) at 58-020 Kam Hwy., Oahu, TMK 5-6-6:1, 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 1¼-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 bedrock ground water, the depth of the well may not exceed one-fourth (1/4) of the theoretical thickness (41 times initial head) of the bedrock 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 §13-168-9.1 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: March 21, 2003
Expiration Date: March 21, 2005

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 C: USGS Department of Health's Safe Drinking Water, Wastewater, and Clean Water Branches
HAWAII HISTORIC PRESERVATION
DIVISION REVIEW

Log #: 2003.0016
Doc #: 0303EJ11

Applicant/Agency: Dean A. Nakano
Acting Deputy Director
Address: DLNR/Commission on Water Resource Management

SUBJECT: Chapter 6E-8 Historic Preservation Review Well Construction Permit
Application Laie Deep Monitor Well (Well No. 3956-08)

Ahupua‘a: La‘ie
District, Island: Ko‘olauloa, O‘ahu
TMK: (1) 5-6-006:001

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 the land
   d) an acceptable archaeological assessment or inventory survey found no historic properties
   ✓ e) other: In the unlikely event that historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity must stop and the State Historic Preservation division must be contacted at [redacted]

2. This project has already gone through the historic preservation review process, and mitigation has been completed.

 ✓ Thus, we believe that “no historic properties will be affected” by this undertaking

Staff: Elaine H. Jourdane  Date: 3/17/03
Title: Elaine H. Jourdane, Assistant Archaeologist, O‘ahu Island  Phone [redacted]
March 5, 2003

TO: Dede Mamiya, Administrator
Land Division

FROM: Dean A. Nakano, Acting Deputy Director
Commission on Water Resource Management

SUBJECT: Well Construction Permit Application
Laie Deep Monitor Well (Well No. 3956-08)

Transmitted for your review and comment is a copy of the captioned Well Construction 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 March 28, 2003. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

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

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

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

[ ] No objections

[X] Other comments: Original source of private title is a Land Commission Award issued between 1845 and 1855.

Contact Person: Gary Martin
Phone: [Phone Number]

Signed: [Signature]
Date: MAR 10 2003
March 5, 2003

TO: Honorable Chiyome L. Fukino, M.D., Director
    Department of Health
    Attention: Dennis Tulang, 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 Permit Application
          Laie Deep Monitor Well (Well No. 3956-08)

Transmitted for your review and comment is a copy of the captioned Well Construction 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 March 28, 2003.** If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

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 16 service connections) and if the well water is used for drinking, the private owner should test for bacteriological and chemical presence before initiating such use and routinely monitor the water quality thereafter. However, if future planned use from this source increases to meet the public water system definition then Director of Health approval is required prior to implementation.

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

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

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

[ ] An NPDES permit is required.

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

[ ] No comments/objections

Contact Person: **Bill Wong**
Phone: [redacted]

Signed: **William Wong**
Date: 03/12/03
March 5, 2003

Honorable Chiyoue L. Fukino, M.D., Director
Department of Health
Attention: Dennis Tulang, 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 Permit Application
Laie Deep Monitor Well (Well No. 3966-08)

Transmitted for your review and comment is a copy of the captioned Well Construction 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 March 28, 2003. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

RT: 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 shall receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-20.

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 using such water 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 the potable and non-potable purposes in a single system, the user shall eliminate cross-connections and backflow connections by physically separating potable and non-potable systems by an air gap or approved backflow preventer, and by clearly labeling all non-potable supplies 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 [item 1] 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: Dr. Keith Kawaoka
Phone: [Redacted]

Signed: [Redacted]
Date: 3/7/03

Fax to: Commission on Water Resources Mgt. 587-0219
Date: March 12, 2003

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

Attn: Ryan Imoto

From: Lori Kajiwara
   Planning & Design Section
   Email: Lkajiwara@eha.health.state.hi.us

Subject: Well Construction/Pump Installation Permit/Water Use Permit for
         Well No. 8956-08
         Claire Deep Monitoring Well

Please find enclosed the application of the above subject project.
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.

Tax Map Key number: 5-6-6-1
Address: 56-020 Kam Hwy
Septic Tank File #: 2652
Applicant Name: CFC Lai'e Corp yard

Submit Plan Date: 6-6-1994
Plan Approval Date: 9-19-1994
Inspection Date: 10-21-1994
System Approved for Use Date: 

System / Disposal Via: Septic Tank / Trench
Capacity: 3 BR, 850 gallons
# of Bedrooms or Other: 3 BR
Designed By: TImata

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

[ ] Mr. Dane Hiromasa at the Kealakekua Health Center, Kona at (808)0322-1507
[ ] Mr. Jerry Nunogawa at the Hawaii District Health Office, Hilo at
[ ] Mr. Joe Tateyama at the Kauai District Health Office at
[ ] Mr. Roland Tejano at the Maui District Health Office at

cesspool faxes.wpd sam rev January 8, 2003
March 5, 2003

TO: Honorable Chiyome L. Fukino, M.D., Director
   Department of Health
   Attention: Dennis Tulang, 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 Permit Application
   Laie Deep Monitor Well (Well No. 3956-08)

Transmitted for your review and comment is a copy of the captioned Well Construction 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 March 28, 2003. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

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 the public water system definition then Director of Health approval is required prior to implementation.

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

An NPDES permit is required.

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

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

No comments/objections

Contact Person: Lori N. Kajiwara

Phone: [Redacted]

Date: 3-12-2003
March 5, 2003

TO: 
Honorable Chiyoue L. Fukino, M.D., Director 
Department of Health 
Attention: 
Dennis Tulang, 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 Permit Application 
Laie Deep Monitor Well (Well No. 3956-08)

Transmitted for your review and comment is a copy of the captioned Well Construction 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 March 15. 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.

R: ss
Attachment(s)

RESPONSE:

[ ] This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or 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 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, the public water system definition can be considered for 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 nipples 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 is 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: 
Alec Wong

Phone: 

Signed: 
Alec Wong

Date: 3/14/03

OBA899
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 [redacted] or by fax at [redacted].

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/er
**SECTION 1: WELL LOCATION INFORMATION**

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

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

<table>
<thead>
<tr>
<th>Elevation at top of casing</th>
<th>22 ft., m.s.l.</th>
<th>Solid Casing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Material</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Designation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Length</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diameter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wall Thickness</td>
</tr>
<tr>
<td>Ground Elevation</td>
<td>20 ft., m.s.l.</td>
<td>Casing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Material</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Designation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Length</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diameter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wall Thickness</td>
</tr>
<tr>
<td>Rock Packing</td>
<td>0 ft.</td>
<td>Openings</td>
</tr>
<tr>
<td>Hole Diameter</td>
<td>14 in.</td>
<td></td>
</tr>
<tr>
<td>Total Depth</td>
<td>860 ft.</td>
<td></td>
</tr>
<tr>
<td>Estimated Head</td>
<td>13 ft., m.s.l.</td>
<td></td>
</tr>
<tr>
<td>Calculated Aquifer Thickness</td>
<td>533 ft.</td>
<td></td>
</tr>
<tr>
<td>County Water Supply (Y/N ?)</td>
<td>YES</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Well Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical Thickness of Aquifer</td>
</tr>
<tr>
<td>1/4 Aquifer Thickness</td>
</tr>
<tr>
<td>Depth of Well below Sea Level</td>
</tr>
<tr>
<td><strong>Well Casing</strong></td>
</tr>
<tr>
<td>Minimum Wall Thickness Material</td>
</tr>
<tr>
<td>County or Non-County</td>
</tr>
<tr>
<td>Minimum Thickness per standards</td>
</tr>
<tr>
<td>Wall Thickness Provided</td>
</tr>
<tr>
<td>Minimum Length of Solid Casing Length of ground to top of aquifer</td>
</tr>
<tr>
<td>90% of ground to top of aquifer</td>
</tr>
<tr>
<td>Length of solid casing Provided</td>
</tr>
<tr>
<td>Casing Material</td>
</tr>
<tr>
<td>Annular Space</td>
</tr>
<tr>
<td>Calculated Depth of Grouting</td>
</tr>
<tr>
<td>Depth of Grouting provided</td>
</tr>
<tr>
<td>Thickness of Annular Space</td>
</tr>
</tbody>
</table>

- **Well Depth**
  - Theoretical Thickness of Aquifer: 533 ft.
  - 1/4 Aquifer Thickness: 133.3 ft.
  - Depth of Well below Sea Level: 840 ft.
- **Well Casing**
  - Minimum Wall Thickness Material: #VALUE!
  - County or Non-County: county
  - Minimum Thickness per standards: #VALUE! in.
  - Wall Thickness Provided: 0.375 in.
  - Minimum Length of Solid Casing: 0.375 ft.
  - Length of solid casing Provided: 220 ft.
  - Casing Material: #VALUE!
- **Annular Space**
  - Calculated Depth of Grouting: 4.9 ft.
  - Depth of Grouting provided: 220 ft.
  - Thickness of Annular Space: #VALUE!

---

*Too deep (refer to HWCPIS Section 2.2)*

*Disregard if the well is not basal*

*Okay (refer to HWCPIS Section 2.6)*
March 5, 2003

Mr. Clifford Jamile  
Manager and Chief Engineer  
Board of Water Supply  
City and County of Honolulu  
630 South Beretania Street  
Honolulu, HI 96843

Attn: Glenn Oyama

Dear Mr. Jamile:

Well Construction Permit Application for Well No. 3956-08

We acknowledge receipt, on February 28, 2003, of your completed Well Construction permit application for the Laie Deep Monitor Well (Well No. 3956-08). You can expect your application to be processed within ninety (90) days from this date.

If you have any questions about your permit application, please contact Ryan Imata of the Commission staff at [phone number removed].

Sincerely,

DEAN A. NAKANO  
Acting Deputy Director

RI:ss
March 5, 2003

TO: Honorable Chiyome L. Fukino, M.D., Director
   Department of Health
   Attention: Dennis Tulang, 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 Permit Application
Laie Deep Monitor Well (Well No. 3956-08)

Transmitted for your review and comment is a copy of the captioned Well Construction 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 March 28, 2003. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

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, §11-29.

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

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

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

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

An NPDES permit is required.

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

No comments/objections

Contact Person: ___________________________ Phone: ___________________________

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

FROM: Dean A. Nakano, Acting Deputy Director  
Commission on Water Resource Management  

SUBJECT: Well Construction Permit Application  
Laie Deep Monitor Well (Well No. 3956-08)  

March 5, 2003  

Transmitted for your review and comment is a copy of the captioned Well Construction 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 March 28, 2003. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.  

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

RESPONSE:  

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

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

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

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

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

[ ] No objections  

[ ] Other comments:  

Contact Person: ____________________________ Phone: ______________  

Signed: ____________________________ Date: ______________
TO:  Holly McEldowney, Acting Administrator  
Historic Preservation

FROM:  Dean A. Nakano, Acting Deputy Director  
Commission on Water Resource Management

SUBJECT:  Well Construction Permit Application  
Laie Deep Monitor Well (Well No. 3956-08)

March 5, 2003

Transmitted for your review and comment is a copy of the captioned Well Construction 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 March 28, 2003. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

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

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: ________________
LETTER OF TRANSMITTAL

Date: 2/14/03  Job No. 02-002A
Re: Laie Deep Monitor Well - Well Construction Application

TO: CWRM
P.O. Box 621
Honolulu, Hawaii 96709

ATT: Ryan Imata

GENTLEMEN:

WE ARE SENDING YOU  X  Attached  Under separate cover via

☐ Shop Drawings  ☐ Prints  ☐ Plans  ☐ Samples  ☐ Specifications
☐ Copy of letter  ☐ Change Order  ☒ Well Construction Permit Application

COPIES  DATE  NO.  DESCRIPTION

 THESE ARE TRANSMITTED as checked below:

☐ For approval  ☐ Approved as submitted  ☐ Resubmit ___ copies for approval
☐ For your use  ☐ Approved as noted  ☐ Submit ___ copies for distribution
☐ As requested  ☐ Returned for corrections  ☐ Return ___ corrected prints
☐ For review and comment  ☒ For your review and action
☐ For bids due ___________________________  ☐ Prints returned after loan to us

REMARKS: 

COPY TO: ___________________________  SIGNED: ___________________________

(808) ____ (office)
(808) ____ (fax)

Hydrologist-Geologist

03 FEB 19
APPLICATION FOR PERMIT
For Official Use Only:

RECEIVED:
03 FEB 19  P3: 08

COMMISSION ON WATER RESOURCE MANAGEMENT
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

☐ Well Construction and/or ☐ Pump Installation

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 5 copies and a non-refundable fee of $25.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at (808) 681-8040.
For further information and updates to this application form, visit http://www.state.hi.us/dlnr/cwrm.

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

1. (a) ☐ WELL OWNER: Board of Water Supply Contact Person: Glenn Oyama Phone:
Mailing Address: 630 S. Beretania St., Honolulu, HI 96843
Fax: 550-5001  E-mail: goyama@hbws.org
(b) ☐ LAND OWNER: City & County of Honolulu Contact Person: L. Leopardi Phone:
Mailing Address: 1000 Ulufaia St., Suite 215, Kapolei, HI 96707
Fax:
E-mail: l.leopardi@co.honolulu.hi.us
(c) ☐ CONTRACTOR: To be determined
Contact Person: Phone:
Mailing Address:
Fax:
E-mail:
Lic #:
(circle one: C-57, C-57a, or A)

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

2. WELL NAME: Laie Deep Monitor Well Island: Oahu
Address 56-020 Kam Hwy.
Tax Map Key: Zone 6  Sec 6  Plat 01
Attach: (a) portion of a 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and indicate the name of the quad map (b) a property tax map, showing well location referenced to established property boundaries

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

*State Well No.: (if unknown, please call Commission at)

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

5. PROPOSED PUMPING RATE: 0 gallons per minute

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

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

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS: If required, these permits must be obtained before the Commission can legally issue a permit.

Environmental Impact Statement (EIS) or Environmental Assessment (EA) To determine if an EIS or EA is necessary, call OEQC at ☐ Required ☐ Not Required
If required, date published in OEQC bulletin

Normal Management Area Permit (SMA)/To determine if an SMA is necessary: on Oahu, call ☐ Required ☐ Not Required
Hawaii, call ☐ Required ☐ Not Required
for Maui county, call ☐ Required ☐ Not Required

9. REMARKS, EXPLANATIONS:

Recheck well to be salinity profiled quarterly to gain
water use data on the local aquifer.

NOTE: Signing below indicates the signatories understand and swear that the information provided on this application is accurate and true to the best of their knowledge. Further, the signatories understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 90 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity; 5) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $100/day.

Well Owner Board of Water Supply Landowner C&C of Honolulu Contractor To be determined
Signature (print legibly) Signature Signature
Date 3-3-03 Date 2-12-05

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

WCPIPA Form 8/21/01
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Hole Diameter: 14 in.

Elevation at top of casing 22 ft., msl*

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

Ground Elevation: 20 ft., msl*

Cement Grout: 220 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:

Material: 8 ft.

Total Depth: 660 ft.

Solid Casing: (≥ 90% x (Ground Elevation - Water Level Elev))

Total Length: 220 ft.
Nominal Diameter: 8 in.
Wall Thickness: 0.375 in.
Bottom Elevation: -200 ft., msl*

Open Casing: □ Perforated □ Screen

Total Length: 640 ft.
Nominal Diameter: 7.5 in.
Wall Thickness: □ in.
Bottom Elevation: -840 ft., msl*

Open Hole:

Length: 640 ft.
Diameter: 7.5 in.
Bottom Elevation: -840 ft., msl*

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elevation - 41 ft. Water Level Elev.)/4

Example: Estimated + 2 ft. Water Level Elev. — Bottom Elevation of Well Limit = (2 - 41(ft.))/4 = -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 F490 and (ASTM D1785 or ASTM D2241): (check one):
□ Schedule 40 □ Schedule 80 □ Schedule 120
Thermoset Plastic: (check one):
□ Filament Wound Resin Pipe conforming to ASTM D2996
□ Centrifugally Cast Resin Pipe conforming to ASTM D2997
□ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3296
□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
□ PTFE Fluorocarbon Tubing conforming to ASTM D3296
□ FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more): □ ASTM A242 □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (check one):
□ ASTM A409 (production wells) □ ASTM A312 (monitor wells)
ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one) □ Schedule 40 □ Schedule 80
PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one):
□ Schedule 40 □ Schedule 80 □ Schedule 120
Thermoset Plastic: (check one):
□ Filament Wound Resin Pipe conforming to ASTM D2996
□ Centrifugally Cast Resin Pipe conforming to ASTM D2997
□ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3296
□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
□ PTFE Fluorocarbon Tubing conforming to ASTM D3296
□ FEP Fluorocarbon Tubing conforming to ASTM D3296

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

Please refer to HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to ensure that your as-built is in compliance with applicable standards.
Instructions for Item 8 – Legal Requirements

If necessary, the items listed in Item 8 must be obtained prior to the Commission's issuance of either Well Construction Permits or Pump Installation Permits. If the items listed are required but not obtained, and the permit is issued, your permit may be suspended and work shall cease until the item in question is brought into compliance. Any work done while the permit is in suspension is subject to fines of up to $1000 per day, so it is important that these items be clarified prior to applying for a permit.

- The CDUP is a Conservation District Use Permit. This must be obtained if the parcel in question is located in a Conservation District. This permit is obtained through the Department of Land and Natural Resources' Land Division. To find out if this permit is necessary, please call the Land Division at [phone number].

- The SMAP is a Special Management Area Permit. An SMAP must be obtained if the parcel in question is located within a Special Management Area. This permit is obtained from the County in which the work is being done. For the City and County of Honolulu, please call the Land Use Permits Division of the Department of Planning and Permitting at [phone number]. For Hawaii County, please call the Planning Department at [phone number]. For Maui County, please call the planner on call at the Planning Department at [phone number]. For Kauai County, please call the Planning Department at [phone number].

- The EIS and EA are Environmental Impact Statements and Environmental Assessments. These are regulated by the Office of Environmental Quality Control (OEQC). To determine whether these items are necessary, please call the OEQC at [phone number].

- Other permits shall be determined on an as needed basis.
LETTER OF TRANSMITTAL

Date: 2/25/03

Job No. 

Re: Laie Deep Monitor Well - Well Construction Permit Application (attachments)

TO: State of Hawaii
Department of Land and Natural Resources
Commission On Water Resource Management
P.O. Box 621
Honolulu, Hawaii 96809

ATT: Ryan Imata

GENTLEMEN:

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

Shop Drawings Prints Plans Samples Specifications
Copy of letter Change Order Well Construction Permit Application Attachments

COPIES | DATE | NO. | DESCRIPTION
--- | --- | --- | ---

THESE ARE TRANSMITTED as checked below:

X For approval Approved as submitted Resubmit ___ copies for approval
For your use Approved as noted Submit ___ copies for distribution
As requested Returned for corrections Return ___ corrected prints
For review and comment
For bids due Prints returned after loan to us

REMARKS: Hi Ryan. Per your e-mail message. Sorry for the oversight.

COPY TO: SIGNED: 

Hydrologist-Geologist
KAHUKU QUADRANGLE