Ryan

Enclosed are the well reports with pump installation date. We are still working on getting the well depth and pump depth figures for your (accurate data).

Thanks

Does this couple 1C22 submitted on 4/3/02?
<table>
<thead>
<tr>
<th><strong>1. State Well No.:</strong></th>
<th>2979-06</th>
<th><strong>2. Well Name:</strong></th>
<th>Vakacionland &amp; 10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3. Address:</strong></td>
<td>Kameha Road</td>
<td><strong>4. Island:</strong></td>
<td>Hawaii</td>
</tr>
<tr>
<td><strong>4. Date Pump Installed:</strong></td>
<td>May 5, 2002</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5. PUMP INFORMATION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pump Type, Make, Serial No.:</strong></td>
<td>Hayes Sub 12075-23</td>
<td><strong>Rated Capacity:</strong></td>
<td>12 gpm</td>
</tr>
<tr>
<td><strong>Motor Type, H.P., Voltage, rpm:</strong></td>
<td>Franklin 3/4 HP 230V 3450 RPM</td>
<td><strong>Type of flow meter:</strong></td>
<td>Pressure which measures in GPM</td>
</tr>
<tr>
<td><strong>Method of flow measurement:</strong></td>
<td>Same</td>
<td>Make</td>
<td>Size</td>
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<td><strong>6. Other remarks/comments:</strong></td>
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<td><strong>7. Fill in the as-built section on the other side of this sheet:</strong></td>
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<td><strong>8. Other remarks/comments:</strong></td>
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<tr>
<td><strong>Pump Installation Contractor (print):</strong></td>
<td>Turner Drilling &amp; Pump</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lic. No.:</strong></td>
<td>22597</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Signature:</strong></td>
<td>Frank Turner</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Date:</strong></td>
<td>March 21, 2002</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Permittee (print):</strong></td>
<td>Ardy and R.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Signature:</strong></td>
<td>Ardy and R.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Date:</strong></td>
<td>March 31, 2002</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
State Well No.: 2979-07  Well Name: Vacationland # 2A  Island: Hawaii
Address: Laura De Paho H:  Tax Map Key: 1-4-10-27
Pump Installation Company: Teresa Dallino
Date Pump Installed: May 5, 2002

5 PERMANENT PUMP INFORMATION
Pump Type, Make, Serial No.: Sub Hays # 120150-23  Rated Capacity: 12 gpm
Motor Type, H.P., Voltage, rpm: Franklin 1/2 HP 230V 3450 RPM
Type of flow meter: Pressure which measures in GPM

5 Method of flow measurement:
- Flowmeter Manufacturer Same Make Size 3/4 inch
- Weir
- Open Pipe
- Orifice
- Other*, explain below

*attach schematic

8 Other remarks/comments:

________________________

Pump Installation Contractor (print) Turner Drilling & Pump C-57/C-57a/A Lic. No. 22597
Signature ____________________________ Date March 21-02

Permittee (print) Andy R. Flavjms
Signature ____________________________ Date March 21-02
Pump Installation

State Well No.: 2979-08. Well Name: Vacationland #38. Island: Hawaii

Address: Mail ST

Tax Map Key: 1-4-70-15

Pump Installation Company: Turner Drilling

Date Pump Installed: May 5, 2002

Permanent Pump Information:

Pump Type, Make, Serial No.: Sub Hays #12075-23. Rated Capacity: 12 gpm
Motor Type, H.P., Voltage, rpm: Franklin 3/4 HP 230v 3450 RPM
Type of Flow Meter: Displacement which measures in GPM

Method of Flow Measurement:

- Flowmeter Manufacturer: Same
- Make: Same
- Size: 3/4"
- Weir*
- Open Pipe*
- Orifice*
- Other*, explain below

*attach schematic

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

Other remarks/comments:

Pump Installation Contractor (print): Turner Drilling & Pump C-57/C-57a/A Lic. No. 22597

Signature: [Signature]

Date: March 21-02

Permittee (print): Andy Shep, Hawaiian

Signature: [Signature]

Date: March 31
<table>
<thead>
<tr>
<th>State Well No.</th>
<th>2979-09</th>
<th>Well Name</th>
<th>Vacation Land #49</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Hauloa Holili</td>
<td>Tax Map Key</td>
<td>1-4-20-28</td>
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<tr>
<td>Pump Installation Company</td>
<td>Turner Drilling</td>
<td>Date Pump Installed</td>
<td>May 5, 2002</td>
</tr>
</tbody>
</table>

5. PERMANENT PUMP INFORMATION

| Pump Type, Make, Serial No. | Sub Hays #120 7523 | Rated Capacity | 12 gpm |
| Motor Type, H.P., Voltage, rpm | Franklin 3/4 HP 230V 3450 RPM |
| Type of flow meter | Pressure which measures in GPM |

6. Method of flow measurement:

- Flowmeter Manufacturer Same Make Size 3/4"
- Weir
- Open Pipe
- Orifice
- Other*, explain below

- attach schematic

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

8. Other remarks/comments:

Pump Installation Contractor (print) Turner Drilling & Pump C-57/C-57a/A Lic. No. 22597
Signature: [Signature]
Date: March 21-02

Permittee (print) [Signature]
Date: March 31
<table>
<thead>
<tr>
<th>TO:</th>
<th>INIT.</th>
<th>TO:</th>
<th>INIT.</th>
<th>FOR:</th>
<th>PLEASE:</th>
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<td>BAUER, G.</td>
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<td>MATHIAS, T.</td>
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<tr>
<td>CHING, F.</td>
<td></td>
<td>NAKAMA, L.</td>
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<td>Signature</td>
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<tr>
<td>DANBARA, S.</td>
<td></td>
<td>NAKANO, D.</td>
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<td>Information</td>
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<td>FUJII, N.</td>
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<td>NISHIOKA, L.</td>
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<tr>
<td>HARDY, R.</td>
<td>R</td>
<td>OHYE, M.</td>
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<td></td>
<td>See Me</td>
</tr>
<tr>
<td>HIGA, D.</td>
<td></td>
<td>SAKADA, E.</td>
<td></td>
<td></td>
<td>Review &amp; Comment</td>
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<tr>
<td>ICE, C.</td>
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<td>SUBIA, S.</td>
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<td></td>
<td>Take Action</td>
</tr>
<tr>
<td>IMATA, R.</td>
<td></td>
<td>SWANSON, S.</td>
<td></td>
<td></td>
<td>Type Draft</td>
</tr>
<tr>
<td>JINNAI, R.</td>
<td></td>
<td>UYENO, D.</td>
<td></td>
<td></td>
<td>Type Final</td>
</tr>
<tr>
<td>KUNIMURA, I.</td>
<td></td>
<td>YODA, K.</td>
<td></td>
<td></td>
<td>File</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>Xerox copies</td>
</tr>
</tbody>
</table>
May 20, 2002

Ms. Ardythe Harms
14-4196 Kapoho Pahoa Road
Pahoa, HI 96778

Dear Ms. Harms:

Pump Installation Permit for Well Nos. 2979-06 through –09

We are writing this letter to inform you of the proper procedure for obtaining your pump installation permits and to use your wells. Please follow the following procedure.

1. Please fill in the date of the pump installation as circled on the Well Completion Report Part II (this was requested of you in our letter dated April 25, 2002). For you information, you were allowed to install your pumps prior to getting pump installation permits, since your pumps are less than 70 gpm. Therefore, by filling out a date on the form, you are not in violation for installing the pumps without a permit.

2. Please explain why the pump intake depths are deeper than the well depths (this was also requested of you in our letter dated April 25, 2002).

3. You must submit a letter in accordance with the Commission’s decision on July 18, 2001, which stated that:

The applicant shall have a water quality test for each well conducted and the results assessed to determine if the water quality meets drinking water standards. The results of this test shall be submitted to the Department of Health’s Safe Drinking Water Branch, and a letter of concurrence from the Department of Health shall be submitted to the Commission prior to using the well for consumptive purposes. If the water quality is deemed by the Department of Health not to meet drinking water standards, pumpage shall cease immediately and the applicant shall file an application to seal the wells. The wells should then be sealed within ninety (90) days.

After this information is submitted, we can issue pump installation permits and your wells can be used.

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

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

RI:ss
1. **Pump Tests Check (special condition of PIP? Yes/No)** Glenn Bauer (initial if yes)
   - Yes
   - No
   
   **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:**
   - Yes
   - No

2. **Pump Installation Check** Mitch Ohye (initial)
   - Yes
   - No
   
   data complete
   - followed WCPI Stds
   - well database updated

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

4. Roy ____ (initial) check

5. Sabia ____ (initial) finalize

6. Linnel ______ (initial) signature

7. Charley/Lenore/Ryan File
Ms. Ardythe Harms  
14-4196 Kapoho Pahoa Road  
Pahoa, HI 96778

Dear Ms. Harms:

Well Completion Report for Well No. 2979-06 through -09

We have received your Well Completion Report Part II for the Vacationland #1a to #4a Wells (Well No. 2979-06 through -09). However, matters which must be addressed before we accept your report as complete are as follows:

1. Please fill in the date of pump installation as circled on the Completion Report (we have attached copies for your use).

2. Please explain why the pump intake depths are deeper than the well depths. For example, for Well No. 2979-06, the total depth of the well is 11 ft., but the pump intake depth is 12.59 ft. below the benchmark.

Please respond to the above item(s) within thirty (30) days of this letter's date. Failure to do so may result in fines of up to $1000 per day.

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

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

Attachment
MEMO and ROUTE SLIP

WCR 1 Check for Well No. 2979-06-09 (survey to regulation memo)

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

   - 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:

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

   - data complete
   - followed WCPI Stds
   - well database updated

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

   not necessary – only WCP.

   To be sent to applicant

4. Roy (initial) check
5. Subia (initial) finalize
6. Linnel (initial) signature
7. Charley/Lenore/Ryan File

04/03/02
State of Hawaii  
COMMISSION ON WATER RESOURCE MANAGEMENT  
Department of Land and Natural Resources  

WELL COMPLETION REPORT - PART I  
Well Construction  

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

1. State Well No.: 2979-06  
Well Name: Vacationland #1a  
Island: Hawaii  

2. Address: Kaheka Road  
Tax Map Key: 1-4-67: 39  

3. Drilling Company: Turner Drilling & Pump  

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

5. Date Well Construction (drilled,cased,grouted) completed: 2-8-02  
Fill out attached Driller's Log  

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

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

7. Initial water-level encountered 8 ft. below ground  
Date and time of measurement: 2-7-02 9:00 a.m.  

8. Step-Drawdown Test completed? ☑ No  ☐ Yes  
Attach Step-Drawdown Test form (12/17/97 SDPTD Form)  
Parameters prior to pump test:  

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

10. Water-level: 56 ft. above msl  
Date and time of measurement: 2-28-02 11:00 a.m.  

11. Chloride: 69 ppm  
Date and time of sampling:  

12. Temperature: 69°F  
Date and time of measurement: 2-28-02 11:00 a.m.  

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

14. Fill in attached surveyor's report.  

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

16. The proposed manufacturer's rated pump capacity is 20 gpm at a head of 20 ft.  

17. Remarks:  

Licensed Driller (print) Turner Drilling & Pump  
C-57 Lic. No. 22597  
Signature  
Date March 21, 2002  

Permittee (print)  
Signature  
Date 1/1/02
13. AS-BUILT WELL SECTION
(Please attach as-built if different from diagram provided below)

- Bench mark elevation: 7.48 ft., msl
  (Survey to nearest 0.01 ft.)
- Hole Diameter: 12 1/2 in.
- Maximum of 2' Radius & 4" Thick Concrete Pad
- Ground Elevation: 7.24 ft., msl
- Minimum 2' Radius & 4" Thick Concrete Pad
- Elevation at top of casing 8.59 ft., msl (to nearest 0.01 ft.)
- Cement Grout: 8 ft.
  (min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)
- Void space between hole and casing (min. 3")
- 3 in.
- Annular space between hole and casing (min. 3")
- 3 in.
- Rock or Gravel Packing:
  - Material: Crushed Basalt
  - 3 ft.
- Water Level Elevation: .56 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: (check one):
  - ASTM A242
  - Type E
  - Type S
  - Grade B
  - Other
- 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
- Stainless Steel: (check one):
  - ASTM A242
  - Type E
  - Type S
  - Grade B
  - Other
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one):
  - Schedule 40
  - Schedule 80
  - Schedule 120
- Thermoset Plastic: (check one)
  - Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrifugally Cast Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - FEP Fluorocarbon Tubing conforming to ASTM D3296

*msl = mean sea level
## DRILLER'S LOG

**WELL NUMBER:** 2979-06

<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>
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<tbody>
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<td>0 to 10</td>
<td>Broken Lava</td>
<td>2-7-02</td>
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<td>10 to 11</td>
<td>Black Cinders</td>
<td>2-7-02</td>
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<td>8 to 11</td>
<td>Water</td>
<td>2-7-02</td>
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### Remarks:

-
PLOT PLAN
(Provide Latitude and Longitude of well referenced to NAD27 to nearest second)
WELL COMPLETION REPORT - PART II
Pump Installation

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

1. State Well No.: 2979-06  
   Well Name: Vacationland I  
   Island: Hawaii

2. Address: Kaheka Road  
   Tax Map Key: 1-4-67-39

3. Pump Installation Company: Turner Drilling

4. Date Pump Installed: __________ month/day/year

5. PERMANENT PUMP INFORMATION
   - Pump Type, Make, Serial No.: Hays Sub #12075-23  
   - Rated Capacity: 12 gpm
   - Motor Type, H.P., Voltage, rpm: Franklin 3/4 HP 230V 3450 RPM
   - Type of flow meter: Pressure which measures in GPM

6. Method of flow measurement:
   - Flowmeter Manufacturer: SAME  
   - Make: ______________ Size: 3/4"
   - Weir*  
   - Open Pipe*  
   - Orifice*  
   - Other*, explain below
   - *attach schematic

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

8. Other remarks/comments:

   _______________________________________________________________
   _______________________________________________________________
   _______________________________________________________________
   _______________________________________________________________
   _______________________________________________________________

Pump Installation Contractor (print): Turner Drilling & Pump C-57/C-57a/A  
Lic. No. 22597

Signature: [Signature]  
Date: MARCH 21-02

Permittee (print): [Name]  
Signature: [Signature]  
Date: MARCH 31/02
Bench mark elevation surveyed to nearest 0.01 ft. = 7.48 ft. mean sea level

Elevation of top of chase tube = 8.59 ft. mean sea level

Pump intake depth = 12.59 ft. (referenced to bench mark)

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

If airline installed, bottom of airline elevation = ________ ft. mean sea level
STATE OF HAWAI’I
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

WELL COMPLETION REPORT - PART I
Well Construction

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

1. State Well No.: 2979-07  
   Well Name: Vacationland #2a  
   Island: Hawaii

2. Address: Laua Drive  
   Tax Map Key: 1-4-70: 27

3. Drilling Company: Turner Drilling & Pump

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

5. Date Well Construction (drilled,cased,grouted) completed: 2-8-02  
   Fill out attached Driller's Log

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

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

7. Initial water-level encountered: 12 ft. below ground  
   Date and time of measurement: 2-6-02 12:00 p.m.

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

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

   Parameters prior to pump test:

10. Water-level: 1.50 ft. above msl  
    Date and time of measurement: 2-28-02 10:30 p.m.

11. Chloride: 68 ppm  
     Date and time of sampling: 2-28-02 10:30 p.m.

12. Temperature: 68°F  
    Date and time of measurement: 2-28-02 10:30 p.m.

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

14. Fill in attached surveyor's report.

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

16. The proposed manufacturer's rated pump capacity is 20 gpm at a head of 20 ft.

17. Remarks:

Licensed Driller (print) Turner Drilling & Pump C-57 Lic. No. 22597

Signature  
Date March 21, 2002

Permittee (print)  

Signature  
Date 11/19/2001
13. AS-BUILT WELL SECTION
(Please attach as-built if different from diagram provided below)

Bench mark elevation: 11.70 ft., msl*
(Survey to nearest 0.01 ft.)

Cement Grout: 11 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:
4 ft.
Material:
- Crushed Basalt
- Rounded Gravel

Water Level Elevation: 1.50 ft., msl*

Minimum of 2' Radius & 4" Thick Concrete Pad

Total Depth 15 ft.

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

Length: 12 ft.
Nominal Diameter: 6 in.
Wall Thickness: 0.188 in.
Bottom Elevation: 11.50 ft., msl

Open Casing: □ Perforated □ Screen

Length: 3 ft.
Nominal Diameter: 6 in.
Wall Thickness: 0.188 in.
Bottom Elevation: 3.50 ft., msl

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

*msl = mean sea level

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 well) □ 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)
□ Centrifugally Cast Resin Pipe conforming to ASTM D2996
□ Filament Wound Resin Pipe conforming to ASTM D2996
□ 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 well) □ 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)
□ Centrifugally Cast Resin Pipe conforming to ASTM D2996
□ Filament Wound Resin Pipe conforming to ASTM D2996
□ PTFE Fluorocarbon Tubing conforming to ASTM D3296
□ FEP Fluorocarbon Tubing conforming to ASTM D3296

Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to ensure that your as-built is in compliance with applicable standards.
**DRILLER'S LOG**

**WELL NUMBER:** 2979-07

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, etc.</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 5</td>
<td>Hard Basalt</td>
<td>2-8-02</td>
</tr>
<tr>
<td>5 to 11</td>
<td>Broken Lava</td>
<td>2-8-02</td>
</tr>
<tr>
<td>11 to 14</td>
<td>Hard Basalt</td>
<td>2-8-02</td>
</tr>
<tr>
<td>14 to 15</td>
<td>Cinders Black</td>
<td>2-8-02</td>
</tr>
<tr>
<td>____________</td>
<td>____________</td>
<td>_______</td>
</tr>
</tbody>
</table>

Remarks:
PLOT PLAN
(Provide Latitude and Longitude of well referenced to NAD27 to nearest second)
### WELL COMPLETION REPORT - PART II

**Pump Installation**

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

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>State Well No.: 2979-02</td>
</tr>
<tr>
<td>2</td>
<td>Address: Laie Dr. Pahoa, Hi.</td>
</tr>
<tr>
<td>3</td>
<td>Pump Installation Company: Turner Drilling</td>
</tr>
<tr>
<td>4</td>
<td>Date Pump Installed:</td>
</tr>
<tr>
<td>5</td>
<td>PERMANENT PUMP INFORMATION</td>
</tr>
<tr>
<td></td>
<td>Pump Type, Make, Serial No.: Sub Hays # 120150-23</td>
</tr>
<tr>
<td></td>
<td>Rated Capacity: 12 gpm</td>
</tr>
<tr>
<td></td>
<td>Motor Type, H.P., Voltage, rpm: Franklin 1(\frac{1}{2}) HP 230V 3450 RPM</td>
</tr>
<tr>
<td></td>
<td>Type of flow meter: Pressure which measures in GPM</td>
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<td>6</td>
<td>Method of flow measurement:</td>
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<tr>
<td></td>
<td><img src="#" alt="Flowmeter" /> Manufacturer Same Make Size 3/4 inch</td>
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<td></td>
<td><img src="#" alt="Weir" /> Open Pipe <img src="#" alt="Orifice" /> Other*, explain below</td>
</tr>
<tr>
<td></td>
<td><img src="#" alt="*attach schematic" /></td>
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<tr>
<td>7</td>
<td>Fill in the as-built section on the other side of this sheet.</td>
</tr>
<tr>
<td>8</td>
<td>Other remarks/comments:</td>
</tr>
</tbody>
</table>

**Pump Installation Contractor (print):** Turner Drilling & Pump C-57/C-57a/A  Lic. No. 22597  
**Signature:** [Signature]  
**Date:** [MARCH 21-02]  
**Permittee (print):** [Signature]  
**Date:** [March 31]
9. **AS-BUILT PUMP SECTION** *(Please attach as-built if different from diagram provided below)*

- **Bench mark elevation surveyed to nearest 0.01 ft.** = 11.70 ft. mean sea level

- **Elevation of top of chase tube** = 12.00 ft. mean sea level

- **Pump intake depth** = 13.50 ft. (referenced to bench mark)

- **Chase tube depth** = ______ ft. (referenced to bench mark)

- **If airline installed, bottom of airline elevation = ______ ft. mean sea level**
<table>
<thead>
<tr>
<th>1. State Well No.:</th>
<th>2979-08</th>
<th>Well Name:</th>
<th>Vacationland #3a</th>
<th>Island:</th>
<th>Hawaii</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Address:</td>
<td>Maile St</td>
<td>Tax Map Key:</td>
<td>1-4-70: 15</td>
<td>Island:</td>
<td>Hawaii</td>
</tr>
<tr>
<td>4. Drilling method used during construction:</td>
<td>☑ Rotary</td>
<td>☐ Percussion</td>
<td>☐ Other (describe)</td>
<td>Island:</td>
<td>Hawaii</td>
</tr>
<tr>
<td>5. Date Well Construction (drilled, cased, grouted) completed:</td>
<td>2-8-02</td>
<td>Fill out attached Driller's Log</td>
<td>Island:</td>
<td>Hawaii</td>
<td></td>
</tr>
</tbody>
</table>

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

6. Was the subject well cored? | ☑ Yes | ☐ No | Island:   | Hawaii |

7. Initial water-level encountered | 13 ft. below ground | Date and time of measurement: 2-7-02 1:00 p.m. | Island:   | Hawaii |

8. Step-Drawdown Test completed? | ☑ Yes | ☐ No | Attatch Step-Drawdown Test form (12/17/97 SDPTD Form) | Island:   | Hawaii |

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

Parameters prior to pump test:

10. Water-level: | 90 ft. above msl | Date and time of measurement: 2-28-02 1:00 p.m. | Island:   | Hawaii |

11. Chloride: | ppm | Date and time of sampling: | Island:   | Hawaii |

12. Temperature: | 68 °F | Date and time of measurement: 2-28-02 p.m. | Island:   | Hawaii |

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

14. Fill in attached surveyor's report.

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

16. The proposed manufacturer's rated pump capacity is | 20 gpm at a head of 20 ft. | Island:   | Hawaii |

17. Remarks: | 1/2HP Pump set | Island:   | Hawaii |

<table>
<thead>
<tr>
<th>Licensed Driller (print)</th>
<th>Turner Drilling &amp; Pump</th>
<th>C-57 Lic. No.</th>
<th>22597</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td></td>
<td>Date</td>
<td>March 21, 2002</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Permitee (print)</th>
<th>And the Harms</th>
<th>Date</th>
<th>11/19/2001</th>
</tr>
</thead>
</table>
13. AS-BUILT WELL SECTION 

Bench mark elevation: 12.50 ft., msl
(Survey to nearest 0.01 ft.)

Elevation at top of casing: 13.05 ft., msl
(to nearest 0.01 ft.)

Minimum of 2' Radius & 4" Thick Concrete Pad

Ground Elevation: 12.40 ft., msl

Hole Diameter: 12 1/2 in.

Minimum of 2' Radius & 4" Thick Concrete Pad

Cement Grout: 11 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:
4 ft.
Material: 
 Crushed Basalt
 Rounded Gravel

Water Level Elevation: 90 ft., msl

Solid Casing: (≥ 90% x (Ground Elev.-Water Level Elev))
Length: 11.65 ft.
Nominal Diameter: 6 in.
Wall Thickness: .188 in.
Bottom Elevation: 1.4 ft., msl

Open Casing:
Perforated Screen
Length: 4 ft.
Nominal Diameter: 6 in.
Wall Thickness: .188 in.
Bottom Elevation: 2.5 ft., msl

Open Hole:
Length: 
Diameter: 
Bottom Elevation: 

Solid Casing Material:

8-2979-08 VACATIONLAND 3A

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)

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)
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□ FEP Fluorocarbon Tubing conforming to ASTM D3296

*msl = mean sea level
## DRILLER'S LOG

**WELL NUMBER:** 2979-08

<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>
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<tbody>
<tr>
<td>0 to 5</td>
<td>Hard Black Basalt</td>
<td>2-7-02</td>
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<tr>
<td>5 to 13</td>
<td>Broken Lava</td>
<td>2-7-02</td>
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<tr>
<td>13 to 14</td>
<td>Hard Basalt</td>
<td>2-7-02</td>
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<td></td>
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<tr>
<td>14 to 15</td>
<td>Black Cinders</td>
<td>2-7-02</td>
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<td></td>
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</tr>
<tr>
<td>12 to 15</td>
<td>Water</td>
<td>2-7-02</td>
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</table>

**Remarks:**
PLOT PLAN
(Provide Latitude and Longitude of well referenced to NAD27 to nearest second)
State of Hawaii  
COMMISSION ON WATER RESOURCE MANAGEMENT  
Department of Land and Natural Resources  
WELL COMPLETION REPORT - PART II  
Pump Installation

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

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td>State Well No.:</td>
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<tr>
<td>2</td>
<td>Well Name:</td>
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<td>3</td>
<td>Island:</td>
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<tr>
<td>4</td>
<td>Address:</td>
</tr>
<tr>
<td>5</td>
<td>Date Pump Installed:</td>
</tr>
<tr>
<td>6</td>
<td>Pump Installation Company:</td>
</tr>
<tr>
<td>7</td>
<td>Tax Map Key:</td>
</tr>
</tbody>
</table>

PERMANENT PUMP INFORMATION

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>8</td>
<td>Pump Type, Make, Serial No.:</td>
</tr>
<tr>
<td>9</td>
<td>Rated Capacity:</td>
</tr>
<tr>
<td>10</td>
<td>Motor Type, H.P., Voltage, rpm:</td>
</tr>
<tr>
<td>11</td>
<td>Type of flow meter:</td>
</tr>
<tr>
<td>12</td>
<td>which measures in</td>
</tr>
</tbody>
</table>

Method of flow measurement:

- Flowmeter  
- Manufacturer Same  
- Make Same  
- Size 3/4"  
- Weir*  
- Open Pipe*  
- Orifice*  
- Other*, explain below  

*attach schematic

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

Other remarks/comments:

---

Pump Installation Contractor (print): Turner Drilling & Pump  
C-57/C-57a/A Lic. No. 22597

Signature:  
Date: MARCH 21-02

Permittee (print):  
Signature:  
Date: March 31

WCR2 Form 5/200
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

Bench mark elevation surveyed to nearest 0.01 ft. = 12.50 ft. mean sea level

Elevation of top of chase tube = 1305 ft. mean sea level

Pump intake depth = 14.50 ft. (referenced to bench mark)

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

If airline installed, bottom of airline elevation = _____ ft. mean sea level
1. State Well No.: 2979-09
2. Well Name: Vacationland #4a
3. Address: Laulia Holili
4. Island: Hawaii
5. Tax Map Key: 1-4-20: 28
7. Drilling method used during construction: Rotary
8. Date Well Construction (drilled, cased, grouted) completed: 2-8-02
9. Fill out attached Driller's Log
10. Initial water-level encountered: 12 ft. below ground
11. Date and time of measurement: 2-6-02 8:30 a.m.
12. Step-Drawdown Test completed? Yes Yes
13. Date and time of measurement: 2-28-02 9:00 a.m.
14. Date and time of sampling: 2-28-02 9:00 a.m.
15. Parameters prior to pump test:
16. Water-level: 1.13 ft. above msl
17. Date and time of measurement: 2-28-02 9:00 a.m.
18. Chloride: ppm
19. Date and time of measurement: 2-28-02 9:00 a.m.
20. Temperature: 69 °F
21. Date and time of measurement: 2-28-02 9:00 a.m.
22. Fill in as-built section on the other side of this sheet.
23. Fill in attached surveyor's report.
24. 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.)
25. The proposed manufacturer's rated pump capacity is 20 gpm at a head of 20 ft.
26. Remarks:

Licensed Driller (print) Turner Drilling & Pump C-57 Lic. No. 22597

Signature

Date March 21, 2002

Permittee (print) Andryke Hansen

Signature

Date 11/6/01
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Elevation at top of casing: 12.15 ft., msl
(Hole Diameter: 12 1/2 in.)

Minimum of 2' Radius & 4" Thick Concrete Pad

Ground Elevation: 11.68 ft., msl

Please refer to the
HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS
to ensure that your as-built is in compliance
with applicable standards.

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

Length: 12.47 ft.
Nominal Diameter: 6 in.
Wall Thickness: .188 in.
Bottom Elevation: .32 ft., msl

Open Casing: □ Perforated □ Screen

Length: 3 ft.
Nominal Diameter: 6 in.
Wall Thickness: .188 in.
Bottom Elevation: 3.32 ft., msl

Open Hole:

Length: 
Diameter: 
Bottom Elevation: 

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
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□ PTFE Fluorocarbon Tubing conforming to ASTM D3296
□ FEP Fluorocarbon Tubing conforming to ASTM D3296

*msl = mean sea level
**DRILLER'S LOG**

**WELL NUMBER:** 2979-09

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, etc.</th>
<th>Dates</th>
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</thead>
<tbody>
<tr>
<td>0 to 3</td>
<td>Black Basalt</td>
<td>2-8-02</td>
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<tr>
<td>3 to 7</td>
<td>Broken Lava</td>
<td>2-8-02</td>
</tr>
<tr>
<td>7 to 10</td>
<td>Hard Black Basalt</td>
<td>2-8-02</td>
</tr>
<tr>
<td>10 to 15</td>
<td>Broken Lava</td>
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<td>__ to __</td>
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<td>12 to 15</td>
<td>Water</td>
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**Remarks:**
PLOT PLAN
(Provide Latitude and Longitude of well referenced to NAD27 to nearest second)

Well Elevation
Benchmark Elevation
(0.01 ft. above msl)

Concrete Pad

Benchmark reference control point

MSL

Surveyor's stamp and signature

NIELS CHRISTENSEN
LICENSED
PROFESSIONAL
LAND
SURVEYOR
No. 9077
HAWAII, U.S.A.

[Signature]
State of Hawaii  
COMMISSION on WATER RESOURCE MANAGEMENT  
Department of Land and Natural Resources  
WELL COMPLETION REPORT - PART II  
Pump Installation

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

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<tr>
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<tr>
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<tr>
<td>Well Name</td>
<td>Vacationland #10</td>
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<tr>
<td>Island</td>
<td>Hawaii</td>
</tr>
<tr>
<td>Address</td>
<td>Laulia Holili</td>
</tr>
<tr>
<td>Tax Map Key</td>
<td>1-4-20-28</td>
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<tr>
<td>Pump Installation Company</td>
<td>Turner Drilling</td>
</tr>
<tr>
<td>Date Pump Installed</td>
<td>[Insert Date]</td>
</tr>
<tr>
<td>PERMANENT PUMP INFORMATION</td>
<td></td>
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<tr>
<td>Pump Type, Make, Serial No.</td>
<td>Sub Hays #1207523</td>
</tr>
<tr>
<td>Rated Capacity</td>
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</tr>
<tr>
<td>Motor Type, H.P., Voltage, rpm</td>
<td>Franklin 3/4 HP 230V 3450 RPM</td>
</tr>
<tr>
<td>Type of Flow Meter</td>
<td>Pressure</td>
</tr>
<tr>
<td>Method of flow measurement</td>
<td>Flowmeter Make Same Size 3/4”</td>
</tr>
<tr>
<td></td>
<td>Weir* Open Pipe* Orifice* Other*, explain below</td>
</tr>
<tr>
<td></td>
<td>*attach schematic</td>
</tr>
<tr>
<td>Fill in the as-built section on the other side of this sheet.</td>
<td></td>
</tr>
<tr>
<td>Other remarks/comments</td>
<td>[Insert Remarks]</td>
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<tr>
<td>Pump Installation Contractor (print)</td>
<td>Turner Drilling &amp; Pump</td>
</tr>
<tr>
<td>Signature</td>
<td>[Signatures]</td>
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<tr>
<td>Date</td>
<td>[March 21-02]</td>
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<tr>
<td>Permittee (print)</td>
<td>[Signatures]</td>
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<tr>
<td>Date</td>
<td>[March 31]</td>
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WCR2 Form 5/2/00
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

Bench mark elevation surveyed to nearest 0.01 ft. = 11.78 ft. mean sea level

elevation of top of chase tube = 121.5 ft. mean sea level

Pump intake depth = 13.15 ft. (referenced to bench mark)

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

if airline installed, bottom of airline elevation = ____ ft. mean sea level
Ms. Ardythe Harms  
14-4196 Kapoho Pahoa Road  
Pahoa, HI 96778

Dear Ms. Harms:

Well Construction Permit  
Vacationland #1a through #4a (Well No. 2979-06 through -09)

With the confirmation of your completed SMA process, we accept your application for the Vacationland #1a through #4a wells (Well Nos. 2979-06 through -09) as complete and approved on October 1, 2001. Enclosed are two (2) copies of your approved Well Construction Permit for the captioned wells 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:

   "Permanen 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), extension 70255.

   Aloha,

   GILBERT S. COLOMA-AGARAN
   Chairperson

Enclosures
WELL CONSTRUCTION PERMIT

Vacationland #1a through #4a, Well No. 2979-06 through -09

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 Vacationland #1a through #4a (Well No. 2979-06 through -09) at Various, Hawaii, TMK Various, 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: October 1, 2001
Expiration Date: October 1, 2003

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

Permittee's Signature: ___________________________ Date: __________
Printed Name: ___________________________ Firm or Title: ___________________________
Driller's Signature: ___________________________ C-57 License #: ___________________________ Date: ___________________________
Printed Name: ___________________________ Firm or Title: ___________________________

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

Attachment

c: USGS
Department of Health - Safe Drinking Water, Wastewater, and Clean Water Branches
Hawaii Department of Water Supply
To: Ryan Imata  
Commission on Water Resources Management, DLNR

From: William Wong, P.E., Chief  
Safe Drinking Water Branch

Subject: SAFE DRINKING WATER BRANCH COMMENTS ON ARDITH HARM'S  
WELL DRILLING APPLICATION FOR STATE WELL NUMBERS  
2979-06 THROUGH 2979-09

Thank you for the opportunity to comment on the subject well drilling application. These wells are not covered by safe drinking water regulations. However, the Safe Drinking Water Branch does have concerns over the potential for contamination of these wells by nearby cesspools, at least one of which is 50 feet or less from one of the four wells. Another problem is the fact that the cesspools and wells are of approximately the same depth.

It is our understanding that the housing units being served by these wells will be provided with individual reverse osmosis treatment units. These treatment systems must be properly installed, operated and maintained. Based on these concerns, we recommend that the water being provided to the homes be periodically tested to demonstrate that no contamination by the cesspools is occurring.

If at any time in the future, these wells are either interconnected or individually serve more than 25 persons at least 60 days per year, they will be subject to all requirements applicable to a public water system.

Should you have any questions concerning these comments, please contact us at 586-4258.

MJH:la
**COMMISSION ON WATER RESOURCE MANAGEMENT**

**FROM:** RYAN

**DATE:** 10/20/01

**SUSPENSE DATE:**

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2019-06

**WELL NUMBER** 2019-09

**WELL NAME** Vacationland #1 a through #2 a wells

**WELL CONSTRUCTION**

ATTACHMENTS FOR WELL CONSTRUCTION PERMIT:

1. COVER LETTER
2. PERMIT (2x)
3. DOD COMMENTS
4. LAND DIV. COMMENTS
5. WCR FORM

TO BE SENT TO APPLICANT

FOR OFFICE USE ONLY

I spoke to Jeff Darrow in the planning dept. He said that even multiple single family dwellings served by the new well would be exempt.
COMMISSION ON WATER RESOURCE MANAGEMENT

<table>
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<th>SUSPENSE DATE:</th>
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I also need something. I have a copy with. Can I see the file?

Duplexes yes. Not SFR.
September 13, 2001

Ms. Ardythe Harms
14-4196 Keaau-Pahoa Road
Pahoa, HI 96778

Dear Ms. Harms:

Special Management Area Use Permit Assessment Application (SMAA 01-25)
Applicant: Ardythe Harms
Request: Establishment of a water well to serve an existing single family dwelling
TMK: 1-4-67: 38, Vacationland Subdivision, Kapoho Puna Hawaii

This is to acknowledge receipt of your Special Management Area Use Permit Assessment Application for the establishment of a water well to serve an existing single family dwelling in the Vacationland Subdivision in Kapoho.

The requested use is exempt from the definition of “development” by Planning Commission Rule No. 9 regarding the Special Management Area, as the water well will serve an existing single family dwelling on the property. While further review against the Special Management Area rules and regulations will not be required, all other applicable Zoning and Building Code requirements must be satisfied.

If you have any further questions, please contact Phyllis Fujimoto or Jeff Darrow of this office at 961-8288.

Sincerely,

CHRISTOPHER J. YUEN
Planning Director
Ms. Ardythe Harms  
14-4196 Keaau-Pahoa Road  
Pahoa, HI 96778  

Dear Ms. Harms:

Special Management Area Use Permit Assessment Application (SMAA 01-26)  
Applicant: Ardythe Harms  
Request: Establishment of a water well to serve an existing single family dwelling  
TMK: 1-4-70: 15, Vacationland Subdivision, Kapoho Puna Hawaii  

This is to acknowledge receipt of your Special Management Area Use Permit Assessment Application for the establishment of a water well to serve an existing single family dwelling in the Vacationland Subdivision in Kapoho.  

The requested use is exempt from the definition of "development" by Planning Commission Rule No. 9 regarding the Special Management Area, as the water well will serve an existing single family dwelling on the property. While further review against the Special Management Area rules and regulations will not be required, all other applicable Zoning and Building Code requirements must be satisfied.  

If you have any further questions, please contact Phyllis Fujimoto or Jeff Darrow of this office at 961-8288.  

Sincerely,  

CHRISTOPHER J. YUEN  
Planning Director  

PF:pak  
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September 13, 2001

Ms. Ardythe Harms
14-4196 Keaau-Pahoa Road
Pahoa, HI 96778

Dear Ms. Harms:

Special Management Area Use Permit Assessment Application (SMAA 01-27)
Applicant: Ardythe Harms
Request: Establishment of a water well to serve an existing single family dwelling
TMK: 1-4-70: 27, Vacationland Subdivision, Kapoho Puna Hawaii

This is to acknowledge receipt of your Special Management Area Use Permit Assessment Application for the establishment of a water well to serve an existing single family dwelling in the Vacationland Subdivision in Kapoho.

The requested use is exempt from the definition of “development” by Planning Commission Rule No. 9 regarding the Special Management Area, as the water well will serve an existing single family dwelling on the property. While further review against the Special Management Area rules and regulations will not be required, all other applicable Zoning and Building Code requirements must be satisfied.

If you have any further questions, please contact Phyllis Fujimoto or Jeff Darrow of this office at 961-8288.

Sincerely,

CHRISTOPHER J. YUEN
Planning Director

PF:pak
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Ms. Ardythe Harms
Page 2
September 13, 2001

cc: Long Range Planning
    Mr. Jeff Darrow, Ministerial Division
Ms. Ardythe Harms  
14-4196 Keaau-Pahoa Road  
Pahoa, HI 96778  

Dear Ms. Harms:  

Special Management Area Use Permit Assessment Application (SMAA 01-28)  
Applicant: Ardythe Harms  
Request: Establishment of a water well to serve an existing single family dwelling  
TMK: 1-4-70: 28, Vacationland Subdivision, Kapoho Puna Hawaii  

This is to acknowledge receipt of your Special Management Area Use Permit Assessment Application for the establishment of a water well to serve an existing single family dwelling in the Vacationland Subdivision in Kapoho.  

The requested use is exempt from the definition of "development" by Planning Commission Rule No. 9 regarding the Special Management Area, as the water well will serve an existing single family dwelling on the property. While further review against the Special Management Area rules and regulations will not be required, all other applicable Zoning and Building Code requirements must be satisfied.  

If you have any further questions, please contact Phyllis Fujimoto or Jeff Darrow of this office at 961-8288.  

Sincerely,  

CHRISTOPHER J. YUEN  
Planning Director  

PF:pak  
p:\wpwin60\czm\SMAA\2001\SMAA01-28
Ms. Ardythe Harms
Page 2
September 13, 2001

cc: Long Range Planning
    Jeff Darrow, Ministerial Division