### Maui Electric Co.
#### Kahului Power Plant Wells

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* injection test well, off-site

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**Kahului Power Plant Wells**

(Well Nos. 5427-01 to 07, 09 to 11)
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As built of the Kahului Power Plant Well A, State well No. 5427-01, TKM 3-7-11:20
Attachment No. 2

Solid Casing New, 40" ID, by 5/16" wall, ASTM 159A Grade B Copper Bearing (>0.2% Cu by wt.)

Original Steel Casing 2.4" diameter

Solid Reducer New 5', 20" I.D. by 16" OD, 5/16" wall, ASTM 159A Grade B Mild Steel

Annular Space 3"?

Solid Casing New, 130', 16" diameter O.D. by 5/16" wall, ASTM 159A Grade B Mild Steel

Original Annular Seal

Original Steel Casing 20" diameter

Existing borehole wall

1:1 Cement Sand slurry

16" x 12" x 3/4" Mild Steel Casing Shoe

Open Borehole 15" diameter
Mr. Tom DeMello  
Maui Electric Company, Ltd.  
200 Hobron Avenue  
Kahului, Maui HI 96732  

Dear Mr. De Mello:  

Kahului Power Plant Well A  
(Well No. 5427-01)  

Thank you for transmitting the Well Completion Report Parts 1 and 2 (Pump Installation) for the captioned salt water well, received December 13, 2000, and for answering some questions by phone to clarify reported information. We accept the report as complete as of December 18, 2000. Thanks very much for your cooperation. This completes the requirements for permitting.

If you have any questions, please contact Charley Ice of the Water Commission staff at 587-0251 or toll-free at 984-4644, extension 70251.

Sincerely,

LINNEL T. NISHIOKA  
Deputy Director

Cl:kly
Mr. Tom DeMello
Maui Electric Company, Ltd.
200 Hobron Avenue
Kahului, Maui HI 96732

Dear Mr. De Mello:

Kahului Power Plant Well A
(Well No. 5427-01)

Thank you for transmitting the Well Completion Report Parts 1 and 2 (Pump Installation) for the captioned salt water well, received December 13, 2000, and for answering some questions by phone to clarify reported information. We accept the report as complete as of December 18, 2000. Thanks very much for your cooperation. This completes the requirements for permitting.

If you have any questions, please contact Charley Ice of the Water Commission staff at 587-0251 or toll-free at 984-4644, extension 70251.

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

Ci:ky
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

*SEE ATTACHMENT NO. 1

Bench mark elevation surveyed to nearest 0.01 ft. = 8.74 ft. mean sea level

motor assembly (see "Attachment 1")

identify reference point elevation for water level measurements through chase tube

--- ft. mean sea level

describe reference point:

top of casing

---

BASE PLATE (see "Attachment 1")

Pump intake depth = 21.5 ft. (referenced to bench mark)

PLUS THICKNESS OF BASE PLATE = ?

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

if airline installed, bottom of airline elevation = _______ ft. mean sea level

notes from telecom w Bob Glasscott (Bryck Drilling) 16 Dec 00
COMMISSION ON WATER RESOURCE MANAGEMENT
(10/99)

FROM: LINNEL
DATE: DEC 13 2000

TO:  INIT. TO: INIT. FOR: PLEASE:
1. BAUER, G. LUM, A. Approval See Me
2. CHING, F. NAKAMA, L. Signature Review & Comment
3. DANBARA, S. NAKANO, D. Information Take Action
4. FUJII, N. NISHIOKA, L. Type Draft
5. HARDY, R. OHYE, M. Type Final File
6. HIGA, D. SAKODA, E. Xerox ___ copies
7. HIRANO, E. SUBIA, S. See Tab
8. ICE, C. SWANSON, S. 
9. IMATA, R. UYENO, D. 
10. JINNAI, R. YODA, K. 

Mitch - finally talked w Beylik installer - see notes in red on your page

OK 12-18-00
1. State Well No.: 5427-01  Well Name: KAHULUI POWER PLANT WELL A  Island: MAUI
2. Address: 200 HOBRON AVE., KAHULUI, HI 96732  Tax Map Key: 3-7-11:20
3. Drilling Company: ROSCOE MOSS HAWAII/BEYLIK DRILLING, INC.
4. If drilled, type of Rig: □ Rotary  ☑ Percussion
5. Date Well Construction (drilled,cased,grouted) completed: 9/16/99  Attach Driller's Log (7/26/99 DL Form)  

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

6. Initial water-level encountered ______ ft. below ground  Date and time of measurement:   
7. Step-Drawdown Test completed? ☑ No  □ Yes  Attach Step-Drawdown Test form (12/17/97 SDPTD Form)
8. Constant Rate Aquifer Test completed? ☑ No  □ Yes  Attach Constant Rate Aquifer Test form (12/17/97 CRPTD Form)

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

12. Fill in the as-built section on the other side of this sheet.
13. Attach plot plan and surveyor's stamped elevation report.
14. 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.)
15. Remarks: SEE ATTACHMENT NO. 1

---

**Licensed Driller** (print) BEYLIK DRILLING, INC.  C-57 Lic. No. AC-22214
Signature

**Surveyor** (print)  L.P.L.S. Lic. No.
Signature  please attach stamped report

**Permittee** (print) MAUI ELECTRIC CO., LTD
Signature  Date 11/21/00
*ATTACHMENT NO. 1*

Please note the scope of work involved the installation of new casing in an existing well at the above referenced site. New 16-inch mild steel casing was installed to a depth of 175-feet in the existing 20-inch well. The construction details are as follows; from the ground surface to 40-feet below ground surface (bgs) 20-inch diameter copper bearing corrosion resistant casing was installed. From 40 to 45-feet bgs a reducer was installed, going from 20-inch to 16-inch casing and constructed of mild steel. From 45 to 175-feet 16-inch casing was installed, constructed of mild steel. The 16-inch casing also had a 16-inch by 12-inch by ¾-inch thick casing shoe on the bottom. After the casing was installed, it was grouted in place with 1:1 cement sand slurry filling the annular space between the existing casing and the new casing. After the cement cured, a 15-inch borehole was advanced 50-feet to a depth of 225-feet bgs as shown on the attached figure.
13. AS-BUILT WELL SECTION

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

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

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

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

*SEE ATTACHMENT NO. 2*
December 5, 2000

Mr. Tom Demello  
Maui Electric Co., Ltd.  
200 Hobron Avenue  
Kahului, Hawaii 96732

Dear Mr. Demello,

Subject: Survey for Maui Electric Kahului Generation Plant  
Kahului, Maui, Hawaii  
TMK 3-7-11:20

This is to inform you that our office conducted a field survey on December 4 and 5, 2000 to determine the elevation on the top of an existing well casing on the subject parcel.

Based on our field survey, we have determined that the top of well casing elevation is 8.75 feet. This elevation is referenced to the existing U.S.G.S. Bench Mark Elevation on Reference Disk F-22.

If you have any questions or concerns, please feel free to contact us.

Very truly yours,

Reed M. Ariyoshi, P.E., L.S.  
Licensed Professional Land Surveyor  
Certificate No. 6597

RMA:sh
1. State Well No.: 5427-01  Well Name: KAHULUI POWER PLANT WELL A  Island: MAUI
2. Address: 200 HOBRON AVE., KAHULUI, HI 96732  Tax Map Key: 3-7-11:20
3. Pump Installation Company: ROSCOE MOSS HAWAII/BEYLIK DRILLING, INC.
4. Date Pump Installed: 10-28-99
5. PERMANENT PUMP INFORMATION
   Pump Type, Make, Serial No.: MIX FLOW/CASCADE/15466  Rated Capacity: 3500 gpm
   Motor Type, H.P., Voltage, rpm: V.S.S. 40/460/1200 (EXISTING WESTINGHOUSE)
   Type of flow meter: ____________________ which measures in ____________________
6. Method of flow measurement:
   □ Flowmeter  Manufacturer __________ Make __________ Size __________
   □ 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) BEYLIK DRILLING, INC. C-57/C-57a/A Lic. No. AC-22214
Signature ___________________________ Date 11-9-00
Permittee (print) MAUI ELECTRIC CO., LTD
Signature ___________________________ Date 11/21/00
**MEMO and ROUTE SLIP**

**WCR 1 Check for Well No. 5427-01** (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:** □ □  
     - If yes, identify most probable stream

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

4. Roy ______(initial) check

5. Susan Subia________(initial) finalize

6. Linnel________(initial) signature

7. Charley/Lenore/Ryan File

---

Tom DeMello informed by phone of this single remaining requirement of Nov 00; will "try to arrange to have it done."
MEMO and ROUTE SLIP

WCR 2 Check for Well No. 5427-01 (survey to regulation memo)

1. **Pump Tests Check** (special condition of PIP? Yes/No) Glenn Bauer (initial if yes)
   - Yes or No: ____________
   - If yes, 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:**
   - [ ]
   - If yes, identify most probable stream

2. **Pump Installation Check** Mitch Ohye (initial)
   - Yes or No: ____________
   - If no, describe deficiency

   data complete: [ ]
   - followed WCPI Stds: [ ]
   - well database updated: [ ]

   [ ]
   - charley filled in via phone

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

4. Roy ________ (initial) check

5. Susan Subia ________ (initial) finalize

6. Linnel ________ (initial) signature

7. Charley/Lenore/Ryan File
Date: 11-9-00 Time: 

TO: Charley Ice

COMPANY: Commission on Water Resource Management

TELECOPIER NUMBER: 587-0219

CONFIRMING NUMBER: 

Thomas DeMello
Production Maintenance Supervisor
Kahului Power Plant
Maul Electric Company, Ltd.
PO Box 398 (96733-6698)
200 Hobron Avenue
Kahului, Maui, Hawaii 96732
Phone: (808) 871-2358 or 871-8461
FAX: (808) 871-0778

Charley,

Here is the well completion report, pump installation report & as built drawings you requested. If you have any questions, please call me at 871-2358. Thank you.

Tom DeMello

We are transmitting from a Xerox Telecopier 7020.
Fax number: (808) 871-0778.
If you do not receive all the pages, please call (808) 871-2358.
**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 86069. The Commission may not accept incomplete reports. This form shall be submitted within 60 days of the completion of work. For assistance, please consult the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at 808-586-0228. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlnr/cwrm/

<table>
<thead>
<tr>
<th>1. State Well No.: 5427-01</th>
<th>2. Address: 200 HOBONIC AVE., KAHLULUI, HI 96732</th>
<th>Tex Map Key: 3-7-11:20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Name: KAHULUI POWER PLANT WELL A</td>
<td>Island: MAUI</td>
<td></td>
</tr>
<tr>
<td>3. Drilling Company: ROSSO MOSS HAWAII/BETLIK DRILLING, INC.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. If drilled, type of Rig: ☐ Rotary ☐ Percussion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Date Well Construction (drilled, cased, grouted) completed: 9/16/99 Attach Driller's Log (7/26/99 DL Form)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>6. Initial water-level encountered ft. below ground</th>
<th>Date and time of measurement:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Step-Drawdown Test completed? ☐ No ☐ Yes Attach Step-Drawdown Test form (12/1/77 SDPTD Form)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Constant Rate Aquifer Test completed? ☐ No ☐ Yes Attach Constant Rate Aquifer Test form (12/1/77 CRPTD Form)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Parameters prior to pump test:**

<table>
<thead>
<tr>
<th>9. Water-level:</th>
<th>Date and time of measurement:</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Chloride:</td>
<td>Date and time of sampling:</td>
</tr>
<tr>
<td>11. Temperature:</td>
<td>Date and time of measurement:</td>
</tr>
</tbody>
</table>

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

12. 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.)

13. Attach plot plan and surveyor’s stamped elevation report.

14. 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.)

15. Remarks: SEE ATTACHMENT NO. 1

---

**Licensed Driller (print)** BETLIK DRILLING, INC. C-57 Lic. No. AC-22214

**Signature**

**WILLIAM C. MOORE, VICE PRESIDENT**

**Date** 11-9-00

**Surveyor (print)**

**Signature**

**Date**

**Permittee (print)** MAUI ELECTRIC CO., LTD

**Signature**

**Date** 11/9/00
*ATTACHMENT NO. 1

Please note the scope of work involved the installation of new casing in an existing well at the above referenced site. New 16-inch mild steel casing was installed to a depth of 175-feet in the existing 20-inch well. The construction details are as follows; from the ground surface to 40-feet below ground surface (bgs) 20-inch diameter copper bearing corrosion resistant casing was installed. From 40 to 45-feet bgs a reducer was installed, going from 20-inch to 16-inch casing and constructed of mild steel. From 45 to 175-feet 16-inch casing was installed, constructed of mild steel. The 16-inch casing also had a 16-inch by 12-inch by ¾-inch thick casing shoe on the bottom. After the casing was installed, it was grouted in place with 1:1 cement sand slurry filling the annular space between the existing casing and the new casing. After the cement cured, a 15-inch borehole was advanced 50-feet to a depth of 225-feet bgs as shown on the attached figure.
13. AS-BUILT WELL SECTION  (Please attach as-built if different from diagram provided below)

Solid Casing Material:
- Carbon Steel, compliant with (check one or more): ANSI/WWA C200, API Spec. 5L, ASTM A53, ASTM A139
- Stainless Steel, compliant with: ASTM A409 (production wells), ASTM A512 (monitor wells)
- ABS Plastic, conforming to ASTM F450 and ASTM D1557: (check one) Schedule 40, Schedule 80, Schedule 120
- PVC Plastic, conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one) Schedule 40, Schedule 80, Schedule 120
- Thermoset Plastic, (check one): D Flanged Wound Resin Pipe conforming to ASTM D2996
  D Centrifugally Cast Resin Pipe conforming to ASTM D2997
  D Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  D Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  D FEP Fluorocarbon Tubing conforming to ASTM D3286
  D TFE Fluorocarbon Tubing conforming to ASTM D3288

Open Casing Material:
- Carbon Steel, compliant with (check one or more): ANSI/WWA C200, API Spec. 5L, ASTM A53, ASTM A139
- Stainless Steel, compliant with: ASTM A409 (production wells), ASTM A512 (monitor wells)
- ABS Plastic, conforming to ASTM F450 and ASTM D1557: (check one) Schedule 40, Schedule 80, Schedule 120
- PVC Plastic, conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one) Schedule 40, Schedule 80, Schedule 120
- Thermoset Plastic, (check one): D Flanged Wound Resin Pipe conforming to ASTM D2996
  D Centrifugally Cast Resin Pipe conforming to ASTM D2997
  D Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  D Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  D FEP Fluorocarbon Tubing conforming to ASTM D3286
  D TFE Fluorocarbon Tubing conforming to ASTM D3288
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 821, Honolulu, Hawaii 96803. The Commission may not accept incomplete reports. This form shall be submitted within 45 days of the completion of work. For assistance, please consult the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at 587-8225. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlnr/wv/wv/wor2f.html

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<tr>
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<tbody>
<tr>
<td>4. Date Pump Installed:</td>
<td>10-28-99</td>
<td>5. PERMANENT PUMP INFORMATION</td>
<td>Pump Type, Make, Serial No.: MIX FLOW/CASCADE/15466</td>
<td>Rated Capacity: 3500 gpm</td>
<td></td>
</tr>
<tr>
<td>6. Method of flow measurement:</td>
<td></td>
<td>Motor Type, H.P., Voltage, rpm:</td>
<td>V.S.S. 40/460/1200 (EXISTING WESTINGHOUSE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Fill in the as-built section on the other side of this sheet</td>
<td></td>
<td>Type of flow meter:</td>
<td>which measures In</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Other remarks/comments:</td>
<td></td>
<td>[ Flowmeter Manufacturer \ Make \ Size ]</td>
<td>[ Weir* \ Open Pipe* \ Office* \ Other*, explain below ]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pump Installation Contractor (print) BEYLIK DRILLING, INC. C-67/C-57a/A Lic. No. AC-22214  
Signature WILLIAM C. HOUSE, VICE PRESIDENT Date 11-9-00  
Permittee (print) MAUI ELECTRIC CO., LTD  
Signature Date 11/9/00
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

*SEE ATTACHMENT NO. 1

- Identify reference point elevation for water level measurements
- Chase tube depth = ___ ft. mean sea level
- Pump intake depth = ___ ft. (referenced to benchmark)
- Chase tube depth = ___ ft. (referenced to benchmark)
- If airline installed, bottom of airline elevation = ___ ft. mean sea level

Bench mark

elevation surveyed to nearest 0.01 ft. = ___ ft. mean sea level
Mr. Tom DeMello  
Maui Electric Co., Ltd.  
P.O. Box 398  
Kahului, Hawaii 96732  

Dear Mr. DeMello:  

Well Modification and Pump Modification Permits  
Kahului Power Plant Well A (Well No. 5427-01)  

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

Special Conditions

1. The well casing shall be grouted to sea level.  
2. Pump test results are not required, as this well continues the use of coastal salt water.

There are no special conditions under Pump Installation Condition 10.

Attached for your information is a copy of the Department of Health’s (DOH) review comments.

For your information, the normal sequence in the permitting process is first for well construction or modification, and only upon adequate pump test result reporting is there approval and issuance of the pump installation permit. Because the subject well is an existing well being deepened and re-cased and is continuing the use of coastal salt water, the usual requirements intended to protect fresh water supplies do not apply.

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

IMPORTANT - The permittee is responsible for all conditions of the permit. This includes ensuring that the well construction contractor, or other party who constructs the well(s), submits a completed 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.

If you have any questions, please call the Commission staff at 587-0251 or toll-free at 984-2400 (Maui), extension 70251.

Aloha,

MICHAEL D. WILSON  
Chairperson

Enclosures
WELL MODIFICATION PERMIT

Kahului Power Plant Well A, Well No. 5427-01

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 Kahului Power Plant Well (Well No. 5427-01) at Kahului, Maui, TMK 3-7-11:20, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work authorized by this permit commences.

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

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

4. The permittee shall incorporate mitigation measures to prevent construction debris from entering the aquatic environment, to schedule work to avoid periods of high rainfall, and to revegetate any cleared areas as soon as possible.

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

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

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

8. The permittee shall comply with all applicable laws, rules, and ordinances; 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 (HWCPIS, 1/23/97). 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 if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than three (3) months prior to the date the permit expires. If the commencement date is not met, the Commission may revoke the permit after giving the permittee notice and an opportunity to be heard.

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

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

Date of Approval: November 9, 1998
Expiry Date: November 9, 2000

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I do not hold a valid permit 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.

Permittee’s Signature: ___________________________ Date: __________________

Printed Name: ___________________________ Firm or Title: ___________________________

Driller’s Signature: ___________________________ License #: ___________________________ Date: __________________

Printed Name: ___________________________ Firm or Title: ___________________________

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

Attachment

C:

USGS
Department of Health/ Safe Drinking Water, Wastewater, and Clean Water Branches
Maul Department of Water Supply
PUMP MODIFICATION PERMIT

Kahului Power Plant Well A, Well No. 5427-01

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management’s Administrative Rules, Section 13-168, entitled “Water Use, Wells, and Stream Diversion Works”, this document permits the pump installation for Kahului Power Plant Well A (Well No. 5427-01) at Kahului, Maui, TMK 3-7-11:20, 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 to the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. The pump installation permit shall be for installation of a 3,500 gpm capacity, or less, pump in the well.

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

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

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

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

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

8. The permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the pump installation permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than three (3) months prior to the date the permit expires. If the commencement date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.

9. If the well is not to be used it must be properly capped. If the well is to be abandoned then the permittee must apply for a well abandonment permit in accordance with §13-169-12(f) prior to any well sealing or plugging work.

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

Date of Approval: November 9, 1998
Expiration Date: November 9, 2000

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I do not hold a valid permit until I and the pump installer have signed, dated, and returned the permit to the Commission. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day.

Permittee’s Signature: ___________________________ Date: ______________
Printed Name: ___________________________ Firm or Title: ___________________________

Installer’s Signature: ___________________________ License #: ______________ Date: ______________
Printed Name: ___________________________ Firm or Title: ___________________________

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

Attachments

C: USGS
Department of Health/ Safe Drinking Water & Wastewater Branches
Maul Department of Water Supply
PUMP MODIFICATION PERMIT

Kahului Power Plant Well A, Well No. 5427-01

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Kahului Power Plant Well A (Well No. 5427-01) at Kahului, Maui, TMK 3-7-11:20, 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 to the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. The pump installation permit shall be for installation of a 3,500 gpm capacity, or less, pump in the well.

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

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

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

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

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

8. The permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the pump installation permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than three (3) months prior to the date the permit expires. If the commencement date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.

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

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

Date of Approval: November 9, 1998
Expiration Date: November 9, 2000

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I do not hold a valid permit until I and the pump installer have signed, dated, and returned the permit to the Commission. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day.

Permittee's Signature: Stanley Miyungai
Printed Name: STANLEY KIYOWAKA
Firm or Title: MAUI ELECTRIC COMPANY

Installer's Signature: Tracy Lawmell
License #: AC-16437 Date: 11/30/98
Printed Name: TRACY LUNNELL
Firm or Title: ROCOCO MASONRY HAWAII, INC.

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

Attachments

C: USGS
Department of Health/ Safe Drinking Water & Wastewater Branches
Maui Department of Water Supply
WELL MODIFICATION PERMIT

Kahului Power Plant Well A, Well No. 5427-01

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 Kahului Power Plant Well (Well No. 5427-01) at Kahului, Maui, TMK 3-7-11:20, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work authorized by this permit commences.

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

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

4. The permittee shall incorporate mitigation measures to prevent construction debris from entering the aquatic environment, to schedule work to avoid periods of high rainfall, and to revegetate any cleared areas as soon as possible.

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

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

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

8. The permittee shall comply with all applicable laws, rules, and ordinances; 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 (HWCPIS, 1/23/97). 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 if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than three (3) months prior to the date the permit expires. If the commencement date is not met, the Commission may revoke the permit after giving the permittee notice and an opportunity to be heard.

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

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

Date of Approval: November 9, 1998
Expiration Date: November 9, 2000

P. Michael Wilson, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I do not hold a valid permit 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.

Permittee’s Signature: Furniture
Date: / / 1998
Printed Name: STANLEY KYOHASHI Firm or Title: MAUI ELECTRIC COMPANY

Driller’s Signature: Furniture License #: AC-116571 Date: / / 1998
Printed Name: Tracy Runnels Firm or Title: LUCAS MESS HAWAII, INC.

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

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

SUBJECT: Well Construction/Pump Installation Permit Application
Kahului Power Plant Well A (Well No. 5427-01)

Transmitted for your review and comment is a copy of the captioned well application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by November 5, 1998.

Please find a map, attached, to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Charley Ice of the Commission staff at 587-0251.

Cl: ss
Attachment(s)

RESPONSE:

[ ] This well qualifies as a source which will serve as a source of potable water to a public water system (serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (RAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-29.

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

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

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

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

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

[ ] No comments/objections

Contact Person: William Wong
Phone: 587-0258
Signed: Timothy E. Johns
Date: 11/5/98

NOV 5 1998 - faxed
TO: Honorable Lawrence Mka, Director  
Department of Health  
Attention: Dennis Tulang, Wastewater Branch  
William Wong, Safe Drinking Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application  
Kahului Power Plant Well A (Well No. 5427-01)

Transmitted for your review and comment is a copy of the captioned well application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by November 5, 1998.

Please find a map, attached, to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Charley Ice of the Commission staff at 887-0251.

Class
Attachment(s)

RESPONSE:

This well qualifies as a source which will serve as a source of potable water to a public water system (serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-29.

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

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

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

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

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

No comments/objections

Contact Person: William Wong  
Phone: 586-4058

Signed: Stephen J. Hasekawa  
Date: 11/5/98

NOV 05-98 14:24 FROM: HI DEPT OF HEALTH  
PAGE 1/1
TO: Honorable Lawrence Miike, Director
   Department of Health
   Attention: Dennis Tulang, Wastewater Branch
   William Wong, Safe Drinking Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application
         Kahului Power Plant Well A (Well No. 5427-01)

Transmitted for your review and comment is a copy of the captioned well application.

We would appreciate your comments on the captioned application for any conflicts or
inconsistencies with the programs, plans, and objectives specific to your department. Please respond
by returning this cover memo form by November 5, 1998.

Please find a map, attached, to locate the proposed well. If you have any questions about this
permit application, request additional information, or request additional review time, please contact
Charley Ice of the Commission staff at 587-0251.

RESPONSE:

[] This well qualifies as a source which will serve as a source of potable water to a public water system (serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 29, Rules Regulating Potable Water Systems, §11-20-29.

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

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

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

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

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

[] No comments/objections

Contact Person: Loni Kajiwara
                Phone: 808-429-8232

Signed: Loni Kajiwara
        Date: 10-29-98
Mr. Tom DeMello  
Maui Electric Co., Ltd.  
P.O. Box 398  
Kahului, HI 96732

Dear Mr. DeMello:

Well Construction/Pump Installation Permit Application for Well No. 5427-01

We acknowledge receipt, on October 6, 1998, of your completed well construction/pump installation permit application for the Kahului Power Plant Well A (Well No. 5427-01). You can expect your application to be processed within ninety (90) days from this date.

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

If you have any questions about your permit application, please contact Charley Ice of the Commission staff at 587-0251 or toll free at 984-2400 (Maui), extension 70251.

Sincerely,

Timothy E. Johns  
Deputy Director

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

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

SUBJECT: Well Construction/Pump Installation Permit Application  
Kahului Power Plant Well A (Well No. 5427-91)  

Transmitted for your review and comment is a copy of the captioned well application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by November 5, 1998.

Please find a map, attached, to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Charley Ice of the Commission staff at 587-0251.

COPY

RESPONSE:

[ ] This well qualifies as a source which will serve as a source of potable water to a public water system (serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-29.

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

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

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

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

[ ] No comments/objections

Contact Person: ___________________________ Phone: ___________________________

Signed: ___________________________ Date: ___________________________
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REMARKS:
LINE (1) Well No. 5427-01 (WCPA/PTPA)
LINE (2) 
LINE (3) 
LINE (4) 

---

ROSCEO MOSS HAWAII, INC.
91-259A OIAI ST. PH: 808-682-5856
KAPOLEI, HI 96707

BANK OF HAWAII
MAIN OFFICE
HONOLULU, HI 96814
59-102-1213

PAY TWENTY-FIVE AND 00/100 DOLLARS $25.00

DATE 10/05/98

S.O.H./DEPT. OF LAND & NATURAL RESOURCES

AUTHORIZED SIGNATURE

---

10/05/98 DL11 PERMIT APPLICATION FEE PER TRACY R.
5890.61 10-98R $25.00
F. DECLARATION OF WATER USE

NOTE: The purpose of the Declaration of Water Use is to gather information necessary for the management of the State's water resources. The Declaration gives no personal or legal right to water or its use.

Water use data are recorded: [ ] Daily [ ] Weekly [ ] Monthly
Method of measurement: [ ] Flow Meter [ ] Orifice
[ ] Other (describe):

Quantity of Use (Report measured or estimated monthly water use from the well described on the reverse side of this form, for the calendar years 1983 through 1987. For a battery of wells which are not individually metered, but which are measured by a single or other measuring device, report total use from the battery): 54.27 - 01

WATER USE, IN GALLONS x 1000

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Minimum day's use: 22.5 MGD  Maximum day's use: 5.32 MGD
Typical times of usage: 9 AM to 5 PM

Type of Use (check all category boxes that apply and provide additional information as indicated):

Category
[ ] Municipal (including restrooms, hotels, laundromats)
[ ] Domestic (water use for living 50 people of less)
[ ] Irrigation
[ ] Industrial
[ ] Military
[ ] Other

Additional Information

Number of service connections:

Acres irrigated:

Crop(s): [ ] Sugar [ ] Pineapple
[ ] Other (specify):
Non-Crop: [ ] Landscape [ ] Golf Course
[ ] Other (specify):
Method: [ ] Drip [ ] Furrow [ ] Sprinkler
[ ] Cooling [ ] Manufacturing [ ] MFG
[ ] Other (specify):

I declare that the contents of the above Declaration of Water Use are, to the best of my knowledge and belief, true, correct, and complete.

Water User's Signature: ____________________________ Date: 7/13/87
Printed Name: ____________________________
Firm or Title (Well Operator, etc.): ____________________________
**Proposed Well Modification**
(Recased + Deepened)

**Ground Level**

**Vault (Below Grade)**

- W.L. 10'
- 20" I.D.
- .312 wall
- Steel Pipe
- 20x16" Bell

**Vault Floor**

- 20" I.D.
- .312 wall
- Steel Pipe
- 16" O.D.
- .312 wall
- 130'

**Cement Grouted**
Annulars 175'

**Total Casing Depth**
175'

**Total Well Depth**
325'

**16"x12"x3/4"**
Drive Shoe

**130 feet**
50"top out
APPLICATION FOR PERMIT

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

APPLICATION FOR PERMIT

[Stamp: 16/06/96]

1. APPLICANT: (circle primary contact a, b, or c)
   (a) WELL OWNER
   Firm Name: Maui Electric Co. Ltd.
   Contact Person: Tom DeMello
   Address: P.O. Box 398, 200 Hobron Ave.
   Kahului, Maui, HI 96732
   Primary Fax: (808) 871-2358

   (b) LANDOWNER
   Firm Name: Same as Owner
   Contact Person: Tom DeMello
   Address: 200 Hobron Ave.
   Kahului, Maui, HI 96732
   Fax: (808) 871-2358

   (c) CONTRACTOR
   Firm Name: Roscoe Moss Hawaii, Inc.
   Contact Person: Tracy Runnels
   Address: 91-259A Ola St., Kapolei, HI 96707
   Fax: 682-5866

2. WELL LOCATION/NAME: Kahului Power Plant State Well #5427-01 Island Maui
   Address: 200 Hobron Ave., Kahului, Maui, HI 96732
   Tax Map Key: 3-7-11-20
   (Attach a USGS map, scale 1"x2000", and a property tax map showing well location referenced to established property boundaries.)

3. (a) PROPOSED WORK:
   ( ) Drill New Well
   ( ) Modify Existing Well
   ( ) Abandon/Seal
   ( ) Modify Pump
   ( ) Deepen
   ( ) Install New Pump
   ( ) Is this well part of a battery of wells? ( ) Yes
   ( ) No
   (Briefly describe and fill in the diagram on the back of this form.)

4. PROPOSED PUMP INFORMATION:
   Rated Pump Capacity: 3,500 gallons per minute
   Motor: Centrifugal
   Pump Type: Deep Well Turbine
   Rated Horsepower: 50 HP
   If Pump Replacement, Existing Pump Capacity: 3,700 gallons per minute

5. PROPOSED USE:
   ( ) Domestic (including homes, stores, etc.)
   ( ) Irrigation (crop)
   ( ) Military
   ( ) Industrial
   ( ) Other (explain)

6. (a) PROPOSED AMOUNT OF WITHDRAWAL:
   5.3 Million gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   ( ) Flow-meter
   ( ) Orifice Plate
   ( ) Open-pipe

7. PENDING ACTIONS:
   ( ) CDUA
   ( ) SMA
   ( ) EIS
   ( ) EA
   ( ) NONE
   Completion Date:

8. REMARKS, EXPLANATIONS:
   Well drilled in 1946 has extensive casing deterioration.
   Well video and interval water sampling have indicated the well casing no longer isolating upper coral and sand layers from basal formations. Upper water in
   (if more space is needed, continue on back)

I understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within two (2) years of the
approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 30 days after the completion date of the permit
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 at
not guarantee the pump capacity or future use up to the permitted pump capacity.

Well Owner: Maui Electric Co. Ltd.
Landowner: Maui Electric Co. Ltd.
Contractor: Roscoe Moss Hawaii, Inc.

Signature: Maile Electric Co. Ltd.
Date: 9/30/96

For Official Use Only:
Date Received
Date Accepted
Field Checked By
Date
Longitude
Latitude
Aquifer System Name
State Well No.

11/10/96 WCPN Fl
8. Remarks, Explanations (cont'd). Coral formations are believed to be a source of contaminants and video log shows a sizable flow of water downward from coral stratas. A new pump will be installed to fit smaller 20" casing installed at 0-40 ft. interval. New casing installed will make grouting of annulas possible and new 15" open hole will be drilled till 3,500 gpm capacity is obtained.

9. PROPOSED WELL SECTION

**MODIFICATION**

<table>
<thead>
<tr>
<th>Elevation at top of casing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approx. 10 ft. msl.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Ground Elevation</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 ft. msl.</td>
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</table>

<table>
<thead>
<tr>
<th>Cement Grout</th>
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</thead>
<tbody>
<tr>
<td>185 ft.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Rock Packing</th>
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<tbody>
<tr>
<td>NA ft.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Hole Diameter</th>
</tr>
</thead>
</table>
| 0-40' 20 in.
20 in. 47-185' |

<table>
<thead>
<tr>
<th>Total Depth</th>
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<tbody>
<tr>
<td>250 ft.</td>
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<table>
<thead>
<tr>
<th>Solid Casing</th>
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</thead>
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<tr>
<td><strong>Steel</strong></td>
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<tr>
<td>Length</td>
</tr>
<tr>
<td>185 ft.</td>
</tr>
<tr>
<td>Diameter</td>
</tr>
</tbody>
</table>
| 0-40' 20 in.
40-185' 16 in. |
| Wall thickness |
| .312 in.     |

<table>
<thead>
<tr>
<th>Casing:</th>
<th>□ Perforated</th>
<th>□ Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td></td>
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<tr>
<td>Length</td>
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<tr>
<td>Diameter</td>
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</tr>
<tr>
<td>Wall thickness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Openings</td>
<td>sq. in./F.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Open Hole</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
</tr>
<tr>
<td>65 ft.</td>
</tr>
<tr>
<td>Diameter</td>
</tr>
<tr>
<td>15 in.</td>
</tr>
</tbody>
</table>

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

DATE: 8/5/98
TO: State Water Commission
ATTN: Glen Bauer
FROM: Tracy Runnels
REF: Maui Elec. Wells Kahului Well A

5427-01
## ANALYSIS REPORT

**WATER QUALITY RESULTS (In μM) FROM MAUI ELECTRIC CIRCULATING WATER WELL #141**

**Sample Date:** 5/19/98

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>Depth (ft)</th>
<th>PO4  (μM)</th>
<th>NO3+NO2  (μM)</th>
<th>NH4  (μM)</th>
<th>DON  (μM)</th>
<th>TN   (μM)</th>
<th>SI   (μM)</th>
<th>TDS (mg/L)</th>
<th>Sal  (ppt)</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30</td>
<td>6.50</td>
<td>1.50</td>
<td>981.3</td>
<td>298.00</td>
<td>1279</td>
<td>448.3</td>
<td>3830</td>
<td>4.376</td>
<td>7.57</td>
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<td>2</td>
<td>50</td>
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<td>0.75</td>
<td>981.3</td>
<td>388.25</td>
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<td>6.057</td>
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<tr>
<td>3</td>
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<td>6.25</td>
<td>0.50</td>
<td>921.0</td>
<td>297.50</td>
<td>1226</td>
<td>448.8</td>
<td>5500</td>
<td>6.372</td>
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<td>28.590</td>
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</table>

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>Depth (ft)</th>
<th>PO4  (μg/L)</th>
<th>NO3+NO2  (μg/L)</th>
<th>NH4  (μg/L)</th>
<th>DON  (μg/L)</th>
<th>TN   (μg/L)</th>
<th>SI   (μg/L)</th>
<th>TDS (μg/L)</th>
<th>Sal  (ppt)</th>
<th>pH</th>
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<tbody>
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<td>3185.36</td>
<td>5586</td>
<td>19687</td>
<td>19810</td>
<td>28.590</td>
<td>7.24</td>
</tr>
</tbody>
</table>

**Laboratory Analyses performed by Marine Analytical Specialists- Honolulu, HI**

**Abbreviations:**
- NO3+NO2 = nitrate+nitrite
- PO4 = orthophosphate
- NH4 = ammonium-N
- DON = dissolved organic nitrogen
- TN = total nitrogen
- SI = silicate
- TDS = Total Dissolved Solids
- SAL = salinity in parts per thousand (ppt)
Well | Maui Earth Yrs. Drilled | Casing Dia. | Casing Depth | T.D. \\
--- | --- | --- | --- | --- \\
A | 1946 | 24" | 163 | 179 \\
B | 1947 | 24" | 200? | 200? \\
C | 1949 | 24" | 232 | 237 \\
D | 1949 | 24" | 282 | 245 \\
E | 1953 | 24" | 120 | 257 \\
F | 1953 | 24" | 101 | 250 \\
G | 1953 | 24" | 99 | 255 \\

T.D. Range: 179 - 257 
Casing Range: 99? - 232

Are Pump Data's Available? esp. dimension, type, capacity 
Age of Wells approximating expected life term 
Is quality or condition your purpose? 
Is a new well needed for added capacity? 
Can I schedule a short meeting/site visit? 
Are you interested in an investigation proposal? 
What Wells can be taken off line, one of line? 
How are you disposing of Production Water are you outfall, incidental S.T.P. inj. water? 

Wellcome opportunity to climb on board and negotiate well investigation & Upgrade. 
Well #5 16" | 1884 | 388 
Well #6 16" | 186 | 391 
Well #7 16" | 185 | 390 
Well #8 16" | 193 | 390
REGISTRATION OF WELL AND DECLARATION OF WATER USE

INSTRUCTIONS: Please type or print. If information is not available or not applicable, indicate as N/A. Fill out as completely as possible, sign, and file form with the Division of Water Resource Management, P.O. Box 373, Honolulu, Hawaii 96809. Phone 548-3048 or 548-7643 for assistance.

BATTERY OF WELLS: For a battery of wells, on the surface, in a tunnel, or in a shaft, submit a registration form for each well together with a single map or plot plan showing layout of wells.

STATE WELL NO.: 5421-01
WELL NAME OR DESIGNATION: MAUI ELECTRIC A
ISLAND: MAUI

SOURCE OR STATION NAME: 

A. WELL OPERATOR
Firm name: MAUI ELECTRIC CO. LTD.
Contact person: 
Address: P.O. BOX 399
KAILUAU, MAUI, HAWAI'I
Zip: 96731 Phone: 

B. OWNER OF WELL SITE
Firm name: 
Contact person: Stan Keywaga
Address: 
Zip: Phone: 871-6461

C. WELL LOCATION
Tax Map Key: 3-7-11-20 Town, Place, District: KAILUAU
Attach USGS "Quad" map (scale 1:24,000), tax map, or other map showing the well location.

D. WELL DATA
For Drilled Wells, submit "as-built" drawing, driller's log, and pump test results, and complete items below. For Tunnels and Shafts, submit construction drawings, plot plan, or sketch map.

Ground elevation (Mean sea level): 12 ft.
Reference point (Used to measure depth to water): 
Elevation: 7'-8" ft.
Description: 

Depth to water (below reference point): 7'-6" ft.
Maximum recorded chloride: 18,000 ppm
Minimum recorded chloride: 18,000 ppm
Maximum chloride in 1987: 18,000 ppm

Year drilled or constructed: 1947
Well contractor: 
Casing diameter: 14 in.
Solid casing depth (Below ground): 10 ft.
Perforated casing depth (Below ground): 250 ft.
Total depth of well: 

E. INSTALLED PUMP DATA
Pump type: Vertical shaft Submersible Centrifugal Other (specify): 
Power: Diesel, ___ HP Gas, ___ HP Electric, 50 HP Other (specify): 
Pump capacity: ___ gallons per minute
Pump installation contractor: 

--- (continued over)---

For Official Use Only:
Date received: 1-25-99 Date accepted: 
Field checked by: Date: Latitupe: 20° 54' 01" Hydrologic Unit: 
Comments: Longitude: 156° 21' 29" State Well No.: 5421-01

References: Hawaii Revised Statutes, Chapter 174C.
Hawaii Administrative Rules, Chapters 13-167 to 13-171.
NOTE: The purpose of the Declaration of Water Use is to obtain information necessary for the management of the State’s water resources. The Declaration does not confer a legal right to water or its use.

Water use data are recorded: □ Daily □ Weekly □ Monthly □ Other (Describe):

Method of measurement: □ Flow Meter □ Orifice □ Other (Describe):

Quantity of Use (Report metered or estimated monthly water use from the well described on the reverse side of this form, for the calendar years 1983 through 1987. For a battery of wells which are not individually metered, but which are connected to a single meter or other measuring device, report total use from the battery):

WATER USE, IN GALLONS x 1000

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>77,205</td>
<td>157,741.0</td>
<td>145,909.5</td>
<td>146,742.0</td>
<td>141,136.5</td>
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<tr>
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<td>112,917.5</td>
<td>146,520.0</td>
<td>144,779.5</td>
<td>101,791.0</td>
<td>152,710.5</td>
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<tr>
<td>March</td>
<td>151,792.5</td>
<td>156,510.0</td>
<td>141,691.5</td>
<td>100,031.0</td>
<td>154,945.0</td>
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<td>April</td>
<td>149,517.0</td>
<td>150,871.5</td>
<td>142,928.0</td>
<td>138,361.5</td>
<td>144,964.0</td>
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<tr>
<td>May</td>
<td>30,124.5</td>
<td>157,120.5</td>
<td>145,077.0</td>
<td>124,925.5</td>
<td>153,457.5</td>
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<tr>
<td>June</td>
<td>112,117.0</td>
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<td>145,617.5</td>
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<td>137,528.0</td>
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<tr>
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<td>123,154.5</td>
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<td>131,019.0</td>
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<tr>
<td>November</td>
<td>150,238.5</td>
<td>146,076.0</td>
<td>133,755.0</td>
<td>127,364.0</td>
<td>121,323.0</td>
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<tr>
<td>December</td>
<td>162,922.0</td>
<td>148,240.5</td>
<td>136,123.0</td>
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<td>1,544,046.0</td>
<td>1,572,027.0</td>
<td>1,640,325.0</td>
</tr>
</tbody>
</table>

Minimum day’s use: 9325 gallons
Maximum day’s use: 5,328 gallons

Typical times of usage: 24 hours/day

Type of Use (Check all category boxes that apply and provide additional information as indicated):

Category: □ Municipal (Including resorts, hotels, businesses)
□ Domestic (Systems serving 25 people or less)
□ Irrigation
□ Industrial
□ Military
□ Other

Additional Information

Number of service connections: ______________________

Acres Irrigated: ______________________

Crop(s): □ Sugar □ Pineapple
□ Other (specify): ______________________

Non-Crop: □ Landscape □ Golf Course
□ Other (specify): ______________________

Method: □ Drip □ Furrow □ Sprinkler
□ Cooling □ Manufacturing □ Other (specify): ______________________

Specify (livestock, aquaculture, etc.): ______________________

I declare that the contents of the above Declaration of Water Use are, to the best of my knowledge and belief, true, correct, and complete.

Water User’s Signature: ______________________ Date: ______________________

Printed Name: ______________________

Firm or Title (Well Operator, etc.): ______________________
REGISTRATION OF WELL
AND DECLARATION OF WATER USE

INSTRUCTIONS: Please type or print. If information is not available or not applicable, indicate as N/A. Fill out as completely as possible, sign, and file form with the Division of Water Resource Management, P.O. Box 373, Honolulu, Hawaii 96809. Phone 548-3948 or 548-7543 for assistance.

BATTERY OF WELLS: For a battery of wells, on the surface, in a tunnel, or in a shaft, submit a registration form for each well together with a single map or plot plan showing layout of wells.

STATE WELL NO.: 5471-02
WELL NAME OR DESIGNATION: MAUI ELECTRIC B
ISLAND: MAUI

A. WELL OPERATOR
Firm name: MAUI ELECTRIC CO. LTD.
Contact person: 
Address: P.O. Box 396
Kahului, Maui, Hawaii
Zip: 96732 Phone: 

B. OWNER OF WELL SITE
Firm name: Same as Operator
Contact person: Stan Kiyohara
Address: 
Zip: _____ Phone: 871-8441

C. WELL LOCATION
Tax Map Key: 3-7-11-20 Town, Place, District: Kahului
Attach USGS “Quad” map (scale 1:24,000), tax map, or other map showing the well location.

D. WELL DATA
For Drilled Wells, submit “as-built” drawing, driller’s log, and pump test results, and complete items below. For Tunnels and Shafts, submit construction drawings, plot plan, or sketch map.

Ground elevation (Mean sea level): 12 ft.
Reference point (Used to measure depth to water):
Elevation: + 7' - 8” ft.
Description: 

Depth to water (Below reference point): 7' - 0” ft.
Maximum recorded chloride: 18,000 ppm
Minimum recorded chloride: 18,000 ppm
Maximum chloride in 1987: 18,000 ppm

Year drilled or constructed: 1947
Well contractor: 
Casing diameter: 14 in.
Solid casing depth (Below ground): 108 ft.
Perforated casing depth (Below ground): ft.
Total depth of well: 250 ft.
Minimum chloride in 1987: 18,000 ppm

E. INSTALLED PUMP DATA
Pump type: Vertical shaft
Power: Diesel, 50 HP
Pump capacity: _______ gallons per minute
Pump installation contractor: 

... (continued over)
F. DECLARATION OF WATER USE

NOTE: The purpose of the Declaration of Water Use is to obtain information necessary for the management of the State's water resources. The Declaration does not confer a legal right to water or its use.

Water use data are recorded: □ Daily □ Weekly □ Monthly

□ Other (describe):

Method of measurement: □ Flow Meter □ Orifice

□ Other (describe):

Quantity of Use (Report metered or estimated monthly water use from the well described on the reverse side of this form, for the calendar years 1983 through 1987. For a battery of wells which are not individually metered, but which are connected to a single meter or other measuring device, report total use from the battery):

WATER USE, IN GALLONS x 1000

<table>
<thead>
<tr>
<th></th>
<th></th>
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<tbody>
<tr>
<td>January</td>
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<tr>
<td>February</td>
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<tr>
<td>ANNUAL</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Minimum day's use: ___________ gallons   Maximum day's use: ___________ gallons

Typical times of usage: ____________________________

Type of Use (Check all category boxes that apply and provide additional information as indicated):

Category

□ Municipal (including resorts, hotels, businesses)

□ Domestic (systems serving 25 people or less)

□ Irrigation

□ Industrial

□ Military

□ Other

Additional Information

Number of service connections: ____________________

Acres Irrigated: ____________________

Crop(s): □ Sugar □ Pineapple

□ Other (specify): ____________________

Non-Crop: □ Landscape □ Golf Course

□ Other (specify): ____________________

Method: □ Drip □ Furrow □ Sprinkler

□ Cooling □ Manufacturing □ Mill

□ Other (specify): ____________________

Specify (livestock, aquaculture, etc.): ____________________

I declare that the contents of the above Declaration of Water Use are, to the best of my knowledge and belief, true, correct, and complete.

Water User's Signature: ____________________ Date: ___________

Printed Name: ____________________

Firm or Title (Well Operator, etc.): ____________________
REGISTRATION OF WELL AND DECLARATION OF WATER USE

INSTRUCTIONS: Please type or print. If information is not available or not applicable, indicate as N/A. Fill out as completely as possible, sign, and file form with the Division of Water Resource Management, P.O. Box 373, Honolulu, Hawaii 96809. Phone 548-3648 or 548-7543 for assistance.

BATTERY OF WELLS: For a battery of wells, on the surface, in a tunnel, or in a shaft, submit a registration form for each well together with a single map or plot plan showing layout of wells.

STATE WELL NO.: 5A17-03
WELL NAME OR DESIGNATION: MAUI ELECTRIC
ISLAND: MAUI

A. WELL OPERATOR
Firm name: MAUI ELECTRIC CO., LTD
Contact person: ____________________
Address: P.O. BOX 948
Kahului, Maui, Maui
Zip: 96732 Phone: ____________

B. OWNER OF WELL SITE
Firm name: Same as Operator
Contact person: Stan Kiyosaka
Address: ____________________________
Zip: _______ Phone: 871-8461

C. WELL LOCATION
Tax Map Key: 3-7-11-20 Town, Place, District: Kahului
Attach USGS "Quad" map (scale 1:24,000), tax map, or other map showing the well location.

D. WELL DATA
For Drilled Wells, submit "as-built" drawing, driller's log, and pump test results, and complete items below.
For Tunnels and Shafts, submit construction drawings, plot plan, or sketch map.

Ground elevation (Mean sea level): 12 ft.
Reference point (used to measure depth to water):
Elevation: _______ ft.
Description: __________________________

Depth to water (Below reference point): 7-8 ft.
Maximum recorded chloride: 18,000 ppm
Minimum recorded chloride: 18,000 ppm
Maximum chloride in 1987: 18,000 ppm

E. INSTALLED PUMP DATA
Pump type: Vertical shaft
Power: Diesel, 50 HP
Pump capacity: gallons per minute
Pump installation contractor: ____________________________

... (continued over)

For Official Use Only:
Date received: 1-25-94 Date accepted: ____________
Field checked by: _______ Date: ____________
Latitude: 20° 54' 01" Hydrologic Unit: 5A02-13-11-12
Longitude: 156° 21' 54" State Well No.: 5A17-03

References: Hawaii Revised Statutes, Chapter 174.
Hawaii Administrative Rules, Chapters 13-167 to 13-171.
F. DECLARATION OF WATER USE

NOTE: The purpose of the Declaration of Water Use is to obtain information necessary for the management of the State's water resources. The Declaration does not confer a legal right to water or its use.

Water use data are recorded: ☑ Daily ☐ Weekly ☐ Monthly
☐ Other (describe):

Method of measurement: ☐ Flow Meter ☑ Orifice
☐ Other (describe):

Quantity of Use (Report metered or estimated monthly water use from the well described on the reverse side of this form, for the calendar years 1983 through 1987. For a battery of wells which are not individually metered, but which are connected to a single meter or other measuring device, report total use from the battery.)

WATER USE, IN GALLONS x 1000

<table>
<thead>
<tr>
<th></th>
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<td>141,137.5</td>
<td>144,910.5</td>
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<td>131,912.5</td>
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<td>42,290.5</td>
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<td>106,671.0</td>
<td>141,127.0</td>
<td>150,294.0</td>
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<td>147,790.4</td>
<td>133,755.0</td>
<td>137,140.5</td>
<td>129,870.0</td>
<td>140,347.0</td>
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<td>May</td>
<td>125,753.0</td>
<td>147,284.5</td>
<td>137,025.0</td>
<td>140,026.5</td>
<td>154,179.0</td>
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<td>141,241.5</td>
<td>137,342.5</td>
<td>137,751.0</td>
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<td>149,627.0</td>
<td>134,577.5</td>
<td>141,906.5</td>
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<tr>
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<td>140,157.5</td>
<td>140,026.5</td>
<td>143,523.0</td>
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<td>132,259.5</td>
<td>152,247.5</td>
<td>135,430.0</td>
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<td>October</td>
<td>149,121.5</td>
<td>162,106.5</td>
<td>134,762.0</td>
<td>139,023.0</td>
<td>143,634.0</td>
</tr>
<tr>
<td>November</td>
<td>149,174.5</td>
<td>139,241.5</td>
<td>129,795.5</td>
<td>134,199.0</td>
<td>136,271.0</td>
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<td>December</td>
<td>132,413.0</td>
<td>132,645.0</td>
<td>134,254.5</td>
<td>134,244.5</td>
<td>141,382.0</td>
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<td>1,771,261.0</td>
<td>1,533,840.0</td>
<td>1,575,081.5</td>
<td>1,716,060.0</td>
</tr>
</tbody>
</table>

Minimum day's use: 8325 gallons
Typical times of usage: 24 hours
Maximum day's use: 5,329 gallons

Type of Use (check all category boxes that apply and provide additional information as indicated):

☐ Municipal (including resort, hotels, businesses)
☐ Domestic (systems serving 25 people or less)
☐ Irrigation
☐ Industrial
☐ Military
☐ Other

Number of service connections: __________________________

Acres Irrigated: __________________________
Crop(s): ☑ Sugar ☐ Pineapple
☐ Other (specify): __________________________
Non-Crop: ☑ Landscape ☐ Golf Course
☐ Other (specify): __________________________
Method: ☑ Drip ☐ Furrow ☐ Sprinkler
☐ Cooling ☐ Manufacturing ☐ Mill
☐ Other (specify): __________________________

☐ Other (specify): __________________________

I declare that the contents of the above Declaration of Water Use are, to the best of my knowledge and belief true, correct, and complete.

Water User's Signature: __________________________ Date: __________________________

Printed Name: __________________________
REGISTRATION OF WELL
AND DECLARATION OF WATER USE

INSTRUCTIONS: Please type or print. If information is not available or not applicable, indicate as N/A. Fill out as completely as possible, sign, and file form with the Division of Water Resource Management, P.O. Box 379, Honolulu, Hawaii 96809. Phone 548-3948 or 548-7543 for assistance.

BATTERY OF WELLS: For a battery of wells, on the surface, in a tunnel, or in a shaft, submit a registration form for each well together with a single map or plot showing layout of wells.

STATE OF HAWAII
COMMISSION ON WATER RESOURCE MANAGEMENT
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF WATER RESOURCE MANAGEMENT

STATE WELL NO.: 6471-04
WELL NAME OR DESIGNATION: MAUI ELECTRIC
ISLAND: MAUI

SOURCE OR STATION NAME (For a battery of wells):

A. WELL OPERATOR
Firm name: MAUI ELECTRIC CO. LTD.
Contact person: 
Address: P.O. BOX 948
KAHULUI, MAUI, HAWAII
Zip: 96732 Phone: 

B. OWNER OF WELL SITE
Firm name: SAME AS OPERATOR
Contact person: 
Address: 
Zip: Phone: 871-8461

C. WELL LOCATION
Tax Map Key: 3-7-11-20 Town, Place, District: KAHULUI
Attach USGS "Quad" map (scale 1:24,000), tax map, or other map showing the well location.

D. WELL DATA
For Drilled Wells, submit "as-built" drawing, driller's log, and pump test results, and complete items below. For Tunnels and Shafts, submit construction drawings, plot plan, or sketch map.

Ground elevation (Mean sea level): 12 ft.
Reference point (Used to measure depth to water):
Elevation: _________ ft.
Description: __________________

Depth to water (Below reference point): 7-8 ft.
Maximum recorded chloride: 18,000 ppm
Minimum recorded chloride: 18,000 ppm
Maximum chloride in 1987: 18,000 ppm

Well contractor: __________________
Casing diameter: 14 in.
Solid casing depth (Below ground): 10 ft.
Perforated casing depth (Below ground): 2 ft.
Total depth of well: 780 ft.
Minimum chloride in 1987: 18,000 ppm

E. INSTALLED PUMP DATA
Pump type: ☐ Vertical shaft ☐ Submersible ☐ Centrifugal ☐ Other (specify):
Power: ☐ Diesel, ___ HP ☐ Gas, ___ HP ☐ Electric, ___ HP ☐ Other (specify):
Pump capacity: ______ gallons per minute
Pump installation contractor: __________________

(continued over)

For Official Use Only:
Date received: 12-29 Date accepted: __________
Field checked by: __________________ Date: __________ Latitude: 20° 54' 01" Hydrologic Unit:
Comments: _______________ Longitude: 156° 27' 54" State Well No.: 6471-04

References: Hawaii Revised Statutes, Chapter 174C.
Hawaii Administrative Rules, Chapters 13-167 to 13-171.
F. DECLARATION OF WATER USE

NOTE: The purpose of the Declaration of Water Use is to obtain information necessary for the management of the State's water resources. The Declaration does not confer a legal right to water or its use.

Water use data are recorded: Daily  Weekly  Monthly
Other (describe): ____________________

Method of measurement: Flow Meter  Orifice
Other (describe): ____________________

Quantity of Use (Report metered or estimated monthly water use from the well described on the reverse side of this form, for the calendar years 1983 through 1987. For a battery of wells which are not individually metered, but which are connected to a single meter or other measuring device, report total use from the battery):

<table>
<thead>
<tr>
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<td>February</td>
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<td>November</td>
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<tr>
<td>December</td>
<td></td>
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</tr>
<tr>
<td>ANNUAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Minimum day's use: __________________ gallons  Maximum day's use: __________________ gallons
Typical times of usage: __________________

Type of Use (Check all category boxes that apply and provide additional information as indicated):

- Municipal (including resorts, hotels, businesses)
- Domestic (systems serving 25 people or less)
- Irrigation
- Crop(s): Sugar  Pineapple
  Other (specify): ____________________
- Non-Crop: Landscape  Golf Course
  Other (specify): ____________________
- Method: Drip  Furrow  Sprinkler
- Industrial
  Cooling  Manufacturing  Mill
  Other (specify): ____________________
- Military
- Other
  Specify (livestock, aquaculture, etc.): ____________________

I declare that the contents of the above Declaration of Water Use are, to the best of my knowledge and belief, true, correct, and complete.

Water User's Signature: ____________________  Date: ____________
Printed Name: ____________________
Firm or Title (Well Op or, etc.): ____________________
STATE WELL NO.: 6A27-05
WELL NAME OR DESIGNATION: MAUI ELECTRIC E

A. WELL OPERATOR
Firm name: MAUI ELECTRIC CO. LTD
Contact person: STAN HAYASHI
Address: P.O. BOX 2998
KANILU, MAUI, HAWAII
Zip: 96720 Phone: 871-8461

B. OWNER OF WELL SITE
Firm name: MAUI ELECTRIC CO. LTD
Contact person: STAN HAYASHI
Address: P.O. BOX 2998
KANILU, MAUI, HAWAII
Zip: 96720 Phone: 871-8461

C. WELL LOCATION
Tax Map Key: 3-7-11-20 Town, Place, District: KANILU
Attach USGS "Quad" map (scale 1:24,000), tax map, or other map showing the well location.

D. WELL DATA
For Drilled Wells, submit "as-built" drawing, driller’s log, and pump test results, and complete items below.
For Tunnels and Shafts, submit construction drawings, plot plan, or sketch map.

Ground elevation (Mean sea level): 12 ft.
Reference point (Used to measure depth to water): ___________ ft.
Elevation: ___________ ft.
Description: ___________

Depth to water (Below reference point): ___________ ft.
Maximum recorded chloride: 18,000 ppm
Minimum recorded chloride: 18,000 ppm
Maximum chloride in 1987: 18,000 ppm

E. INSTALLED PUMP DATA
Pump type: Vertical shaft Submersible
Centrifugal Other (specify):

Power: Diesel, 50 HP Gas, 50 HP Electric, 50 HP Other (specify):

Pump capacity: ________ gallons per minute
Pump installation contractor: ____________________________

For Official Use Only:
Date received: 1-25-81 Date accepted: ________
Field checked by: ________ Date: ________ Latitude: 20°GA 01" Hydrologic Unit:
Comments: ____________________

State Well No.: 6A27-05

References: Hawaii Revised Statutes, Chapter 174C.
Hawaii Administrative Rules, Chapters 13-167 to 13-171.
F. DECLARATION OF WATER USE

NOTE: The purpose of the Declaration of Water Use is to obtain information necessary for the management of the State's water resources. The Declaration does not confer a legal right to water or its use.

Water use data are recorded: [ ] Daily  [ ] Weekly  [ ] Monthly

Method of measurement: [ ] Flow Meter  [ ] Orifice

[ ] Other (describe):

Quantity of Use (Report metered or estimated monthly water use from the well described on the reverse side of this form, for the calendar years 1983 through 1987. For a battery of wells which are not individually metered, but which are connected to a single meter or other measuring device, report total use from the battery):

WATER USE, IN GALLONS x 1000

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
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<td>January</td>
<td>159,346.0</td>
<td>162,450.0</td>
<td>165,162.0</td>
<td>141,044.0</td>
<td>157,573.0</td>
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<tr>
<td>February</td>
<td>73,119.0</td>
<td>146,557.0</td>
<td>149,114.0</td>
<td>146,446.0</td>
<td>143,967.0</td>
</tr>
<tr>
<td>March</td>
<td>119,473.0</td>
<td>163,355.0</td>
<td>162,180.0</td>
<td>163,096.0</td>
<td>163,910.0</td>
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<tr>
<td>April</td>
<td>153,527.0</td>
<td>159,740.0</td>
<td>157,657.0</td>
<td>142,524.0</td>
<td>158,240.0</td>
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<td>143,783.0</td>
<td>165,167.0</td>
<td>160,549.0</td>
<td>110,179.0</td>
<td>155,622.0</td>
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<tr>
<td>June</td>
<td>147,598.0</td>
<td>159,344.0</td>
<td>123,691.0</td>
<td>35,335.0</td>
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<td>July</td>
<td>109,261.0</td>
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<td>44,141.0</td>
<td>102,343.0</td>
<td>77,294.0</td>
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<tr>
<td>August</td>
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<td>135,087.0</td>
<td>161,505.0</td>
<td>163,336.0</td>
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<tr>
<td>September</td>
<td>133,652.0</td>
<td>151,915.0</td>
<td>158,841.0</td>
<td>6,327.0</td>
<td>59,540.0</td>
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<td>165,180.0</td>
<td>110,020.0</td>
<td>110,432.0</td>
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<td>159,249.0</td>
<td>143,745.0</td>
<td>157,271.0</td>
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<td>December</td>
<td>162,446.0</td>
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<td>159,211.0</td>
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<td>161,283.0</td>
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<td>1,776,512.0</td>
<td>1,587,044.0</td>
<td>1,708,293.0</td>
</tr>
</tbody>
</table>

Minimum day's use: 296 m60 gallons
Typical times of usage: 24 hrs/day

Maximum day's use: 5,328 m60 gallons

Type of Use (check all category boxes that apply and provide additional information as indicated):

- [ ] Municipal (including resorts, hotels, businesses)
- [ ] Domestic (systems serving 25 people or less)
- [ ] Irrigation
- [ ] Industrial
- [ ] Military
- [ ] Other

Additional Information

Number of service connections: ____________________________

Acres irrigated: ____________________________

Crop(s): [ ] Sugar  [ ] Pineapple
[ ] Other (specify): ____________________________

Non-Crop: [ ] Landscape  [ ] Golf Course
[ ] Other (specify): ____________________________

Method: [ ] Drip  [ ] Furrow  [ ] Sprinkler
[ ] Cooling  [ ] Manufacturing  [ ] Mill
[ ] Other (specify): ____________________________

Specify (livestock, aquaculture, etc.): ____________________________

I declare that the contents of the above Declaration of Water Use are, to the best of my knowledge and belief, true, correct, and complete.

Water User's Signature: ____________________________ Date: ____________________________

Printed Name: ____________________________
REGISTRATION OF WELL AND DECLARATION OF WATER USE

INSTRUCTIONS: Please type or print. If information is not available or not applicable, indicate as N.A. Fill out as completely as possible, sign, and file form with the Division of Water Resource Management, P.O. Box 373, Honolulu, Hawaii 96809. Phone: 548-3948 or 548-7543 for assistance.

BATTERY OF WELLS: For a battery of wells, on the surface, in a tunnel, or in a shaft, submit a registration form for each well together with a single map or plot plan showing layout of wells.

STATE WELL NO.: 5421-06
WELL NAME OR DESIGNATION: MAUI ELECTRIC
ISLAND: MAUI
SOURCE OR STATION NAME (For a battery of wells):

A. WELL OPERATOR
Firm name: MAUI ELECTRIC CO. LTD.
Contact person: [Name]
Address: P.O. BOX 798
KALUULA, MAUI, HI 96764
Zip: 96764 Phone: [Number]

B. OWNER OF WELL SITE
Firm name: SOME AS OPERATOR
Contact person: [Name]
Address: [Address]
Zip: [Zip] Phone: [Phone]

C. WELL LOCATION
Tax Map Key: 3-7-11-20 Town, Place, District: KALUULA
Attach USGS "Quad" map (scale 1:24,000), tax map, or other map showing the well location.

D. WELL DATA
For Drilled Wells, submit "as-built" drawing, driller's log, and pump test results, and complete items below.
For Tunnels and Shafts, submit construction drawings, plot plan, or sketch map.

<table>
<thead>
<tr>
<th>Field Description</th>
<th>Value</th>
</tr>
</thead>
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<td>Ground elevation (Mean sea level)</td>
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<td>Reference point (Used to measure depth to water): Elevation</td>
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<tr>
<td>Description</td>
<td>ft</td>
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<tr>
<td>Depth to water (below reference point):</td>
<td>ft</td>
</tr>
<tr>
<td>Maximum recorded chloride:</td>
<td>18,000 ppm</td>
</tr>
<tr>
<td>Minimum recorded chloride:</td>
<td>18,000 ppm</td>
</tr>
<tr>
<td>Maximum chloride in 1987:</td>
<td>18,000 ppm</td>
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<tr>
<td>Year drilled or constructed:</td>
<td>1953</td>
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<td>Well contractor:</td>
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<tr>
<td>Casing diameter:</td>
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<tr>
<td>Solid casing depth (below ground):</td>
<td>108 ft</td>
</tr>
<tr>
<td>Perforated casing depth (below ground):</td>
<td>ft</td>
</tr>
<tr>
<td>Total depth of well:</td>
<td>260 ft</td>
</tr>
<tr>
<td>Minimum chloride in 1987:</td>
<td></td>
</tr>
</tbody>
</table>

E. INSTALLED PUMP DATA
Pump type: [ ] Vertical shaft [ ] Submersible [ ] Centrifugal [ ] Other (specify): [ ]
Power: [ ] Diesel, ____ HP [ ] Gas, ____ HP [ ] Electric, ____ HP [ ] Other (specify): [ ]
Pump capacity: ______ gallons per minute
Pump installation contractor: [ ]

For Official Use Only:
Date received: 1-31-84 Date accepted: [ ]
Field checked by: [ ] Date: [ ]
Latitude: 20° 54' 0" Hydrologic Unit: [ ]
Comments: [ ]
State Well No.: 5421-06

References: Hawaii Revised Statutes, Chapter 174C.
Hawaii Administrative Rules, Chapters 13-167 to 13-171.
F. DECLARATION OF WATER USE

NOTE: The purpose of the Declaration of Water Use is to obtain information necessary for the management of the State's water resources. The Declaration does not confer a legal right to water or its use.

Water use data are recorded: ☑ Daily ☐ Weekly ☐ Monthly
☐ Other (Describe): _____________________________

Method of measurement: ☐ Flow Meter ☑ Orifice
☐ Other (Describe): _____________________________

Quantity of Use (Report metered or estimated monthly water use from the well described on the reverse side of this form, for the calendar years 1983 through 1987. For a battery of wells which are not individually metered, but which are connected to a single meter or other measuring device, report total use from the battery):

WATER USE, IN GALLONS x 1000

<table>
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<tbody>
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Minimum day's use: ___________ gallons Maximum day's use: ___________ gallons

Typical times of usage: ____________________________________________

Type of Use (Check all category boxes that apply and provide additional information as indicated):

- □ Municipal (including resorts, hotels, businesses)
- □ Domestic (systems serving 25 people or less)
- □ Irrigation
- □ Industrial
- □ Military
- □ Other

Additional Information

Number of service connections: _____________________________

Acres Irrigated:
- □ Sugar
- □ Pineapple
- □ Other (specify): _____________________________

Crop(s):
- □ Sugar
- □ Pineapple
- □ Other (specify): _____________________________

Non-Crop:
- □ Landscape
- □ Golf Course
- □ Other (specify): _____________________________

Method:
- □ Drip
- □ Furrow
- □ Sprinkler

- □ Cooling
- □ Manufacturing
- □ Mill
- □ Other (specify): _____________________________

Specify (livestock, aquaculture, etc.): _____________________________

I declare that the contents of the above Declaration of Water Use are, to the best of my knowledge and belief, true, correct, and complete.

Water User's Signature: _____________________________ Date: ___________
Printed Name: ____________________________________________
Firm or Title (Well Oper. etc.): _____________________________
## REGISTRATION OF WELL AND DECLARATION OF WATER USE

**INSTRUCTIONS:** Please type or print. If information is not available or not applicable, indicate as N/A. Fill out as completely as possible, sign, and file form with the Division of Water Resource Management, P.O. Box 373, Honolulu, Hawaii 96809. Phone 548-3948 or 548-7543 for assistance.

**BATTERY OF WELLS:** For a battery of wells, on the surface, in a tunnel, or in a shaft, submit a registration form for each well together with a single map or plot plan showing layout of wells.

### A. WELL OPERATOR

| Firm name: | **MAUI ELECTRIAL CO LTD.** |
| Contact person: | |
| Address: | P.O. Box 348 |
| Zip: | 96772 |

### B. OWNER OF WELL SITE

| Firm name: | **Sure Ac Operator** |
| Contact person: | Stan Kiyohara |
| Address: | |
| Zip: | |
| Phone: | 871-6461 |

### C. WELL LOCATION

- **Tax Map Key:** 3-7-11-20
- **Town, Place, District:** KAHULUI

Attach USGS "Quad" map (scale 1:24,000), tax map, or other map showing the well location.

### D. WELL DATA

#### D.1. For Drilled Wells

- **Ground elevation (Mean sea level):** 12 ft.
- **Year drilled or constructed:** 1965
- **Casing diameter:** 12 in.

#### D.2. For Tunnels and Shafts

- **Perforated casing depth (Below ground):** 108 ft.
- **Total depth of well:** 850 ft.

### E. INSTALLED PUMP DATA

| Pump type: | Vertical shaft |
| Power: | Diesel, 50 HP |
| Pump capacity: | 50 gallons per minute |

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**For Official Use Only:**

- **Date received:** 1-25-99
- **Date accepted:** 
- **Field checked by:** 
- **Date:** 
- **Latitude:** 20° 56' 01" 
- **Longitude:** 157° 45' 54"
- **Hydrologic Unit:** 
- **State Well No.:** GA21-01

**References:** Hawaii Revised Statutes, Chapter 174C.

Hawaii Administrative Rules, Chapters 13-167 to 13-171.
F. DECLARATION OF WATER USE

NOTE: The purpose of the Declaration of Water Use is to obtain information necessary for the management of the State's water resources. The Declaration does not confer a legal right to water or its use.

Water use data are recorded: [ ] Daily [ ] Weekly [ ] Monthly

Method of measurement: [ ] Flow Meter [ ] Orifice

Quantity of Use (Report metered or estimated monthly water use from the well described on the reverse side of this form, for the calendar years 1983 through 1987. For a battery of wells which are not individually metered, but which are connected to a single meter or other measuring device, report total use from the battery):

WATER USE, IN GALLONS x 1000

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Minimum day’s use: __________ gallons

Maximum day’s use: __________ gallons

Typical times of usage:

Type of Use (Check all category boxes that apply and provide additional information as indicated):

- [ ] Municipal (including resorts, hotels, businesses)
- [ ] Domestic (systems serving 25 people or less)
- [ ] Irrigation
- [ ] Industrial
- [ ] Military
- [ ] Other

Additional Information

Number of service connections: __________

Acres Irrigated: __________

Crop(s): [ ] Sugar [ ] Pineapple

Non-Crop: [ ] Other (specify):

Method: [ ] Drip [ ] Furrow [ ] Sprinkler

[ ] Cooling [ ] Manufacturing [ ] Mill

[ ] Other (specify):

Specify (livestock, aquaculture, etc.): __________

I declare that the contents of the above Declaration of Water Use are, to the best of my knowledge and belief, true, correct, and complete.

Water User’s Signature: __________________________ Date: __________

Printed Name: __________________________

Firm or Title (Well Operator, etc.): __________________________