<table>
<thead>
<tr>
<th>Taxkey</th>
<th>Subdiv/Condo Apt</th>
<th>Property Tnr Address</th>
<th>Owner/Lessee</th>
<th>Beds/Baths</th>
<th>Land area</th>
<th>Living area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-1-5-5-21</td>
<td></td>
<td>F</td>
<td>SULLIVAN,TERRENCE JAMIE</td>
<td>M</td>
<td>3.51 ac</td>
<td></td>
</tr>
</tbody>
</table>

This information has been supplied by third parties and has not been independently verified by Hawaii Information Service and is, therefore, not guaranteed.
Mr. Terrence Sullivan  
P.O. Box 717  
Haiku, HI 96708

Dear Mr. Sullivan:

Well Completion Report for Well No. 4100-01

We received your Well Completion Report Part II for the Koali-Sullivan Well (Well No. 4100-01) on April 15, 2002 and acknowledge that it is complete. This completes the permitting requirements for this well.

If you have any questions, please contact Charley Ice of the Commission staff at 587-0251 or toll-free at 984-2400 extension 70251.

Sincerely,

LINNEL T. NISHIOKA  
Deputy Director

CI:ss  
c: Wailani Drilling, Inc.
ATTN. Charlie Ice

Fax Number 1-808-587-0219
Phone Number 1-808-587-0251

FROM Soundworks

Fax Number 808-877-7845
Phone Number 808-877-7023

SUBJECT ATTN Charley Ice

Number of Pages 2
Date 4/15/02

MESSAGE

Here is fax copy of Sullivan PIP will make another copy and mail you hard copy

PS FYI just got those 4 surveys done on those old wells, soon as I get them I will complete forms & get them to you ASAP OK.

Mahalo, Bill
PUMP INSTALLATION PERMIT
Koali-Sullivan Well, Well No. 4100-01

Note: This permit shall be prominently displayed at the site until the work is completed

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Koali-Sullivan Well (Well No. 4100-01) at Ahuakeio (Koali), Hana, Maui, TMK 1-5-5:21, 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 96806, shall be notified, in writing, at least two (2) weeks before any work covered by this permit commences and 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 16 gpm rated capacity at 168 ft. of head, or less, pump in the well.

3. The permittee, well operator, and/or well owner 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 in-stream flow standards. This permit or the authorization to pump water from a well shall not constitute a determination of correlative water rights. The permittee, well operator, and/or well owner are 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, well operator, and/or well owner 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, well operator, and/or well owner 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 and any related staff submitted approved by the Commission are incorporated into this permit by reference. This the permit is also subject to the Hawaii Well Construction & Pump Installation Standards (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.

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, well operator, and/or well owner 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, well operator, and/or well owner must apply for a well abandonment permit in accordance with §13-168-12(f) prior to any well sealing or plugging work.

10. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

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

Date of Approval: December 20, 2001
Expiration Date: December 20, 2001

GILBERT S. COLOMA-AGARAN, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the 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 starting from the permit date of approval.

Permittee's Signature: Terence Sullivan
Date: 1-24-02
Firm or Title: Owner

Printer Name: Terence Sullivan

Installer’s Signature: Mike Robertson
Date: 1/30/02
Firm or Title: Wailani Drilling Inc.

Print Name: Mike Robertson

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

Attachments
USGS
Department of Health/Safe Drinking Water & Wastewater Branch
Hawaii Department of Water Supply
Wailani Drilling Company
MEMO and ROUTE SLIP

WCR 2 Check for Well No. 4100-01 (survey to regulation memo)

1. Pump Tests Check (special condition of PIP? Yes/No) Glenn Bauer (initial if yes)
<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>If no, describe deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

   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) 4-11-02
<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>If no, describe deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

   data complete
   - followed WCPI Stds
   - well database updated
   |     |     |
   |     |     |
   |     |     |
   |     |     |

3. Charley/Lenore/Ryan (initial) take action based on above analysis
4. Roy (initial) check
5. Subia (initial) finalize
6. Linneel (initial) signature
7. Charley/Lenore/Ryan File
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 96809. The Commission may not accept incomplete reports. This form shall be submitted within 60 days of the completion of work. For assistance, please consult the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at 887-0225. 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.:</th>
<th>4100-01</th>
<th>Well Name:</th>
<th>Koali-Sullivan</th>
<th>Island:</th>
<th>Maui</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Address:</td>
<td>Ahuakelo (Koali), Hana</td>
<td>Tax Map Key:</td>
<td>1-5-5:21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Pump Installation Company:</td>
<td>WAIALANI DRILLING</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Date Pump Installed:</td>
<td>6/30/01</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5. PERMANENT PUMP INFORMATION (Attach pump specifications and rating curve)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump Type, Make, Serial No.:</td>
<td>Submersible, Grundfos, 14520-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor Type, H.P., Voltage, rpm:</td>
<td>FRANKLIN, 2HP, 220 (1 PH), 3450 RPM</td>
<td></td>
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<tr>
<td>Type of flow meter:</td>
<td>TURBINE which measures in GPM.</td>
<td></td>
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<tr>
<td>Model Number</td>
<td>M-2</td>
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<td></td>
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<td></td>
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<tr>
<td>Serial Number</td>
<td>N/A</td>
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<td>Pump type (check one):</td>
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<tr>
<td>□ Deep Well Turbine</td>
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<tr>
<td>□ Rotary</td>
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<tr>
<td>□ Propeller</td>
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<tr>
<td>□ Submersible</td>
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<tr>
<td>□ Rotary-Displacement</td>
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<td>□ Reciprocating</td>
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<tr>
<td>□ Centrifugal</td>
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<tr>
<td>□ Rotary-Gear</td>
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<tr>
<td>□ Impulse</td>
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<td>6. Method of flow measurement:</td>
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<tr>
<td>□ Flowmeter</td>
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<tr>
<td>Manufacturer</td>
<td>Micrometers</td>
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<tr>
<td>Make</td>
<td>Turbine</td>
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<tr>
<td>Size</td>
<td>d''</td>
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<td>□ Weir</td>
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<tr>
<td>□ Open Pipe</td>
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<tr>
<td>□ Orifice*</td>
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<td>□ Other*, explain below</td>
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<tr>
<td>*attach schematic</td>
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<td>7. Fill in the as-built section on the other side of this sheet.</td>
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<tr>
<td>8. Attach photograph of well and concrete pad clearly showing benchmark on concrete pad.</td>
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<td>9. Other remarks/comments:</td>
<td></td>
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<tr>
<td>* PUMP SOT @ 176 FT, PLUS 100 FT ELEVATION FOR OUTLET, PLUS 40 PSI PRESSURE TANK, EQUALS = 350 FT OPERATING ELEVATION @ 16 GPM.</td>
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</tbody>
</table>

Pump Installation Contractor (print)  Mike Robertson  Lic. No. 2015  
Signature  
Date  1/30/03  

Permittee (print)  Terrence Sullivan  
Signature  
Date  1/24/02
Bench mark elevation surveyed to nearest 0.01 ft. = 167.26 ft. mean sea level

Elevation of top of chase tube ft. mean sea level = 167.96

Pump intake depth = 176 ft. (referenced to bench mark)

Chase tube depth = 175 ft. (referenced to bench mark)

If airline installed, bottom of airline elevation = N/A ft. mean sea level

0.4100.01 Koa M Sullivan
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.
4" MOTOR STANDARD, 5.5 HP/3450 RPM.
6" MOTOR STANDARD, 7.5-10 HP/3450 RPM.
Alternate motor sizes available.

Performance conforms to ISO 2548 Annex B
2 ft. min. submergence.
For: Charlie Ice

Charlie. Enclosed are the following items:

- ✔ Request to install larger pump for Vandevelde #5616-05
- ✔ WCR I Felton #5616-07
- ✔ Info for Robertson 5615-01
- ✔ WCR II for Maui Kamaole #4226-16
- ✔ WCR I for Steele #5616-06
- ✔ Notice to decrease pump size @ Front Street # 5341-02
- ✔ Correction notice on WCP for Maui Kamaole #4226-16
- ✔ WCR II for Sullivan # 4100-01

Please confirm receipt by checking off the enclosed items and faxing a copy of this memo to me at 808-572-0925.

From: Bill Steele
Mr. Terrence Sullivan
P.O. Box 717
Ha'iku, HI 96708

Dear Mr. Sullivan:

Pump Installation Permit
Koali-Sullivan Well (Well No. 4100-01)

Enclosed are two (2) originals of your approved Pump Installation Permit for the captioned well(s) that authorize permanent pump installation work for your well(s). As part of the Chairperson's approval, the following special conditions were added and are part of your permit under Permit Condition 11:

Special Conditions

1. If the elevation benchmark needs to be altered, the permittee, well operator, and/or well owner shall ensure that the benchmark is transferred (or the well resurveyed) and documentation of the new benchmark shall be submitted to the Commission within sixty (60) days after the pump is installed.

2. Please enclose the pump specification and rating curve for the installed pump with the Well Completion Report.

The permittee, well operator, and/or well owner are responsible for all conditions of the permit. Be advised that you may be subject to fines of up to $1000 per day for any violations of your permit conditions starting from the permit approval date.

Please sign and have the contractor sign both permit originals and return one for our files. A copy of your water use report form is enclosed for your use.

Except for the monthly water use report form, please provide copies of all the information in this packet to your pump installation contractor.

Finally, this letter is notice that we have accepted your Well Completion Report - Part I as complete.

If you have any questions, please call Charley Ice of the Commission staff at 587-0251 or toll-free at 984-2400, extension 70251.

Aloha,

GILBERT S. COLOMA-AGARAN
Chairperson

Enclosure

c: Wailani Drilling Company
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 Koali-Sullivan Well (Well No. 4100-01) at Ahuakela (Koali), Hana, Maui, TMK 1-5-5:21, 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 16 gpm rated capacity at 168 ft. of head, or less, pump in the well.

3. The permittee, well operator, and/or well owner 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, well operator, and/or well owner are 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, well operator, and/or well owner 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, well operator, and/or well owner 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 and any related staff submittal approved by the Commission are incorporated into this permit by reference. The this permit is also subject to the Hawaii Well Construction & Pump Installation Standards (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.

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, well operator, and/or well owner notice of the proposed action and an opportunity to be heard.

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10. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

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

Date of Approval: December 20, 2001
Expiry Date: December 20, 2001
GILBERT S. COLOMA-AGARAN, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the 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 starting from the permit date of approval.

Permittee's Signature: __________________________ __________________________
Printed Name: __________________________ Firm or Title: __________________________
Installer's Signature: __________________________ C-57, C-57a, or A License #: __________________________
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
USGS
Department of Health/ Safe Drinking Water & Wastewater Branch
Maul Department of Water Supply
Waiani Drilling Company
MEMO and ROUTE SLIP

WCR 1 Check for Well No. 4100-01 (survey to regulation memo)

1. **Pump Tests Check** Glenn Bauer (initial)  
   
<table>
<thead>
<tr>
<th>Step–Drawdown Test:</th>
<th>Yes</th>
<th>No</th>
<th>If no, describe deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>followed WCPI Stds</td>
<td></td>
<td></td>
<td>&lt; 20 gpm @ 16 gpm</td>
</tr>
<tr>
<td>analysis attached</td>
<td></td>
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<tr>
<td>proposed pump cap o.k.</td>
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</tr>
<tr>
<td>Aquifer Pump Test:</td>
<td></td>
<td></td>
<td>Cannot use data</td>
</tr>
<tr>
<td>followed WCPI Stds</td>
<td></td>
<td></td>
<td>basically, no drawdown despite pumpage.</td>
</tr>
<tr>
<td>T &amp; S analysis attached</td>
<td></td>
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<td></td>
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<tr>
<td>Well Interference:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>estimated Steady-State</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>drawdown at 1-mile radius is ______ ft.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>analysis attached</td>
<td></td>
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</tr>
<tr>
<td>Stream Surface Water Impacted:</td>
<td></td>
<td></td>
<td>If yes, identify most probable stream</td>
</tr>
</tbody>
</table>

2. **Construction Check** Mitch Ohye (initial)  
   
   | data complete | Yes | No | If no, describe deficiency |
   | followed WCPI Stds |    |    | Exp. DATE on FIP |
   | well database updated |    |    | WRODG |
   |                     |    |    |                           |

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

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

   **ATTACHMENTS** not necessary – only WCP.  
   To be sent to applicant  
   Driller notified of exp. typo; well owner phone * non-functional

4. Roy (initial) check
5. Subia (initial) finalize
6. Kinzel (initial) signature
7. Charley/Lenore/Ryan File
Return Receipt Fax Memo

For: Charlie Ice

Charlie. Enclosed are the following items:

- WCR 1 for Steele 5616-06 (no survey)
- WCR 1 for Cookman 5514-04 (no survey)
- WCR 1 for Sullivan 4100-01
- PIP & WCR II for Ulin 5414-02
- PIP & WCR II for Smith 5320-02 with attachments
- Survey for Robertson 5615-01
- Deed for Harlow

Please confirm receipt by checking off the enclosed items and faxing a copy of this memo to me at 808-572-0925.

From: Bill Steele
## WELL COMPLETION REPORT - PART I

**Well Construction**

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

For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlnr/cwrm/

### 1. State Well No.: 4100-01

**Well Name:** Koali-Sullivan

**Island:** Maui

**Address:** Hana Highway, Ahuakei (Koali), Hana

**Tax Map Key:** 1-5-5:21

### 3. Drilling Company: **Wailani Drilling**

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

### 5. Date Well Construction (drilled, cased, grouted) completed: 5/31/01

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

### 7. Initial water-level encountered 182 ft. below ground Date and time of measurement: 5/10/01

### 8. Step-Drawdown Test completed? 
- ☑ No
- ☐ Yes

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

### 9. Constant Rate Aquifer Test completed? 
- ☐ No
- ☑ Yes

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

**Parameters prior to pump test:**

### 10. Water-level: 14.14 ft. above msl Date and time of measurement: 6/20/01 8:00am

### 11. Chloride: 35 ppm Date and time of sampling: 6/10/01 8:00am

### 12. Temperature: 67 °F Date and time of measurement:

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

### 14. Attach plot plan and surveyor’s stamped elevation report.

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

### 16. Remarks:

---

**Licensed Driller (print):** Mike Roberts  
**C-57 Lic. No.:** 20115  
**Signature:** Mike Roberts  
**Date:** 6/28/01

**Surveyor (print):** See attached survey  
**L.P.L.S. Lic. No.:**  
**Signature:**  
**Date:** 11/8/01

**Permittee (print):** Terence Sullivan  
**Signature:** Terence Sullivan  
**Date:** 6-8-01
13. AS-BUILT WELL SECTION

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

Bench mark
elevation: 167.2 ft., msl*
(Survey to nearest 0.01 ft.)

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

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

Rock or Gravel Packing:
N/A ft.
Material:
□ Crushed Basalt
□ Rounded Gravel

Water Level Elevation:
1,41 ft., msl*

Solid Casing: (≥ 90% x (Ground Elev.-Water Level Elev))
Length: 171.35 ft.
Nominal Diameter: 4" in.
Wall Thickness: 2.50 in.
Bottom Elevation: 16.98 ft., msl

Open Casing: perforated Screen
Length: 12 ft.
Nominal Diameter: 4" in.
Wall Thickness: 2.50 in.
Bottom Elevation: 16.98 ft., msl

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

*msl = mean sea level

Solid Casing Material:
Carbon Steel: compliant with (check one or more):
□ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more):
□ ASTM A242 □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (check one):
□ ASTM A409 (production 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
Koali-Sullivan Well # 4100-01

Survey (Top of Casing) is 167.76 ft above m.s.l.

Total Depth of Well 182 ft.
Initial Chlorides 36 ppm

Pumped tested at 16 gpm for 8 hours with maximum drawdown of .01 ft.

*Note: not drawn to scale
WELL ELEVATION SURVEY

NOVEMBER 8, 2001

Smith Development
1043 Makawao Avenue, Suite 208
Makawao, Maui, Hawaii 96768

Attn: Ian D. Smith

On October 31, 2001, the well located on Parcel 21 of Tax Map Key:(2) 1-5-005 was surveyed by surveyors under my instructions and the elevation at the top of the well casing was determined to be 167.76 Feet above Mean Sea Level. This elevation was referenced to an established benchmark on the bridge over Papahawahawa Gulch.

NEWCOMER-LEE LAND SURVEYORS, INC.
a Hawaii corporation

BRUCE R. LEE
Licensed Professional Land Surveyor
Certificate No. 5983-LS

5319WELL.wps
### DRILLER'S LOG (7/26/99 DL Form)

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, etc.</th>
<th>Dates</th>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, etc.</th>
<th>Dates</th>
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<td>5/02/01</td>
<td>12 to 19</td>
<td>Old Rock 14 ft.</td>
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<td>Blue Rock</td>
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**Remarks:**
# CONSTANT-RATE PUMP TEST DATA

**Table 2 (CRPTD Form 12/17/97)**

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<th>Pumped Well No.</th>
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<th>Pumped Well Name</th>
<th>Distance between Obs. &amp; Pumped Well</th>
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<td>Koeh-Sullivan</td>
<td>N/A ft.</td>
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<th>Target Q</th>
<th>Reference pt. for depth to water</th>
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<td>166.35 ft. msl</td>
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<table>
<thead>
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<th>Water level measurements by:</th>
<th>Static Water Level @ start of test</th>
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<td>☐ steel tape</td>
<td>1.41 ft. msl</td>
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<td>☐ pressure transducer</td>
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<td>☐ airline</td>
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**START TEST**  
Date: 3/10/87  
Time of day: 8:00 AM

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<th>Actual elapsed time (min)</th>
<th>Depth to water (nearest 0.1 ft)</th>
<th>Drawdown S (unadjusted to nearest 0.1 ft)</th>
<th>Pumping rate Q (gpm)</th>
<th>EC (µmhos)</th>
<th>Cl⁻ (mg/l)</th>
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Remarks:

- Start Test
- Start pump/Cl⁻ taken
<table>
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<tr>
<th>Suggested elapsed time (min)</th>
<th>Actual elapsed time (min)</th>
<th>Depth to water (nearest 0.1 ft)</th>
<th>Drawdown S (unadjusted to nearest 0.1 ft)</th>
<th>Pumping rate Q (gpm)</th>
<th>EC (mhos)</th>
<th>Cl⁻ (mg/l)</th>
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<td>Max possible duration, water level or quality did not stabilize for any 24 period</td>
<td>Begin recovery data next page</td>
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Flow meter reading at end of pumped period: __________ gals

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1 Chloride sampling required
2 Use same ending drawdown figure as start for recovery
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<th>Suggested elapsed time (min)</th>
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<th>Depth to water (nearest 0.1 ft)</th>
<th>Recovery Drawdown S (unadjusted to nearest 0.1 ft)</th>
<th>Pumping rate Q (ppm)</th>
<th>EC (µmhos)</th>
<th>Cl⁻ (mg/l)</th>
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END TEST Date: 7/03/97 Time of day: 4:00 PM

ADDITIONAL REMARKS:

Person in charge of pump test (print): NATHAN ROBERTSON

Signature: [Signature]

The signature above indicates that the data reported on this form is accurate and true to the best of the person's knowledge who operated this pump test.
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<th>DATE: APR 26 2001</th>
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Is there a signed fax showing 3/14/01 as signed date in the file already? Please let me know, this seems like a new signature.

No - the other original was received Mar 19, w/ Robert signing 3/14.
Wailani Drilling Company
Mike Robertson
655 Kulike Road Haiku, Maui, Hawaii 96708
Ph. 808/572-2673 Fax 572-0925 Cellular 264 7079

Return Receipt Fax Memo

For: Charlie Ice

Charlie. Enclosed are the following items:

- ✔ Fully signed well construction permit for Koali-Sullivan well No. 4100-01
- ✔ Notice of intention to start well construction.
- ✔ Notice to utilize declaratory ruling DEC-ADM98-G5

Please confirm receipt by checking off the enclosed items and faxing a copy of this memo to me at 808-572-0925.

From: Mike Robertson

Thank you: Mike Robertson

The WCP looks like your 2nd original we received me 3/19. Should we return?
To: Charlie Ice  
For: Water Resource Commission

Dear Charlie: Enclosed is Koali Sullivan Well Permit.  Owner wants to proceed with drilling right away.

Owner also wants to take advantage of the declaratory ruling # DEC-ADM98-G5 because proposed pumps are rated less than 70 g.p.m.

Thank You;

Mike Robertson  
dba Wailani Drilling Inc.

c.c.

Certified By The National Groundwater Association
To: Charlie Ice
For: Water Resource Commission

Dear Charlie:

This is to provide written notice for starting work on the following wells:

Ho‘olawa Well, Well No. 5514-04
Koali-Sullivan Well, Well No. 4100-01

Owners also want to take advantage of the declaratory ruling # DEC-ADM98-G5 because proposed pump is rated less than 70 g.p.m.

Enclosed are the signed well construction Permits.

Please fax a response to me to confirm.

Thank You;

Mike Robertson

dba Wailani Drilling Inc.
March 5, 2001

Mr. Terrence Sullivan
P.O.Box 717
Ha'iku, Maui, HI 96708

Dear Mr. Sullivan:

Well Construction Permit
Keali-Sullivan Well (Well No. 4100-01)

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

Special Conditions

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

This permit does not authorize work for your permanent pump installation. Approval and issuance of your pump installation permit is contingent upon completed application and information provided to and accepted by Commission staff as required in the Well Construction & Pump Installation Standards (1/23/97) and any special conditions performed under this permit. However, a permanent pump may be installed prior to the permanent pump installation permit issuance in accordance with the Commission's April 15, 1998 Declaratory Ruling No. DEC-ADM98-G5, which states that:

"Permanent pump installation for capacities between 0-70 gpm and where the proposed use is for private individual needs in non-ground-water management areas may be allowed prior to the final pump installation permit issuance. When required as a condition of the well construction permit, subsequent pumping tests shall validate the acceptability of the permanent pump. The permanent pump installed prior to final pump installation permit issuance is subject to removal if the testing shows that a smaller pump is required to reduce the potential of affecting neighboring wells and localized upconing at the applicant's well."

If you qualify and wish to take advantage of this ruling, please include a written request to install the permanent pump prior to final pump installation permit issuance when you return to us your signed well construction permit.

Please sign and have the contractor sign both permit originals and return one for our files. Also, copies of the aquifer pump test worksheet and the well completion report form are enclosed for your use.

IMPORTANT - Drilling work shall not commence until a fully signed permit is returned to the Commission. Please provide all the information in this packet to your well drilling contractor. The permittee, well operator, and/or well owner are responsible for all conditions of the permit. This includes ensuring that the well construction contractor, or other party who constructs the well(s), submits a completed Part I of the Well Completion Report form (enclosed) within sixty (60) days after the well construction work is completed. Be advised that you may be subject to fines of up to $1000 per day for any violations of your permit conditions starting from the permit approval date.

If you have any questions, please call Charley Ice of the Commission staff at 587-70251 or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), 984-2400 ( Maui), or 1-800-468-4644 (Lanai & Molokai) extension 770251.

Aloha,

[Signature]
Chairperson

Enclosures
c. Wailani Drilling Company
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 Koali-Sullivan Well (Well No. 4100-01) at Hana Highway, Ahuakei (Koali), Hana, Maui, TMK 1-5-5:21, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work authorized by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. The well construction permit shall be for construction and testing of the well only. A minimum 1 1/4-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels. The permittee, well operator, and/or well owner shall coordinate with the Chairperson and conduct a pumping test in accordance with the Standards (a pump testing worksheet is attached). The permittee, well operator, and/or well owner shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump and withdraw water for use. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson.

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

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

5. In the event that subsurface cultural remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee, well operator, and/or well owner shall stop work and contact the Department's Historic Preservation immediately.

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

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

8. The permittee, well operator, and/or well owner shall comply with all applicable laws, rules, and ordinances; non-compliance may be grounds for revocation of this permit.

9. The well construction permit application is incorporated into this permit by reference and is subject to the Hawaii Well Construction & Pump Installation Standards (January 23, 1997; HWCPIS). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

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

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

12. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

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

Date of Approval: February 9, 2001
Expiration Date: February 9, 2003

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

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

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

Attachment
C: USGS
Department of Health's Safe Drinking Water, Wastewater, and Clean Water Branches
Hawaii Department of Water Supply
Wainani Drilling Company
WELL CONSTRUCTION PERMIT
Koali-Sullivan Well, Well No. 4100-01

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 Koali-Sullivan Well (Well No. 4100-01) at Hana Highway, Ahuakei (Koali), Hana, Maui, TMK 1-5-5:21, 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 96808, shall be notified, in writing, at least two (2) weeks before any work authorized by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. The well construction permit shall be for construction and testing of the well only. A minimum 1½-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels. The permittee, well operator, and/or well owner shall coordinate with the Chairperson and conduct a pumping test in accordance with the Standards (a pump testing worksheet is attached). The permittee, well operator, and/or well owner shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump and withdraw water for use. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson.

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

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

5. In the event that subsurface cultural remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee, well operator, and/or well owner shall stop work and contact the Department's Historic Preservation immediately.

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

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

8. The permittee, well operator, and/or well owner shall comply with all applicable laws, rules, and ordinances; non-compliance may be grounds for revocation of this permit.

9. The well construction permit application is not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

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

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12. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, and death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

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

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

Attachment

C: USGS
Department of Health's Safe Drinking Water, Wastewater, and Clean Water Branches
Maui Department of Water Supply
Wailani Drilling Company
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1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work authorized by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

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

8. The permittee, well operator, and/or well owner shall comply with all applicable laws, rules, and ordinances; non-compliance may be grounds for revocation of this permit.

9. The well construction permit application is incorporated into this permit by reference and is subject to the Hawaii Well Construction & Pump Installation Standards (January 23, 1997; HWCPIS). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

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

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

12. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

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

Date of Approval: February 9, 2001
Expiration Date: February 9, 2003

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

Permittee's Signature: Terence Sullivan
Printed Name: Terence Sullivan
Firm or Title: Owner
Date: 3-9-01

Driller's Signature: Mike Roberts
Printed Name: Mike Roberts
Firm or Title: Wailani Drilling
C-57 License #: 2015
Date: 3-14-01

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

Attachment
C: USGS
Department of Health's Safe Drinking Water, Wastewater, and Clean Water Branches
Mai Department of Water Supply
Wainani Drilling Company

GILBERT S. COLOMA-AGARAN, Chairperson
Commission on Water Resource Management
FROM: CHARLEY
DATE: 22 Feb 01
SUSPENSE DATE: ___________

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

BAUER, G. NAKAM, A. 3 Approval
CHING, F. NAKANO, D. 3 Signature
FUJII, N. NISHIKAI, L. 4 Information

1 HARDY, R. 3 OHYE, M.
2 HIGA, D. 4 SAKOTA, E.
3 HIRANO, E. 5 SUBIA, S.
4 ICE, C. SWANSON, S.
5 IMATA, R. UWENO, D.
6 JINNAI, R. YODA, K.
7 KUNIMURA, I. ____ ____ ____ Approval

WELL NUMBER 4650-01 WELL NAME Kooli Sullivan

X WELL CONSTRUCTION

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

TO BE SENT TO APPLICANT
FOR OFFICE USE ONLY

X PUMP INSTALLATION

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

TO BE SENT TO APPLICANT
FOR OFFICE USE ONLY

01 Mar 01 - DOH WW comment arrived by fax - supposedly completed 29 Feb 01.
(Still having prob getting stuff back)
**SECTION 1: WELL LOCATION INFORMATION**

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<th>Island</th>
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<td>Aquifer Sector</td>
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**SECTION 2: WELL SECTION DATA** *(enter data in grey cells only)*

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<th>Elevation at top of casing</th>
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<td>Rock Packing</td>
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<td>Hole Diameter</td>
<td>ft.</td>
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<tr>
<td>Total Depth</td>
<td>ft.</td>
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| Estimated Head             | ft., m.s.l. |
| Calculated Aquifer Thickness | 123 ft.     |
| County Water Supply (Y/N ?) |             |

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<td>Length</td>
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<tr>
<td>Diameter</td>
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<tr>
<td>Wall Thickness</td>
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<tr>
<td>Diameter</td>
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**SECTION 3: CHECKLIST** *(values to check are shaded)*

**Well Depth**

- Theoretical Thickness of Aquifer | 123 ft.  
- 1/4 Aquifer Thickness | 30.75 ft.  
- Depth of Well below Sea Level | 25 ft. okay *(refer to HWCPIS Section 2.2)*

**Well Casing**

- Minimum Wall Thickness
  - Material: PVC
  - County or Non-County: non-county
  - Minimum Thickness per standards: 0.237 in.
  - Wall Thickness Provided: 0.250 in. okay *(refer to HWCPIS Section 2.4 c)*
  - Minimum Length of Solid Casing
    - 90% of ground to top of aquifer: 222.3 ft.
    - Length of solid casing Provided: 255 ft. okay *(refer to HWCPIS Section 2.4 d)*
  - Casing Material: Schedule 40
    - okay *(refer to HWCPIS Section 2.4 e)*

**Annular Space**

- If the cell above reads #N/A, reference HWCPIS)

**Depth of Grouting**

- Calculated Depth of Grouting | 172.9 ft.  
- Depth of Grouting provided | 180 ft. okay *(refer to HWCPIS Section 2.6 c)*
- Thickness of Annular Space | 3.25 in. okay *(refer to HWCPIS Section 2.6 d)*

Page 1
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This information has been supplied by third parties and has not been independently verified by Hawaii Information Service and is, therefore, not guaranteed.
TO:   Honorable Bruce S. Anderson, Director
      Department of Health
      Attention: Dennis Tulang, Wastewater Branch
      William Wong, Safe Drinking Water Branch

FROM:  Gilbert S. Coloma-Agaran, Chairperson
        Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
         Koali-Sullivan Well (Well No. 4100-01)

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 February 9, 2001.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact 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 (defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-20.

This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year or 15 service connections) and if the well water is used for drinking, the private owner should test for bacteriological and chemical presence before 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: Lori N. Kajiwara
Phone: 586-4294
Signed: Lori N. Kajiwara
Date: 2-9-2001
TO: Honorable Bruce S. Anderson, Director  
Department of Health  
Attention: Dennis Tulang, Wastewater Branch  
William Wong, Safe Drinking Water Branch  

FROM: Gilbert S. Coloma-Agaran, Chairperson  
Commission on Water Resource Management  

SUBJECT: Well Construction/Pump Installation Permit Application  
Koali-Sullivan Well (Well No. 4100-01)  

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Contact Person: Lori N. Kajiwara  
Phone: 586-4294  
Signed: Lori N. Kajiwara  
Date: 2-9-2001  

RESPONSE: 

This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-35-25. 

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 outlets 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. NO RECORDS ON FILE.
TRANSMITTED for your review and comment is a copy of the captioned well application which includes a request for a pump installation permit.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. **Please respond by returning this cover memo form by February 9, 2001.**

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

**RESPONSE:**

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

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

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

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

[ ] No objections

[ ] Other comments: Original source of private title is Royal Patent Grant 1878 issued September 1855.

Contact Person: ___________________ Phone: 587-0421

Signed: ___________________ Date: 1/31/01
TO:    Honorable Bruce S. Anderson, Director  
       Department of Health  
       Attention:  Dennis Tulang, Wastewater Branch  

FROM:  Gilbert S. Coloma-Agaran, Chairperson  
       Commission on Water Resource Management  

SUBJECT:  Well Construction/Pump Installation Permit Application  
           Koali-Sullivan Well (Well No. 4100-01)  

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 February 9, 2001.

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

Cl:ky  
Attachment(s)  

RESPONSE:  

[1] This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or 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, §11-30-33, §11-20-29.5 AND §11-20-30  

[1] 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.

[1] If the well is used to supply both possible and non-possible 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.

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

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

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

[1] No comments/objections  

Contact Person:  WICHLI 4 HAMMONO  
Phone:  586-0251  

Signed:  SIGNED  
Date:  01/31/01  

* SEE ATTACHED COMMENTS
Attached Comments for Well Drilling and Pump Installation Permit Applications.

The Department of Health, Safe Drinking Water Branch has the following general comment for Well Drilling/Pump Installation Permit Applications Proposing Use of Submersible Pumps

Please be advised that the Department of Health has experienced drinking water and groundwater contamination by submersible pumps containing mercury. Specifically, the failure of the seals of the pumps allowed mercury to leak out into the well shaft resulting in contamination of the well and the water served by the well. Please review your pump specifications to be sure that the submersible pump(s) you are proposing to use do not contain materials which could result in either groundwater contamination or drinking water contamination.

The Department of Health, Clean Water Branch has the following comments:

1. For Well-Drilling Activities

Any discharge to State waters of treated process wastewater effluent associated with well drilling activities is regulated by Hawaii Administrative Rules, Title 11, Chapter 55, Appendix I, effective September 1997. Treated process wastewater effluent covered by this general permit includes well drilling slurries, lubricating fluids wastewaters, and well purge wastewaters. This general permit does not cover well pump testing. The applicable Notice of Intent Forms and filing fee shall be submitted at least thirty (30) days before the start of discharge to the Department of Health, Clean Water Branch at 919 Ala Moana Boulevard, Room 301, Honolulu, Hawaii 96814-4920 or P.O. Box 3378, Honolulu, Hawaii 96801-3378. Inquiries may be directed to the Clean Water Branch at (808) 586-4309 or by fax at (808) 586-4352.

2. For Well Pump Testing

The discharger shall take all measures necessary to prevent the discharge of pollutants from entering State waters. Such measures shall include, if necessary, containment of the initial discharge until the discharge is essentially free of pollutants. If the discharge is entering a stream or river bed, best management practices shall be implemented to prevent the discharge from disturbing the clarity of the receiving water. If the discharge is entering a storm drain, the discharger must obtain written permission from the owner of that storm drain prior to discharge. Furthermore, best management practices shall be implemented to prevent the discharge from collecting sediments and other pollutants prior to entering the storm drain.
Mr. Terrence Sullivan
Aloha Water Company
P.O. Box 717
Haiku, Maui, HI 96708

Dear Mr. Sullivan:

Well Construction/Pump Installation Permit Application for Well No. 4100-01

We acknowledge receipt, on January 2, 2001, of your completed Well Construction/Pump Installation permit application and filing fee for the Koali-Sullivan Well (Well No. 4100-01). 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 (upon completed application) may then be issued to authorize pump work. If a pump is installed then a Well Completion Report Part 2 (Pump Installation) is required.

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

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

Cl: ky
cc: Wailani Drilling Company
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

JAN 29 2001

TO: Honorable Bruce S. Anderson, Director
   Department of Health
   Attention: Dennis Tulang, Wastewater Branch
   William Wong, Safe Drinking Water Branch

FROM: Gilbert S. Coloma-Agaran, Chairperson

SUBJECT: Well Construction/Pump Installation Permit Application
          Koali-Sullivan Well (Well No. 4100-01)

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 February 9, 2001.

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

Cl:ky
Attachment(s)

RESPONSE:

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

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[ ] 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: ___________________________ Phone: ________________

Signed: ___________________________ Date: ________________
TO: Dean Y. Uchida, Administrator
    Land Division
FROM: Linnel T. Nishioka, Deputy Director
    Commission on Water Resource Management
SUBJECT: Well Construction/Pump Installation Permit Application
        Koali-Sullivan Well (Well No. 4100-01)

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

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

[ ] No objections

[ ] Other comments:

Contact Person: ___________________________ Phone: ____________

Signed: ___________________________ Date: ____________
## Department of Land and Natural Resources

### VAC or Attached Worksheet

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### Remarks:

- **LINE (1)**: WCP Appl. for Cogen Salt Water (Well No. 5751-02)
- **LINE (2)**: WCP Appl. for Paeahu 1 (Well No. 4124-01)
- **LINE (3)**: WC/PIP Appl. for Koali-Sullivan (Well No. 4100-01)
- **LINE (4)**: WC/PIP Appl. for Hoolawa-Cookman (Well No. 5514-04)
Dear Charlie:

Owner also wants to take advantage of the declaratory ruling # DEC-ADM98-G5 because proposed pumps are rated less than 70 g.p.m.

Thank You;

Mike Robertson
dba Wailani Drilling Inc.
# Mission on Water Resource Management

**Route Slip for New Applications**

**From:** CHARLEY  
**Date:** 4-Jan-01  
**Suspense Date:**

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<td>ICE, C.</td>
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<td>SUBIA, S.</td>
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<td>IMATA, R.</td>
<td></td>
<td>SWANSON, S.</td>
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<td>JINNAI, R.</td>
<td></td>
<td>UYENO, D.</td>
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<tr>
<td>KUNIMURA, I.</td>
<td></td>
<td>YODA, K.</td>
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</tbody>
</table>

**WELL NUMBER** 4100-01  
**WELL NAME** Hana-Koali - Sullivan

- [ ] WELL CONSTRUCTION  
- [ ] PUMP INSTALLATION  
- [x] BOTH

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

1. TRANS. LETTER  
2. CWRM MAP  
3. APPL. FORM (3X)  
4. USGS MAPS (3X)  
5. TAX MAPS (3X)  
6. PARCEL OWNER VERIF.  
7. CONTRACTOR VERIF.  
8. ALL INFO FILLED IN  
9. BACKGOUND CHECK

**Folder:**  
- [ ] MADE NEW FILE FOLDER, ATTACHED  
- [ ] FILE FOLDER ALREADY MADE, IN FILE CABINET

**Incomplete Action Dates:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>09 Jan 01</td>
<td>Note that mapped location is from TMK, as topo estimate is incorrect as submitted</td>
</tr>
</tbody>
</table>

**Note:**  
- Common application must have been returned separately
APPLICANT INFORMATION:

1. (a) WELL OWNER: Terrence Sullivan
   Mailing Address: PO Box 717 Haiku, HI 96708
   Phone: 808-573-0428
   Fax: 808-573-0426
   E-mail: N/A

(b) LAND OWNER: Same
   Mailing Address: PO Box 717 Haiku, HI 96708
   Phone: N/A

(c) CONTRACTOR: Wailani Drilling Inc.
   Contact Person: Mike Robertson
   Phone: 572-2673
   Fax: 572-0926
   E-mail: N/A

   Lic #: 2015

   (circle one: CO, C-67a, or A)

WELL & PUMP INFORMATION:

2. WELL LOCATION/NAME: Hana-Keali'i Sullivan
   Island: Maui
   Address: Hana Hwy, MAUI, HI
   Tax Map Key: LS-05-2
   Date: 10-17-00

3. PROPOSED WORK:
   (Check all that apply)
   - Drill New Well
   - Deepen
   - Install New Pump
   - Modify Existing Well
   - Redrill
   - Modify Pump
   - Abandon/Seal *
   - Replace Pump
   - * Well No.: Be sure to complete and submit well abandonment report upon completion of work.

4. CONSTRUCTION:
   - Dug
   - Bored
   - Driven
   - Drilled
   - Radial
   - Is this well part of a battery of wells? Yes
   - No (Please describe.)

5. PROPOSED PUMP INFORMATION:
   Rated Pump Capacity: 30 gallons per minute
   - Pump Type (Check one): Deep Well Turbine
     - Submersible
     - Centrifugal
   - Powered by: Diesel
     - Electric, rated horsepower: 3

6. PROPOSED USE:
   (Check all that apply)
   - Municipal (including hotels, stores, etc.)
   - Domestic (individual, noncommercial water system)
   - Irrigation (crop)
   - Military
   - Industrial
   - Other (explain):
   - No. of Existing Wells: 1
   - No. of Acres: 3.612

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 1500 gallons per day
   (b) METHOD OF FLOW MEASUREMENT: Flowmeter

OTHER IMPORTANT INFORMATION:

8. PENDING ACTIONS:
   - CDUA
   - SMA
   - EIS
   - EA
   - NONE
   - Other (explain)

9. If a pump installation permit request is part of this application, please answer the following: THE LANDOWNER CERTIFIES THAT THE SUBJECT PROPERTY, OR A PORTION THEREOF, WAS OR WAS NOT A STATE OF HAWAII LAND PATENT GRANT ISSUED AFTER 1960. (Please check with your title search company or the Land Division, Department of Land and Natural Resources at 587-0421 for help.)

10. REMARKS, EXPLANATIONS:

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

   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 permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

Well Owner: Terrence Sullivan
Landowner: Terrence Sullivan
Contractor: Mike Robertson
Signature: __________
Date: 10-17-00

Date: 10-17-00

Field Checked By: __________
Longitude: __________
Aquifer System Name: __________

Date: 12/16/00

State Well No.: __________

WCPIFORM (5/14/99)
11. PROPOSED WELL SECTION

**Solid Casing Material:**
- Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - Other
- Stainless Steel: (check one):
  - ASTM A409
  - ASTM A312
- 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
- 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:**
- Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - Other
- Stainless Steel: (check one):
  - ASTM A409
  - ASTM A312
- 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
- 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

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

**For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or,
Bottom Elevation of Well Limit = (Water Elevation - 0.25 x Aquifer Thickness) / 4
Example: Estimated = 2 ft. Water Level Elev. --- Bottom Elevation of Well Limit = (2 - 0.25 x 2) / 4 = -1.5 ft.

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**HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS**

Please refer to the

**HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS**

to assure that your construction plans are in compliance with all existing regulations.