<table>
<thead>
<tr>
<th>Taxkey</th>
<th>Subdiv/Condo</th>
<th>Tnr</th>
<th>Property Address</th>
<th>Owner/Lessee</th>
<th>Beds</th>
<th>Baths</th>
<th>Land area</th>
<th>Living area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-4-8-2-9</td>
<td>F</td>
<td></td>
<td>KEAN, JOHN M/JULIE A /ETAL</td>
<td>PIONEER MILL CO., LTD</td>
<td></td>
<td></td>
<td>313.74 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.
December 29, 2003

Mr. James R. Judge
Sugar Way, Ltd.
P.O. Box 33
Makawao, HI 96768

Dear Mr. Judge:

Well Completion Report for Well No. 4835-02

We received your Well Completion Report Part II for the Ukumehame-Sugar Way 1 (Well No. 4835-02) on December 17, 2003 and acknowledge that it is complete. Other than the continuing water use reporting requirement, the permitting requirements for this well are complete.

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,

[Signature]

ERNEST Y.W. LAU
Deputy Director

CI:ss

c: Wailani Drilling, Inc.
MEMO and ROUTE SLIP

12/19/03

WCR 2 Check for Well No. 4835-02 (survey to regulation memo)

1. **Pump Tests Check** (special condition of PIP? Yes/No)  Glenn Bauer (initial if yes)
   - Yes  No  If no, describe deficiency
   - Step-Drawdown Test:
     - followed WCPI Stds  □  □
     - analysis attached  □  □
     - proposed pump cap o.k.  □  □
   - Aquifer Pump Test:
     - followed WCPI Stds  □  □
     - T & S analysis attached  □  □
   - Well Interference:
     - estimated Steady-State drawdown at 1-mile radius is _________ ft.
     - analysis attached  □  □
   - Stream Surface Water Impacted:
     - □  □  If yes, identify most probable stream
     - Geology Code for Well Index: T

2. **Pump Installation Check**  Mitch Ohye (initial)
   - Yes  No  If no, describe deficiency
   - data complete  □  □
   - followed Special Cond & Elev. well database updated  □  □

3. Charley/Lenore/Ryan (initial) take action based on above analysis
4. Roy (initial) check
5. Subia (initial) finalize
6. Dean (initial) signature
7. Charley/Lenore/Ryan File
Return Receipt Fax Memo

Charley,

Enclosed are the following items:

- ✔ Well Completion part 2 Ukumehame-Sugar Way #1 Well No. 4835.02
- ✔ Signed Pump Installation Permit for Well No. 4835.02
- ✔ Well Construction- Pump Installation Permit application For Kauhikoa-Winn Well
- ✔ Tax map and USGS map for Winn Well
- ✔ $25.00 check

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

sent twice 22 Dec. - not completed

Sincerely, Michael
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
WELL COMPLETION REPORT - PART II
Pump Installation

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

1. State Well No.: 4835-02
   Well Name: O'ahu campaign-Sugar Way E1
   Island: Maui

2. Address:
   West O'ahu campaign Stream Tax Map Key: 48-219

3. Pump Installation Company: Waihapi Building Inc

4. Date Pump Installed: 9/30/03

5. PERMANENT PUMP INFORMATION
   Pump Type, Make, Serial No.: 25830-15 Grundfos BA5010015-P1311 US
   Rated Capacity: 25 gpm at head of: 298 ft.
   Motor Type, H.P., Voltage, rpm: Submersible 314P 230 Volt 3450 RPM
   Type of flow meter: Badger which measures in gallons
   Model Number BH-15 Serial Number B588921
   Pump type (check one):
   - Deep Well Turbine
   - Submersible
   - Centrifugal
   - Rotary
   - Rotary-Displacement
   - Rotary-Gear
   - Propeller
   - Reciprocating
   - Impulse

6. Method of flow measurement:
   - Flowmeter Manufacturer Badger Make Size 1 5/8
   - Weir
   - Open Pipe
   - Orifice
   - Other*, explain below

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

8. Attach photograph of well and concrete pad clearly showing benchmark on concrete pad.

9. Other remarks/comments:

   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

Pump Installation Contractor (print) Michael Robertson CSDC-57a/A Lic. No. 20115
Signature ___________________________ Date 9/30/03

Permittee (print) James R. Judge
Signature ___________________________ Date 9/31/03

WCR2 Form 11/12/02 Page 1 of 2
Bench mark elevation surveyed to nearest 0.01 ft. = 141.00 ft. mean sea level

identify reference point elevation for water level measurements through chase tube 141.86 ft. mean sea level

describe reference point:
Top of Sounding Tube Nipple

Pump intake depth = 145 ft. (referenced to bench mark)

Chase tube depth = 145 ft. (referenced to bench mark)

if airline installed, bottom of airline elevation = N/A ft. mean sea level
State of Hawaii  
COMMISSION ON WATER RESOURCE MANAGEMENT  
Department of Land and Natural Resources

FAX: Transmitting 8 pages, including this one; call 587-0251 with any reception problems.

TO: Craig Luke  
FROM: Charley Ice

Date: 01 October 03

Transmitting Well Completion Report, Part 1 (WCR1) for Ukumehame - Sugar Way Well #1 (Well No. 4835-02).  
(Includes constant-rate pump test)

81 Oct. 03 4:30 pm
Tom Maine called to inquire about moving prospective "Well 2" east toward forest reserve.  
I said notification should suffice.

Return Fax: 587-0219
Return Post: P.O.Box 621, Honolulu 96809
PUMP INSTALLATION PERMIT
Ukumehame-Sugar Way #1, Well No. 4835-0

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 13-166, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Ukumehame-Sugar Way #1 (Well No. 4835-02) at west of Ukumehame Stream at 141 ft. el., Maui, TMK 4-8-2:9, 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 25 gpm rated capacity at 298 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. 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.

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: June 30, 2003
Expiration Date: June 30, 2005

PETER T. YOUNG, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the 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: SUGAR WAY LTD
Printed Name: JAMES R. JUDGE Firm or Title: President
Installer’s Signature: Michael Robertson C-57a, or A License #: 20115
Printed Name: Michael Robertson Firm or Title: Waianae Drilling Inc.

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

Attachments
USGS
Department of Health's Safe Drinking Water & Wastewater Branch

Note: This permit shall be prominently displayed at the site until the work is completed.
September 15, 2003

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.

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.

Sincerely,

Peter T. Young
Chairperson

Enclosure
c: Wailani Drilling, Inc.
PUMP INSTALLATION PERMIT
Ukumehame-Sugar Way #1, Well No. 4835-02

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

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Ukumehame-Sugar Way #1 (Well No. 4835-02) at west of Ukumehame Stream at 141 ft. el., Maui, TMK 4-8-29, 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 25 gpm rated capacity at 298 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. 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.

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: June 30, 2003
Expiration Date: June 30, 2005

PETER T. YOUNG, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the 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: ___________________________ Date: __________
Printed Name: ___________________________ Firm or Title: ___________________________

Installer's Signature: ___________________________ C-57, C-57a, or A 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.
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></td>
</tr>
<tr>
<td>analysis attached</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>proposed pump cap o.k.</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aquifer Pump 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></td>
</tr>
<tr>
<td>T &amp; S analysis attached</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Well Interference:</th>
<th>Yes</th>
<th>No</th>
<th>If no, describe deficiency</th>
</tr>
</thead>
<tbody>
<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>
<td></td>
</tr>
<tr>
<td>analysis attached</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stream Surface Water Impacted:</th>
<th>Yes</th>
<th>No</th>
<th>If yes, identify most probable stream</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

- **Latitude**: 20° 48' 42"  
- **Longitude**: 156° 35' 42"  

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

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>If no, describe deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>data complete</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>followed Special Cond &amp; elevations</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>well database updated</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

- **Latitude**: NAD27 20° 48' 42"  
- **Longitude**: NAD83 156° 35' 42"  

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

4. Roy ____(initial) check  
5. Subia ____(initial) finalize  
6. Dean ____(initial) signature  
7. Charley/Lenore/Ryan File
August 7, 2003

Mr. James R. Judge
Sugar Way, Ltd.
P.O. Box 33
Makawao, HI 96768

Dear Mr. Judge:

Well Completion Report for Well No. 4835-02

We received your Well Completion Report Part I for the Ukumehame-Sugar Way 1 (Well No. 4835-02) on June 30, 2003 and acknowledge that it is complete.

If the well will have a pump installed, a pump installation permit application is required prior to its installation. In the meantime, if the well is not to be pumped, it should be capped and locked. If the well is to be abandoned, it should be properly sealed under a separate well abandonment permit.

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,

[Signature]
ERNEST Y.W. LAU
Deputy Director

Cl:ss

c: Hugh Starr
Wailani Drilling, Inc.
1. State Well No.: **4835-02**
   Well Name: **Ukumehame-Sugar Way**

2. Address: **west of Ukumehame Stream**
   Tax Map Key: **4-8-2:9**

3. Drilling Company: **Wailani Drilling**

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

5. Date Well Construction (drilled, cased, grouted) completed: **5/11/03**
   Fill out attached Driller’s Log

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

7. Initial water-level encountered: **148** ft. below ground
   Date and time of measurement: **4/21/03**

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

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

Parameters prior to pump test:

10. Water-level: **4.86** ft. above msl
    Date and time of measurement: **5/7/03**

11. Chloride: **380** ppm
    Date and time of sampling: **5/7/03**

12. Temperature: **90.3°F**
    Date and time of measurement: **5/7/03**

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

14. Fill in attached surveyor’s report.

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

16. The proposed manufacturer’s rated pump capacity is **25** gpm at a head of **298** ft.
   (Attach pump specifications and rating curve)

17. Remarks:

---

**Licensed Driller** (print) **Mike Robertson**
C-57 Lic. No. **20115**

Signature

Date **6/10/03**

**Permittee** (print) **SUGAR WAY, LTD.**

Signature

Date **5/23/03**

**JAMES R. JUDGE, Its President**
13. **AS-BUILT WELL SECTION**

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

**Bench mark elevation:**

141.7 ft., msl*
(Survey to nearest 0.01 ft.)

Elevation at top of casing 141.86 ft., msl*
(to nearest 0.01 ft.)

Hole Diameter: 12.5 in.

Minimum of 2' Radius & 4' Thick Concrete Pad

Ground Elevation: 140.7 ft., msl

**Cement Grout:** 100 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:** 4.86 ft., msl*

**Total Depth:** 152 ft.

*msl = mean sea level

---

**Solid Casing Material:**

6-4939-02 SUGAR WAY 1

**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:**
- Schedule 40
- Schedule 80

**PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241):**
- Schedule 40
- Schedule 80
- Schedule 12

**Thermoset Plastic:**

- 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:**

- Perforated
- Screen

**Open Hole:**

Length: N/A ft.
Diameter: __________________ in.
Bottom Elevation: __________________ ft., msl

---

**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
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- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296
Return Receipt Fax Memo

To: Charley Ice
From: Hannah Robertson
Re: WCR I Ukumehame-Sugar Way Well No. 4835-02
     WCR I Ukumehame Environmental Well No. 4834-01

[Marked items]

- Well Completion Report Part I for Ukumehame-Sugar Way Well No.4835-02
- Driller's Log for Ukumehame-Sugar Way Well No.4835-02
- Driller's Log for Ukumehame Environmental Well No.4834-01
- Well Head Elevation Survey for Ukumehame-Sugar Way Well No.4835-02
- Constant Rate Pump Test for Ukumehame-Sugar Way Well No.4835-02
- Pump Curve for Ukumehame-Sugar Way Well No.4835-02
- Pump Curve for Ukumehame Environmental Well No.4834-01

Please check off the above items as received and return the fax to 808/572-0925.
Thank You...............

Sincerely,
Hannah
| FROM: ERNIE | TO: LAU, E. | INIT: | FOR: | PLEASE: |
|___________|___________|_______|_______|__________|
| ANAKALEA, P. | MATHIAS, T. | | Approval | See Me |
| BAUER, G. | NAKAMA, L. | | Signature | Review & Comment |
| CHING, F. | NAKANO, D. | | Information | Take Action |
| DANBARA, S. | OHYE, M. | | | Type Draft |
| FUJII, N. | SAKODA, E. | | | Type Final |
| GOODING, K. | SUBIA, S. | | | File |
| HARDY, R. | SWANSON, S. | | | Xerox ____ copies |
| HIGA, D. | UYENO, D. | | | |
| ICE, C. | YODA, K. | | | |
| IMATA, R. | YOSHINAGA, M. | | | |
| KUNIMURA, I. | | | | |

Make copy of cover sheet for well files
## CONSTANT-RATE PUMP TEST DATA

Pumped Well No. 4835-02  
Observation well no. N/A  
Pumped Well Name Ukumehame-Sugar Way  
Distance between Obs. & Pumped Well N/A ft.  
Target Q 2.5 gpm  
Reference pt. for depth to water 141.86 ft. msl  
Static Water Level @ start of test 4.86 ft. msl  

Water level measurements by:  
- X steel tape  
- □ pressure transducer  
- □ airline

**START TEST**  
Date: 5/1/03  
Time of day: 8:00 a.m.

### Flow Meter Reading Start: 5'  

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<th>Suggested elapsed time t (min)</th>
<th>Actual elapsed time t (min)</th>
<th>Depth to water (nearest 0.1 ft)</th>
<th>Drawdown (unadjusted to nearest 0.1 ft)</th>
<th>Pumping rate Q (gpm)</th>
<th>EC (umhos)</th>
<th>Cl⁻ (mg/l)</th>
<th>Temp. (°F or °C)</th>
<th>Remarks</th>
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Data in this table is for:  
- X Pumped Well  
- □ Observation Well  

Remarks

-380 90.6
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<th>Actual elapsed time t (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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Table 2 (CRPTD Form 12/17/97)

- Data in this table is for Pumped Well or Observation Well.
- Data in this table is for Pumped Well or Observation Well.
- Max possible duration, water level or quality did not stabilize for any 24 period.
- Begin recovery data next page.
- Flow meter reading at end of pumped period:
- 12,025 gals

1 Chloride sampling required
2 Use same ending drawdown figure as start for recovery
Table 2 (CRPTD Form 12/17/97)

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<th>Actual elapsed time (min)</th>
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<th>Pumping rate Q (gpm)</th>
<th>EC (μhos)</th>
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END TEST  Date:  5/7/03  Time of day:  4:50 pm

ADDITIONAL REMARKS:

Person in charge of pump test (print):  mike Robertson

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.
Flow Range: 18 - 32 GPM
Outlet Size: 1½ " NPT
Nominal Dia

Specifications subject to change without notice.
4" Motor Standard, .5 - 5 HP/3450 RPM
6" Motor Standard, 7.5 - 10 HP/3450 RPM.

Performance conforms to ISO 9906 Ann @ 2 ft. min. submergence.
SUBJECT WELL SITE

LATITUDE: N 20° 48' 42"
LONGITUDE: W 156° 35' 42"

GOVERNMENT LAND OF UKUMEAHAME

PLOT PLAN
(Provide Latitude and Longitude of well referenced to NAD27 to nearest second)
**DRILLER'S LOG**

**WELL NUMBER:** 4835-02

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<th>Dates</th>
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<td>Hard Blue Rock</td>
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<tr>
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<td>30 to 32</td>
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<td>128 to 132</td>
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<td>132 to 145</td>
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</tr>
<tr>
<td>145 to 152</td>
<td>AA &amp; Cinders</td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:**
Wailani Drilling Inc. Lic.#C57-20115
Mike Robertson 655 Kulike Road Haiku, Maui, Hawaii 96708
Ph.808 572-2673 Fax 572-0925 Cellular 283-8481

To: Charley Ice
For: Water Resource Commission

March, 2003

Dear Charlie:

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

Ukumehame-SugarWay Well 1, Well No.4835-02

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.
Return Receipt Fax Memo

Charley,

Enclosed are the following items:

- [✓] Start Work Notice for Ukemehame Sugar Way Well 1, Well No. 4835-02
- [✓] Signed Well Construction Permit for Ukemehame Sugar Way Well 1, Well No. 4835-02

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

Yes the original says 2/15/03

Charley, original says 2/15/03

I noted a 2/15/03 as later signature date, which differs from this fax. What is correct date? Is there another document?

Sincerely,

Ann Robertson
March 11, 2003

Linnel Nishioka, Deputy Director  
Commission on Water Resource Management  
Dept. of Land & Natural Resources  
P.O. Box 621  
Honolulu, HI 96821  
Attn: Charlie Ice

Re: Well No. 4835-02  
Well Construction Permit  
Ukumehame-Sugar Way Well 1

Dear Mr. Ice:

Please find attached the fully-executed original Well Construction Permit for the above-captioned well at Ukumehame, Lahaina, Maui, for your files.

If you have any questions, please feel free to call me at: 808-573-0081. Thank you for your assistance.

Sincerely,

Hugh V. Starr

Enclosure

cc: Sugar Way, Ltd.
WELL CONSTRUCTION PERMIT

Ukumehame-Sugar Way Well 1, Well No. 4835-02

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

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management’s Administrative Rules, Section 13-168, entitled “Water Use, Wells, and Stream Diversion Works”, this document permits the construction and testing of Ukumehame-Sugar Way Well 1 (Well No. 4835-02) at west of Ukumehame Stream, Maui, TMK 4-8-2:9, subject to the Hawaii Well Construction & Pump Installation Standards (12/31/97) 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, Hawaiian Administrative Rules.

2. The well construction permit shall be for construction and testing of the well only. A minimum 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: December 6, 2002
Expiration Date: December 6, 2004

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 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: SUGAR WAY, LTD.
Printed Name: By James R. Judge
Driller’s Signature: Michael Robertson
Printed Name:
C-57 License #: 2015 Date: 2/15/03

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

To: Dean Nakano, Acting Deputy Director
Commission on Water Resource Management

FROM: P. Holly McEldowney, Acting Administrator
State Historic Preservation Division

SUBJECT: Chapter 6E-42 Historic Preservation Review – Well Construction/Pump Installation Permit Application for the Proposed Ukumehame-Sugar Way Well #1
(Well No. 4835-01) [State/COWRM] Ukumehame Ahupua’a, Lahaina District, Island of Maui
TMK: (2) 4-8-002: 009

Thank you for the opportunity to review and comment on the Well Construction/Pump Installation Permit Application for the proposed Ukumehame-Sugar Way Well #1, which was received by our staff November 20, 2002.

In 1997, Cultural Surveys Hawaii conducted an archaeological inventory survey on a 440-acre property which includes the two proposed locations of the two well sites. During the survey eighteen historic sites were identified (50-50-08-02,-03,-3165,-3184,-4367,-3831,-4438,-4451, and -4456-4455,4456,4494,4828,3167,4439,4440, and 4453). In our review of the archaeological report documenting the findings of the survey (SHPD DOC NO.: 9908RC71), we agreed with the mitigation proposals that no further archaeological work is necessary at three sites (cattle wall, -3167, and two sugar cane irrigation ditches, -4439, and -4440). Subsequent to further testing at site -4453 it was determined that this site did not require any additional archaeological work (Hammatt 2000). Based on the findings of the inventory survey, it was determined that fourteen of the sites be preserved. Five of the fourteen sites include burial components. Mitigation measures for these sites will be discussed in a Burial Treatment Plan. Mitigation measures for the remaining 10 historic sites to be preserved will be discussed in a Preservation Plan. We have reviewed and accepted the Preservation Plan for the ten historic sites (SHPD DOC NO.: 0008MK12/LOG NO.: 26200). Cultural Surveys Hawaii has prepared a Burial Treatment Plan for the remaining sites which has been reviewed and accepted by our Burials Program and the Maui/Lana’i Islands Burial Council (24 February 2000).

Given the above information, we believe the proposed undertaking will have “no adverse effect” provided the specified conditions of the accepted Burial Treatment Plan are followed.

If you have any questions, please call Cathleen Dagher at (808) 692-8023.

CD:jcn
January 15, 2003

Hallett H. Hammatt, Ph.D.
Cultural Surveys Hawai‘i
733 North Kalāheo Avenue
Kailua, Hawai‘i 96734

Dear Dr. Hammatt:


At its regular meeting held on February 24, 2000, the Maui / Lāna‘i Islands Burial Council (MLIBC) voted unanimously to approve the above-mentioned burial treatment plan as amended through council discussion.

The landowner’s burial treatment plan proposed “preservation-in-place” for four identified burial areas which include: Hiki‘i Heiau (Site 50-50-08-02), Ukumehame Heiau (Site 50-50-08-03), a cemetery site (Site 50-50-08-4494), and a burial site (Site 50-50-08-4828). In agreement with this proposed burial treatment and the wishes of identified lineal descendants, the MLIBC voted unanimously to preserve these sites in place.

The Department of Land and Natural Resources concurs with and supports the Council in its position.

If you have any questions, please call Kana‘i Kapeliela, Burial Sites Program Acting Director, at (808) 692-8037.

Sincerely,

P. HOLLY MCELDOWNEY, Acting Administrator
State Historic Preservation Division

KK
MEMORANDUM

To: Dean Nakano, Acting Deputy Director  
Commission on Water Resource Management

FROM: P. Holly McEldowney, Acting Administrator  
Historic Preservation Division

SUBJECT: Chapter 6E-42 Historic Preservation Review – Well Construction/Pump Installation Permit Application for the Proposed Ukumehame-Sugar Way Well #1 (Well No. 4835-01) [State/COWRM]  
Ukumehame Ahupua’a, Lana’u District, Island of Maui  
TMK: (2) 4-8-002: 009

Thank you for the opportunity to review and comment on the Well Construction/Pump Installation Permit Application for the proposed Ukumehame-Sugar Way Well #1, which was received by our staff 20 November 2002.

In 1997, Cultural Surveys Hawaii conducted an archaeological inventory survey on a 440-acre property which includes the two proposed locations of the two well sites. During the survey eighteen historic sites were identified (50-50-08-02, -03, -3165, -3184, -4367, -4381, -4438, -4451, and -4456-4454, 4455, 4456, 4494, 4828, 3167, 4439, 4440, and 4453). In our review of the archaeological report documenting the findings of the survey (SHPD DOC NO.: 9908RC71), we agreed with the mitigation proposals that no further archaeological work is necessary on three sites (cattle wall, -3167, and two sugar cane irrigation ditches, -4439, and -4440). Subsequent to further testing at site -4453 it was determined that this site did not require any additional archaeological work (Hammatt 2000). Based on the findings of the inventory survey, it was determined that fourteen of the sites be preserved. Five of the fourteen sites include burial components. Mitigation measures for these sites will be discussed in a Burial Treatment Plan. Mitigation measures for the remaining 10 historic sites to be preserved will be discussed in a Preservation Plan. We have reviewed and accepted the Preservation Plan for the ten historic sites (SHPD DOC NO.: 0008MK12/LOG NO.: 26200). Cultural Surveys Hawaii has prepared a Burial Treatment Plan for the remaining sites.

Given the above information, we request that documentation indicating the Burial Treatment Plan has been approved be submitted to our office.

If you have any questions, please call Cathleen Dagher at (808) 692-8023.
December 23, 2002

Mr. Hugh Starr
Sugar Way, Ltd.
P.O. Box 33
Makawao, HI 96768

Dear Mr. Starr:

Well Construction Permit
Ukumehame-Sugar Way Well 1 (Well No. 4835-02)

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

Special Conditions

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

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

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

If you qualify and wish to take advantage of this ruling, please include a written request to install the permanent pump prior to final pump installation permit issuance when you return to us your signed well construction permit.
Please sign and have the contractor sign both permit originals and return one for our files. Also, copies of the aquifer pump test worksheet and the well completion report form are enclosed for your use.

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

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

Aloha,

[Signature]

GILBERT S. COLOMA-AGARAN
Chairperson

Enclosures
WELL CONSTRUCTION PERMIT

ukume-hame-Sugar Way Well 1, Well No. 4835-02

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

In accordance with Department of Land and Natural Resources, Commission on Water Resources Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of Ukume-hame-Sugar Way Well 1 (Well No. 4835-02) at west of Ukume-hame Stream, Maui, TMK 4-8-29, 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 Resources 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 1/4-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, masl) 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: December 6, 2002
Expiration Date: December 6, 2004

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 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: SUGAR WAY, LTD.  Date: 2-13-03
Printed Name: By James R. Judge  Firm or Title: James R. Judge

Driller's Signature: P. G. S.  Date: 2-14-03
Printed Name: Michael R. Jr.  C-57 License #: MCD15

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

Ukumehame-Sugar Way Well 1, Well No. 4835-02

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

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of Ukumehame-Sugar Way Well 1 (Well No. 4835-02) at west of Ukumehame Stream, Maui, TMK 4-8-2-9, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

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   d. Plot plan and map showing the exact location of the well.
   e. Complete pumping test records, including time, pumping rate, drawdown, chloride content, and other data.

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

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Permittee's Signature: ___________________________ Date: ___________________________
Printed Name: ___________________________ Firm or Title: ___________________________

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

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

Attachment

USGS
Department of Health's Safe Drinking Water, Wastewater, and Clean Water Branches
Maui Department of Water Supply
### SECTION 1: WELL LOCATION INFORMATION

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<tr>
<th>Island</th>
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<th>Domestic</th>
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<td>Aquifer Sector</td>
<td>UKUMEHAME</td>
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### SECTION 2: WELL SECTION DATA

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<th><strong>Solid Casing</strong></th>
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<td><strong>Cement Grout</strong></td>
<td>125 ft.</td>
<td>Designation</td>
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<tr>
<td><strong>Rock Packing</strong></td>
<td>10 ft.</td>
<td>Length</td>
</tr>
<tr>
<td><strong>Hole Diameter</strong></td>
<td>12 in.</td>
<td>Diameter</td>
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<tr>
<td><strong>Total Depth</strong></td>
<td>135 ft.</td>
<td>Wall Thickness</td>
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<tr>
<td><strong>Estimated Head</strong></td>
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<td><strong>Casing</strong></td>
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<tr>
<td><strong>Calculated Aquifer Thickness</strong></td>
<td>143.5 ft.</td>
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<td><strong>County Water Supply (Y/N ?)</strong></td>
<td>NO</td>
<td>Designation</td>
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### SECTION 3: CHECKLIST

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<th><strong>Well Depth</strong></th>
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<tr>
<td>Theoretical Thickness of Aquifer</td>
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<td>1/4 Aquifer Thickness</td>
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<tr>
<td><strong>Depth of Well below Sea Level</strong></td>
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<tr>
<td><strong>Well Casing</strong></td>
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<tr>
<td>Minimum Wall Thickness</td>
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<td>Material</td>
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<td>County or Non-County</td>
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<td>Minimum Thickness per standards</td>
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<td><strong>Wall Thickness Provided</strong></td>
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<td><strong>Minimum Length of Solid Casing</strong></td>
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<td>90% of ground to top of aquifer</td>
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<td><strong>Length of solid casing Provided</strong></td>
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<td><strong>Casing Material</strong></td>
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<td><strong>Annular Space</strong></td>
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<td><strong>Depth of Grouting</strong></td>
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<td><strong>Thickness of Annular Space</strong></td>
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DATE: 09 December 02  
SUSPENSE DATE:  

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<td>UNIMURA, I.</td>
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Please:
1. See Me  
2. Review & Comment  
3. Take Action  
4. Type Draft  
5. File  
   Xerox copies

WELL NUMBER 4835-02  WELL NAME Ukumehame - Sugar Way 1

WELL CONSTRUCTION

ATTACHMENTS FOR WELL CONSTRUCTION PERMIT:
1. COVER LETTER  
2. PERMIT (2x)  
3. COMMENTS  
4. SDWB  
5. WWB  
6. CBW  
7. HEER  
8. LD  
9. PUMP TEST  
10. WCR I FORM

TO BE SENT TO APPLICANT

FOR OFFICE USE ONLY

PUMP INSTALLATION

ATTACHMENTS FOR PUMP INSTALLATION PERMIT:
1. COVER LETTER  
2. PERMIT (2x)  
3. COMMENTS  
4. SDWB  
5. WWB  
6. CBW  
7. HEER  
8. LD  
9. WCR II FORM  
10. WUR FORM

TO BE SENT TO APPLICANT

FOR OFFICE USE ONLY
Date: Dec 6, 2002  Total Pages: 2

To: Charlie Ice  
   Water Commission

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

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

   4035-01  (2)4-8-2:9  
   Ukumunae - Sugar W.  
   Well #1

   Well No. 4035-01

Please find attached a copy of the above subject project. The hard copy will be sent via messenger to you.

Please call or email me if you do not receive it within a week, I can re-fax it to you.

Aloha, Lori
TO: Honorable Bruce S. Anderson, Director
Department of Health
Attention: Dennis Tuijano, Wastewater Branch
William Wong, Safe Drinking Water Branch
Dr. Keith Kawakita, Hazardous Evaluation and Emergency Response
Alec Wong, Clean Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application
Ukumehame-Sugar Way Well #1 (Well No. 4535-01)

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by November 26, 2002. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Charley Tice of the Commission staff at 587-0231.

Cl: All NPDES
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 DOH approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 30, Rules Relating to Potable Water Systems, §11-21-20.

[ ] 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 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 all minute cross-connections and backflow connections by physically separating potable and non-potable systems by an air gap or approved backflow preventer, and by clearly labeling all non-potable aspects 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 applicants information, a source of possible wastewater contamination [ ] is not located near the proposed well site (information attached).

[ ] An NPDES permit is required.

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

[X] No comments/objections

Contact Person: Lori Kajiwara
Phone: 586-2294

Signed: Lori N. Kajiwara
Date: 12-3-2002
TO: Honorable Bruce S. Anderson, Director
Department of Health
Attention: Dennis Tulang, Wastewater Branch
William Wong, Safe Drinking Water Branch
Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
Alec Wong, Clean Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application
Ukumehame-Sugar Way Well #1 (Well No. 4835-01)

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by November 25, 2002. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

CLASS: Attachment(s)

RESPONSE:

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

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

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

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

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

[ ] An NPDES permit is required.

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

[ ] No comments/objections

Contact Person: Lori Kajiwara
Phone: 587-2947

Signed: Lori N. Kajiwara
Date: 12/3/02

COMMISSION ON WATER RESOURCE MANAGEMENT

RECEIVED...
TO: Honorable Bruce S. Anderson, Director
Department of Health
Attention: Dennis Tulang, Wastewater Branch
William Wong, Safe Drinking Water Branch
Dr. Keith Kawoaka, Hazardous Evaluation and Emergency Response
Alec Wong, Clean Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application
Ukumehame-Sugar Way Well #1 (Well No. 4835-01)

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by November 25, 2002. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

Class
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, §11-20-29.

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

14. If the well is used to supply both potable and non-potable sources 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 sources 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 [map] is not located near the proposed well site (information attached).

1. An NPDES permit is required.

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

1. No comments/objections

Contact Person: WILLIAM WONG Phone: 586-4258
Signed: William Wong Date: 12/03/02
TO: Honorable Bruce S. Anderson, Director
Department of Health
Attention: Dennis Tulang, Wastewater Branch
William Wong, Safe Drinking Water Branch
Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
Alec Wong, Clean Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by November 26, 2002. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

Class Attachment(s)

RESPONSE:

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

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

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

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

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

[ ] An NPDES permit is required.

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

[ ] No comments/objections

Contact Person: Alec Wong  Phone: 586-4309
Signed: Alec Wong  Date: 11/27/02

Nov-27-2002  11:08am  From DEPT OF HEALTH ENVIRONMENTAL MGMT  8085864352  T-725  P.002/002  F-664
The Department of Health, Clean Water Branch has the following comments:

1. For Well-Drilling Activities

Any discharge to State waters of treated process wastewater effluent associated with well drilling activities is regulated by Hawaii Administrative Rules, Title 11, Chapter 55, Appendix I, effective September 22, 1997. Treated process wastewater effluent covered by this general permit includes well drilling slurries, lubricating fluids wastewaters, and well purge wastewaters. This general permit does not cover well pump testing. The applicable Notice of Intent Forms and filing fee shall be submitted at least thirty (30) days before the start of discharge to the Department of Health, Clean Water Branch at 919 Ala Moana Boulevard, Room 301, Honolulu, Hawaii 96814-4920 or P.O. Box 3378, Honolulu, Hawaii 96801-3378. Inquiries may be directed to the Clean Water Branch at (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.

JS/cr
TO: Honorable Bruce S. Anderson, Director
Department of Health
Attention: Dennis Tulang, Wastewater Branch
William Wong, Safe Drinking Water Branch
Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
Alic Wong, Clean Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application
UKUMEMAME-SUGAR WAY WELL #1 (WELL NO. 4835-01)

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by November 25, 2002. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

CI:ss
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, §11-20-29.

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

3. 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 systems with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested.

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

5. For the applicant's information, a source of possible wastewater contamination [yes [ ] no [ ] ] is located near the proposed well site (information attached).

6. An HPDES permit is required.

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

8. No comments/objections.

Contact Person: Dr. Keith Kawaoka
Phone: 586-4249

Signed: /s/ Date: 11/25/02

Fax: Commission on Water Resources Mgt. 587-0219
TO: Dede Mamiya, Administrator  
Land Division  

FROM: Linnel T. Nishioka, Deputy Director  
Commission on Water Resource Management  

SUBJECT: Well Construction/Pump Installation Permit Application  
Ukumehame-Sugar Way Well #1 (Well No. 4835-01)  

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application. We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. Please respond by returning this cover memo form by November 25, 2002. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.  

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

Ci:ss  
Attachment(s)  

RESPONSE:

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

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

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

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

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

[ ] No objections  

[ ] Other comments: Original source of private title is Grant No. 4973 issued prior to Statehood in 1959.

Contact Person: Gary Martin  
Phone: 587-0421

Signed: Gary Martin  
Date: NOV 21 2002
Mr. Hugh Starr  
Sugar Way, Ltd.  
P.O. Box 33  
Makawao, Maui, HI 96768  

Dear Mr. Starr:  

Well Construction/Pump Installation Permit Application for Well No. 4835-

We acknowledge receipt, on October 30, 2002, of your completed Well Construction/Pump Installation permit application and filing fee for the Ukumehame-Sugar Way Well #1 (Well No. 4835-01). You can expect your application to be processed within ninety (90) days from this date. We received an application for a second well, which we understand will be drilled depending on the results of the first. We are holding acceptance of the second application until those results meet your satisfaction, to maximize the legal duration of the permit for work on the second well.

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 Iice of the Commission staff at 587-0251 or toll-free at 984-2400 extension 70251.

Sincerely,

Linnel T. Nishioka  
Deputy Director
TO: Honorable Bruce S. Anderson, Director
Department of Health
Attention: Dennis Tulang, Wastewater Branch
William Wong, Safe Drinking Water Branch
Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
Alec Wong, Clean Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application
Ukumehame-Sugar Way Well #1 (Well No. 4835-QA)

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by November 25, 2002. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

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

Class: Attachment(s)

RESPONSE:

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

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

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

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

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

[ ] An NPDES permit is required.

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

[ ] No comments/objections

Contact Person: ____________________________  Phone: ____________________________

Signed: ____________________________  Date: ____________________________
Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. Please respond by returning this cover memo form by November 25, 2002. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

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

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

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

- No objections

- Other comments:

Contact Person: _________________________ Phone: _________________________

Signed: _________________________ Date: _________________________
Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. Please respond by returning this cover memo form by November 25, 2002. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

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

RESPONSE:

[ ] There may be areas in the vicinity of the well site that contain subsurface cultural remains such as artifacts, burials or concentrations of shells or charcoal.

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

[ ] No objections

[ ] Other comments:

Contact Person: ____________________________ Phone: ____________

Signed: ____________________________ Date: ____________
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<th>DOCUMENT NO.</th>
<th>F YR APPD</th>
<th>SRC OBJ</th>
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REMARKS: LINE (1) Filing fee (4835-01)
LINE (2)
LINE (3)
LINE (4)
**MISSION**

**WATER RESOURCE MANAGEMENT**

**ROUTE SLIP FOR NEW APPLICATIONS**

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<th>DATE: 29-Oct-02</th>
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WELL NUMBERS: 48 35- 02

WELL NAME: **Ukumehame 1&2**

**ATTACHMENTS FOR APPLICATION PROCESSING** - Both applicant & staff generated

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<tr>
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- **X** FILE FOLDER ALREADY MADE, IN FILE CABINET

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**COMMISSION ON WATER RESOURCE MANAGEMENT**

**FROM:** LINNEL  
**TO:**  
**DATE:** OCT 25 2002  
**Suspense Date:**  

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October 24, 2002

Linnel Nishioka, Deputy Director
Commission on Water Resource Management
Dept. of Land & Natural Resources
P.O. Box 621
Honolulu, HI 96821
Attn: Charlie Ice

Re: Applications for Permit for Well Construction
Ukumehame Wells 1 and 2 [TMK: (2) 4-8-2:09]

Dear Mr. Ice:

Please find attached two separate applications for permits for well construction at Ukumehame, Lahaina, Maui.

If you have any questions, please feel free to call me at: 808-573-0081. Thank you for your assistance.

Sincerely,

Hugh Y. Starr

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

21 Oct 02

Well Construction and/or Pump Installation

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 5 copies and a self-addressed, stamped return of $20.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 587-0225. For further information and updates to this application form, visit http://www.state.hi.us/wrwm.

APPLICANT INFORMATION:

1. (a) WELL OWNER: Sugar Way, Ltd. PO Box 33, Makawao, HI 96768
   Contact Person: Hugh Starr
   Phone: (808) 573-0081
   Fax: 808) 573-0090
   E-mail: starr@maui.net

   (b) LAND OWNER: Sugar Way, Ltd.
   Contact Person: Hugh Starr
   Phone: (808) 573-0081
   Fax: (808) 573-0090
   E-mail: starr@maui.net

   (c) CONTRACTOR: to be determined
   Contact Person: ____________________________
   Phone: ____________________________

WELL & PUMP INFORMATION:

2. WELL NAME: Ukumehame Well #1
   Island: Maui
   Address: Ukumehame, Maui, Hawaii
   Tax Map Key: 4 - 8 - 20 - 09

   Attach: (a) portion of a 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
   (b) a property tax map, showing well location referenced to established property boundaries

3. PROPOSED WORK:
   (check all that apply)
   • Construct New Well
   • Install New Pump
   • Modify Existing Well
   • Modify Pump
   • Abandon/Seal
   • Other (please describe)
   "State Well No.: _______(if unknown, please call Commission at 587-0225)

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

5. PROPOSED PUMPING RATE: 20 gallons per minute

6. PROPOSED USE:
   (check all that apply)
   □ Municipal (including hotels, stores, etc.)
   □ Industrial
   □ Domestic (individual, noncommercial water system)

   Does this well serve 25 or more people at least 60 days per year or have 15 or more service connections? □Yes □No

   □ Irrigation
   □ No. of Acres: ________

   □ Military

   □ Other (please describe): ____________________________

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 10,000 gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   □ Flowmeter □ Open-pipe □ Weir □ Orifice □ Other (please describe)

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS: If required, these permits must be obtained before the Commission can legally issue a permit.
   Conservation District Use Permit (CDUP): To find out if a CDUP is necessary, call DLNR Land Division at 587-0414
   Environmental Impact Statement (EIS) or Environmental Assessment (EA): To determine if an EIS or EA is necessary, call OECG at 586-4185
   Special Management Area Permit (SMAP): To determine if an SMAP is necessary: on Oahu, call 527-5374; on Hawaii, call 961-6288; for Maui county, call 270-7230; on Kauai, call 241-6677.

9. REMARKS, EXPLANATIONS:
   Well for Ag lots

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

NOTE: Signing below indicates the signatories understand and swear that the information provided on this application is accurate and true to the best of their knowledge. Further, the signatories understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within 2 (two) years of the approval date; 2) the contractor shall submit to the Commission a well completion/bailment report within 60 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity; 5) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $1000/day.

Well Owner (print legibly) ____________________________
Signature ____________________________
Date ____________________________

Landowner (print legibly) ____________________________
Signature ____________________________
Date ____________________________

Contractor (print legibly) ____________________________
Signature ____________________________
Date ____________________________

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

WCPAA Form 02/1/01

Applicant's Name: Sugar Way, Ltd.
Address: PO Box 33, Makawao, HI 96768
Phone: (808) 573-0081
Fax: (808) 573-0090
E-mail: starr@maui.net

Official Use Only:

RECEIVED
02 OCT 25 ALL: 52
30 OCT 02
Welcom w/Hugh Starr
now selected yet
10. PROPOSED WELL SECTION

(Please attach schematic if 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
- Stainless Steel: (check one): □ ASTM A409 (production wells) □ ASTM A312 (monitor wells)
- PVC Plastic conforming to ASTM F490 and ASTM D1527: (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 C960
  □ PTFE Fluorocarbon Tubing conforming to ASTM D3296
  □ FEP Fluorocarbon Tubing conforming to ASTM D3296

**Open Casing Material:**
- Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
- Stainless Steel: (check one): □ ASTM A409 (production wells) □ ASTM A312 (monitor wells)
- PVC Plastic conforming to ASTM F490 and ASTM D1527: (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 C960
  □ PTFE Fluorocarbon Tubing conforming to ASTM D3296
  □ FEP Fluorocarbon Tubing conforming to ASTM D3296

**Solid Casing:** (≥ 90% x [Ground Elev. - Water Level Elev.])
- Total Length: 125 ft.
- Nominal Diameter: 6 in.
- Wall Thickness: 0.38 in.
- Bottom Elevation: -5 ft. ms

**Open Casing:**
- Perforated: X Screen
- Total Length: 10 ft.
- Nominal Diameter: 6 in.
- Wall Thickness: 0.38 in.
- Bottom Elevation: -15 ft. ms

**Total Depth:** 135 ft.

**Cement Grout:** 125 ft.
(min. 70% of distance from ground elevation to top of water surface or 500 ft. whichever is less.)

**Anular space between hole and casing (min. 3")**
- 3 in.

**Rock or Gravel Packing:**
- Material:
  □ Crushed Basalt
  □ Rounded Gravel

**Estimated Water Level Elevation:** +3.5 ft. ms

**Ground Elevation:** 120 ft. ms

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

*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 shall not be deeper than 1/4 of aquifier thickness or,

Bottom Elevation of Well Limit = (Water Elevation - 41 x Water Level Elev) / 4

Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = (2 - 41 x +2) / 4 = -18.5 ft.

**Schematic Diagram:**

- Diagram includes layout and specifications of well components and casing materials.

**Diagram Details:**
- Hole Diameter: 12 in.
- Total Length: 125 ft.
- Nominal Diameter: 6 in.
- Wall Thickness: 0.38 in.
- Bottom Elevation: -5 ft. ms

**Material Compatibility:**
- Referenced to applicable standards and specifications for well construction.

**Well #1:**
- Diagram provides a detailed schematic of the proposed well section with labeled dimensions and materials.

**Ground Elevation:**
- 120 ft. ms

**Water Level Elev:**
- +3.5 ft. ms

**Total Depth:**
- 135 ft.

**Cement Grout:**
- 125 ft.

**Anular space between hole and casing:**
- 3 in.

**Rock or Gravel Packing:**
- Crushed Basalt
- Rounded Gravel

**Estimated Water Level Elevation:**
- +3.5 ft. ms

**Ground Elevation:**
- 120 ft. ms

**Hole Diameter:**
- 12 in.

**Total Length:**
- 125 ft.

**Nominal Diameter:**
- 6 in.

**Wall Thickness:**
- 0.38 in.

**Bottom Elevation:**
- -5 ft. ms

**Note:**
- Neither bentonite nor mud should be used in saturated zones or elevation children.
To The Commission:

We, the undersigned, acknowledge this Application for Permit for Well Construction for Ukumehame Wells #1 and #2.

Well Owners (7):

1. Hugh Farrington
   Well Owner (print)
   Hugh Farrington 4-30-02
   Signature

2. John Kean
   Well Owner (print)
   John Kean 4-30-02
   Signature

3. Ukumehame Quarry
   Well Owner (print)
   Ukumehame Quarry 4-30-02
   Signature

4. Sugar Way, Ltd.
   Well Owner (print)
   By James C. Haynes II
   4-30-02
   Signature

5. James C. Haynes II
   Well Owner (print)
   James C. Haynes II 4-30-02
   Signature

6. Well Owner (print)
   Signature

7. Well Owner (print)
   Signature

Land Owners (7):

1. Hugh Farrington
   Land Owner (print)
   Hugh Farrington 4-30-02
   Signature

2. John Kean
   Land Owner (print)
   John Kean 4-30-02
   Signature

3. Ukumehame Quarry
   Land Owner (print)
   Ukumehame Quarry 4-30-02
   Signature

4. Sugar Way, Ltd.
   Land Owner (print)
   By James C. Haynes II
   4-30-02
   Signature

5. James C. Haynes II
   Land Owner (print)
   James C. Haynes II 4-30-02
   Signature

6. Land Owner (print)
   Signature

7. Land Owner (print)
   Signature
Alluvial deposits of the Ukumehame Stream

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

X Well Construction and/or X Pump Installation

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 811, Honolulu, Hawaii 96808. Application must be accompanied by 5 copies and a non-refundable filing fee of $25.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 808-662-2225. For further information and updates to this application form, visit http://www.state.hi.us/dlr/cwrm.

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

1. (a) □ WELL OWNER: Sugar Way, Ltd. Contact Person: Hugh Starr Phone: 808) 573-0090 Fax: 808) 573-0090 Email: starr@maui.net

Mailing Address: PO Box 33, Makawao, HI 96768
Fax: 808) 573-0090
E-mail: starr@maui.net

(b) □ LAND OWNER: Sugar Way, Ltd. Contact Person: Hugh Starr Phone: 808) 573-0081

Mailing Address: PO Box 33, Makawao, HI 96768
Fax: 808) 573-0090
E-mail: starr@maui.net

(c) □ CONTRACTOR: to be determined Contact Person: Phone:

Mailing Address: Fax: E-mail: 

2. WELL NAME: Ukumehame Well #1 Island: Maui

Address: Ukumehame, Maui, Hawaii Tax Map Key: Zone Sec. Plat. Parcel

3. PROPOSED WORK: (check all that apply)

☐ Construct New Well
☐ Modify Existing Well
☐ Abandon/Seal*
☐ Install New Pump*
☐ Modify Pump*

4. CONSTRUCTION:

☐ Drilled
☐ Dug
☐ Shaft
☐ Tunnel

5. PROPOSED PUMPING RATE: _ ______ gallons per minute

6. PROPOSED USE: (check all that apply)

☐ Municipal (including hotels, stores, etc.)
☐ Industrial
☐ Domestic (individual, non-commercial water system)
☐ Irrigation (crop)
☐ No. of Acres:
☐ Military
☐ Other (explain): ________________

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 10,000 gallons per day

(b) METHOD OF FLOW MEASUREMENT: ☐ Flowmeter ☐ Open-pipe ☐ Weir ☐ Orifice ☐ Other (explain):

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

Conservation District Use Permit (CDUP) To find out if a CDUP is necessary, call DLNR Land Division at 808-662-2225.
☐ Not Required. If required, date approved ____________

Environmental Impact Statement (EIS) or Environmental Assessment (EA) To determine if an EIS or EA is necessary, call DEPR at 808-648-2225.
☐ Not Required. If required, date published in DEPR bulletin ____________

Special Management Area Permit (SMAP) To determine if a SMAP is necessary: on Oahu, call 527-5374; on Hawaii, call 961-8288; for Maui county, call 270-7235; on Kauai, call 241-8677.
☐ Not Required. If required, date approved ____________

9. REMARKS, EXPLANATIONS: Well for Ag lots

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

NOTE: Signing below indicates the signatories understand and swear that the information provided on this application is accurate and true to the best of their knowledge. Further, the signatories understand that approval of this application is subject to 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 60 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 corrective water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity; 5) if the event that the application is not completed, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $1000/day.

Well Owner

(print legibly)

Well Owner

(print legibly)

Signature

(print legibly)

Signature

Date

Date

Landowner

Contractor

For official use only

Latitude

Aquifer System No.

Longitude

State Well No.

WCPPA Form 82161
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Elevation at top of casing: 121 ft. msl

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

Ground Elevation: 120 ft. msl

Hole Diameter: 12 in.

Solid Casing: [a 90% x (Ground Elev - Water Level Elev)]

Total Length: 125 ft.

Nominal Diameter: 6 in.

Wall Thickness: 0.38 in.

Bottom Elevation: 5 ft. msl

Open Casing:

Perforated Screen

Total Length: 10 ft.

Nominal Diameter: 6 in.

Wall Thickness: 0.38 in.

Bottom Elevation: -15 ft. msl

Open Hole:

Length: NA ft.

Diameter: NA in.

Bottom Elevation: NA ft. msl

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

Example: Estimated + 2 ft. Water Level Elev. = Bottom Elevation of Well Limit = (Water Elevation - 3.5 ft. Water Level Elev.) / 4

For non-seawater Basin Wells - bottom elevation of well shall not be deeper than 1/4 of aquifer thickness or,

Bottom Elevation of Well Limit = (Ground Elevation + 0.25 x Aquifer Thickness) / 4

Solid Casing Material:

Carbon Steel: compliant with (check one or more):
- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139

Stainless Steel: (check one):
- ASTM A409 (production wells)
- ASTM A312 (monitor wells)

ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one) Schedule 40 Schedule 80

PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2341): (check one) Schedule 40 Schedule 80 Schedule 120

Thermoset Plastic: (check one)
- Filament Wound Resin Pipe conforming to ASTM D2296
- Centrifugally Cast Pipe conforming to ASTM D1697
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:

Carbon Steel: compliant with (check one or more): ANSI/AWWA C200 API Spec. 5L ASTM A53 ASTM A139

Stainless Steel: (check one):
- ASTM A409 (production wells)
- ASTM A312 (monitor wells)

ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one) Schedule 40 Schedule 80

PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2341): (check one) Schedule 40 Schedule 80 Schedule 120

Thermoset Plastic: (check one)
- Filament Wound Resin Pipe conforming to ASTM D2296
- Centrifugally Cast Pipe conforming to ASTM D1697
- 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
To The Commission:

We, the undersigned, acknowledge this Application for Permit for Well Construction for Ukumehame Wells #1 and #2.

Well Owners (7):

1. Hugh Farrington
   Well Owner (print)
   Signature Date
   Hugh Farrington 4-30-02

2. John Keen
   Well Owner (print)
   Signature Date
   John Keen 4-30-02

3. Ukumehame Quarry
   J. Stephen Goodfield
   Well Owner (print)
   Signature Date
   J. Stephen Goodfield 4-30-02

4. Sugar Way Ltd
   By James R. Judge 4-30-02
   Signature Date
   James R. Judge 4-30-02

5. James J.C. Haynes II
   Well Owner (print)
   Signature Date
   James J.C. Haynes II 4-30-02

6. 
   Well Owner (print)
   Signature Date

7. 
   Well Owner (print)
   Signature Date

Land Owners (7):

1. Hugh Farrington
   Land Owner (print)
   Signature Date
   Hugh Farrington 4-30-02

2. John Keen
   Land Owner (print)
   Signature Date
   John Keen 4-30-01

3. Ukumehame Quarry
   J. Stephen Goodfield
   Land Owner (print)
   Signature Date
   J. Stephen Goodfield 4-30-02

4. Sugar Way Ltd
   By James R. Judge 4-30-02
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   Signature Date
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   Land Owner (print)
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Location Map of Ukumehame on Maui
Alluvial deposits of the Ukumehame Stream

Proposed Exploration Well #1

Possible Location of Well #2

Hypothetical cross section of valley
Proposed Exploration Well #1

Proposed Well #2 based on findings from Well #1

Aerial Photo of Proposed Well Sites
State of Hawaii  
COMMISSION ON WATER RESOURCE MANAGEMENT  
Department of Land and Natural Resources  
APPLICATION FOR PERMIT  

[Form Header]  

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

1. WELL NAME: Ukumehame Well #1  
2. WELL ADDRESS: Ukumehame, Maui, Hawaii  
3. TAX MAP KEY:  
   Zone: 4  
   Sec: 8  
   Plat: 2  
   Parcel: 09  

4. ATTACHMENT: a) portion of a 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map  
   b) a property tax map, showing well location referenced to established property boundaries  

5. PROPOSED WORK:  
   - Construct New Well  
   - Modify Existing Well  
   - Abandon/Sell  

6. CONSTRUCTION:  
   - Drilled  
   - Dug  
   - Shaft  
   - Tunnel  

7. PROPOSED PUMPING RATE:  
   - 20 gallons per minute  

8. PROPOSED USE:  
   - Municipal (including hotels, stores, etc.)  
   - Industrial  
   - Domestic (individual, noncommercial water system)  

9. OTHER IMPORTANT INFORMATION:  

   a) LEGAL REQUIREMENTS: if required, these permits must be obtained before the Commission can legally issue a permit.  
   b) CONSERVATION DISTRICT USE PERMIT (CDUP): To find out if a CDUP is necessary, call DLNR Land Division at 587-0414  
   c) ENVIRONMENTAL IMPACT STATEMENT (EIS) OR ENVIRONMENTAL ASSESSMENT (EA): To determine if an EIS or EA is necessary, call OEQC at 586-4185.  
   d) SPECIAL MANAGEMENT AREA PERMIT (SMAP): To determine if SMAP is necessary: on Oahu, call 527-5374; on Maui, call 961-6288; for Kauai, call 241-6677.  

10. REMARKS, EXPLANATIONS: Well for Ag lots  

[Form Footer]
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

- Hole Diameter: 12 in.
- Minimum of 2' Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)
- Ground Elevation: 120 ft., mas

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

Solid Casing: (Ground Elev-Water Level Elev)
- Total Length: 125 ft.
- Nominal Diameter: 6 in.
- Wall Thickness: 0.38 in.
- Bottom Elevation: -15 ft., mas

Open Casing: (check one):
- Perforated Screen
- Total Length: 10 ft.
- Nominal Diameter: 6 in.
- Wall Thickness: 0.38 in.
- Bottom Elevation: -15 ft., mas

**Note:** Neither bentonite nor mud should be used in saturated zone during drilling.

**Open Hole:**
- Length: NA ft.
- Diameter: NA in.
- Bottom Elevation: NA ft., mas

*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 report 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 shall not be deeper than 1.4 times the aquifer thickness or,

Bottom Elevation of Well Limit = \( \frac{\text{Water Level Elev.} - \text{Well Level Elev.}}{4} \cdot \text{m} \)

Example: Estimated 2 ft. Water Level Elev. \( \rightarrow \) Bottom Elevation of Well Limit = \( \frac{2 \cdot \text{m}}{4} = 0.5 \text{ ft.} \)

**Solid casing Material:**
- Carbon Steel: compliant with (check one or more): AWWA C200, API Spec. 5L, AASHTO A53, ASTM A139
- Stainless Steel: compliant with (check one or more): ASTM A240, Type E, Type S, Grade B, Other
- ABS Plastic: compliant with (check one or more): ASTM F490, ASTM D1527, Schedule 40, Schedule 80
- PVC Plastic: compliant with ASTM F490 and ASTM D1785 or ASTM D22412 (check one): Schedule 40, Schedule 80, Schedule 120
- Thermoset Plastic: (check one):
  - Filament Wound Resin Pipe conforming to ASTM D3298
  - Centrifugally Cast Resin Pipe conforming to ASTM D5997
  - Reinforced Plastic Composite Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Plastic 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): AWWA C200, API Spec. 5L, AASHTO A53, ASTM A139
- Stainless Steel: compliant with (check one or more): ASTM A240, Type E, Type S, Grade B, Other
- ABS Plastic: compliant with (check one or more): ASTM F490, ASTM D1527, Schedule 40, Schedule 80
- PVC Plastic: compliant with ASTM F490 and ASTM D1785 or ASTM D22412 (check one): Schedule 40, Schedule 80, Schedule 120
- Thermoset Plastic: (check one):
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  - Centrifugally Cast Resin Pipe conforming to ASTM D5997
  - Reinforced Plastic Composite Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Plastic Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - FEP Fluorocarbon Tubing conforming to ASTM D3296

**Total Depth:** 135 ft.
To The Commission:

We, the undersigned, acknowledge this Application for Permit for Well Construction for Ukumehame Wells #1 and #2.

Well Owners (7):

1. Hugh Farrington
   Well Owner (print)
   Signature Date
   Signature Date

2. John Kean
   Well Owner (print)
   Signature Date
   Signature Date

3. Ukumehame Quarry
   J. Stephen Goodlad
   Well Owner (print)
   Signature Date
   Signature Date

4. Sugar Way, Ltd.
   By James R. Judge
   Land Owner (print)
   Signature Date
   Signature Date

5. James J. C. Haynes II
   Well Owner (print)
   Signature Date
   Signature Date

6. 
   Well Owner (print)
   Signature Date
   Signature Date

7. 
   Well Owner (print)
   Signature Date
   Signature Date

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   Land Owner (print)
   Signature Date
   Signature Date

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   Signature Date
Location Map of Ukumehame on Maui
Alluvial deposits of the Ukumehame Stream

Hypothetical cross section of valley
USGS Map of Proposed Well Sites
Proposed Exploration Well #1

Proposed Well #2 based on findings from Well #1

Aerial Photo of Proposed Well Sites
State of Hawaii
Commission on Water Resource Management
Department of Land and Natural Resources
Application for Permit

Well Construction and/or Pump Installation

Applicant Information:

1. (a) Well Owner: Sugar Way, Ltd.
   Contact Person: Hugh Starr
   Mailing Address: PO Box 33, Makawao, HI 96768
   Fax: 808) 573-0090
   E-mail: starr@maui.net

   (b) Land Owner: Sugar Way, Ltd.
   Contact Person: Hugh Starr
   Mailing Address: PO Box 33, Makawao, HI 96768
   Fax: 808) 573-0090
   E-mail: starr@maui.net

   (c) Contractor: to be determined
   Mailing Address: 
   Fax: 
   E-mail: 
   Lic #: 

Well & Pump Information:

2. Well Name: Ukumehame Well #1
   Island: Maui
   Address: Ukumehame, Maui, Hawaii
   Tax Map Key: 4 8 2 09
   Zone: Sec: Parc: Parcel
   Attach: (a) portion of a 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the grid map (b) a property tax map, showing well location referenced to established property boundaries

3. Proposed Work:
   (check all that apply)
   - Construct New Well
   - Install New Pump
   - Modify Existing Well
   - Modify Pump
   - Abandon/Seal

   "State Well No.: 
   (if unknown, please call Commission at 587-0225)

4. Construction:
   - Drilled
   - Dug
   - Shaft
   - Tunnel
   Is this well part of a battery of wells? Yes No (Please describe)

5. Proposed Pumping Rate: 20 gallons per minute

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

7. (a) Proposed Amount of Withdrawal:
   - 10,000 gallons per day
   (b) Method of Flow Measurement:
   - Flowmeter
   - Open pipe
   - War
   - Orifice
   - Other (explain):

Other Important Information:

8. Legal Requirements:
   (a) If required, these permits must be obtained before the Commission can legally issue a permit.
   Conservation District Use Permit (CDUP): To find out if a CDUP is necessary, call DLNR Land Division at 587-0414
   (b) Not Required
   Environmental Impact Statement (EIS) or Environmental Assessment (EA): To determine if an EIS or EA is necessary, call DOE at 586-4185
   (c) Not Required
   Special Management Area Permit (SMAP): To determine if a SMAP is necessary: on Oahu, call 527-5374; on Kauai, call 808-527-5374, for Maui county, call 527-5374; on Oahu, call 808-527-5374, for Maui county, call 527-5374; on Kauai, call 808-527-5374.
   (d) Not Required

9. Remarks, Explanations:
   Well for Ag lots

If more space is needed, please attach additional sheet.

NOTE: Signing below indicates the signatories understand and agree that the information provided on this application is accurate and true to the best of their knowledge. Further, the signatories understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within 2 (two) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 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 consumptive water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity. In the event the application is not completed correctly, any permit may be suspended until the item is brought into compliance, and any work done while the permit is in suspension may result in fines of up to $1000/day.

Well Owner
(pencil legibly)
Signature
Date
Landowner
(pencil legibly)
Signature
Date
Contractor
(pencil legibly)
Signature
Date

For official use only
Latitute
Aquifer System No.

Longitude
State Well No.
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Elevation at top of casing 121 ft. msl
Hole Diameter: 12 in.
Minimum of 2' Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)
Ground Elevation: 120 ft. msl

Concrete Grout: 125 ft. (min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)
Annular space between hole and casing (min.3": 3 in.
Rock or Gravel Packing: 10 ft.
Material:

- Crushed Basalt
- Rounding Gravel

Estimated Water Level Elevation: +3.5 ft. msl

Solid Casing: ≥ 90% x (Ground Elev.-Water Level Elev.)
Total Length: 125 ft.
Nominal Diameter: 6 in.
Wall Thickness: 0.38 in.
Bottom Elevation: -5 ft. msl

Open Casing: 
Total Length: 10 ft.
Nominal Diameter: 6 in.
Wall Thickness: 0.38 in.
Bottom Elevation: -15 ft. msl

Solid Casing: ≥ 90% x (Ground Elev.-Water Level Elev.)
Total Length: 125 ft.
Nominal Diameter: 6 in.
Wall Thickness: 0.38 in.
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Open Casing: 
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Bottom Elevation: -15 ft. msl

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

For non-saline water Basalt Wells - bottom elevation of well shall not be deeper than 1/4 of aquifer thickness or,
Bottom Elevation of Well Limit = \( \frac{\text{Water Elevation} - \text{Water Level Elev.}}{4} \)

Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = \( \frac{2 - \frac{4.5 + 0.38}{4}}{4} \) = -9.6 ft.

**Solid Casing Material:**

- Carbon Steel: compliant with (check one or more): □ AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
- 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 D3228 □ FEP Fluorocarbon Tubing conforming to ASTM D3228

**Open Casing Material:**

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**Well Owners (7):**

1. **Hugh Farrington**
   - Well Owner (print)
   - Signature
   - Date: 4-30-02

2. **John Kean**
   - Well Owner (print)
   - Signature
   - Date: 4-30-02

3. **Ukumehame Quarry**
   - Well Owner (print)
   - Signature
   - Date: 4-30-02

4. **Sugar Way, Ltd.**
   - Well Owner (print) by James R. Judge
   - Signature
   - Date: 4-30-02

5. **James J.C. Haynes II**
   - Well Owner (print)
   - Signature
   - Date: 4-30-02

6. **Well Owner (print)**
   - Signature
   - Date

7. **Well Owner (print)**
   - Signature
   - Date

**Land Owners (7):**

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   - Signature
   - Date: 4-30-02

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Alluvial deposits of the Ukumehame Stream

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Hypothetical cross section of valley
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Proposed Exploration Well #1

Proposed Well #2 based on findings from Well #1
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

[Signature] (print legibly)
Capacity; 5)
Well & Pump Information:

- PROPOSED WORK:
  - Construct New Well
  - Modify Existing Well
  - Abandon/Seal

- PROPOSED USE:
  - Municipal (including hotels, stores, etc.)
  - Domestic (individual, noncommercial water system)
  - Irrigation (crop)
  - Military
  - Other (explain):

- METHOD OF FLOW MEASUREMENT:
  - Flowmeter
  - Open-pipe
  - Weir
  - Orifice
  - Other (explain):

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

- Conservation District Use Permit (CDUP): To find out if a CDUP is necessary, call DLNR Land Division at 587-0144
- Environmental Assessment (EA) To determine if an EA is necessary, call OEGC at 586-4165

- Special Management Area Permit (SMAP): To determine if an SMAP is necessary, call Maui County, 270-7235; for Oahu, 961-8288; for Kauai, 241-6677.

9. REMARKS, EXPLANATIONS:
- Well for Ag lots

For official use only
Lat: ____________________
Long: ____________________

WCPA Form 82161
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Hole Diameter: 12 in.
Elevation at top of casing: 121 ft., mas
Minimum of 2' radius & 4" thick concrete pad (to contain benchmark surveyed to nearest 0.01 ft.),
Ground Elevation: 120 ft., mas

- Solid Casing: (≥ 90%) (Ground Elev - Water Level Elev)
  Total Length: 125 ft.
  Nominal Diameter: 6 in.
  Wall Thickness: 0.38 in.
  Bottom Elevation: -5 ft., mas

- Open Casing: (check one):
  Total Length: 10 ft.
  Nominal Diameter: 6 in.
  Wall Thickness: 0.38 in.
  Bottom Elevation: -15 ft., mas

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 F490 and ASTM D1527: (check one) □ Schedule 40 □ Schedule 80
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For non-salt water Basal Wells - bottom elevation of well should not be deeper than 14 of aquifer thickness or,
Bottom Elevation of Well Limit = (Water Elevation - 0.5 x Water Level Elevation)
Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = (4 - 0.5 x 2) = -18.5 ft.

Solid Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
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To The Commission:

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<th>Land Owners (7):</th>
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<td></td>
</tr>
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<td>4. Sugar Way Ltd</td>
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<td>By L. J. R. Judge</td>
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<td>5. James J.C. Haynes</td>
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<tr>
<td>William L. Haynes</td>
<td>James J.C. Haynes</td>
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<td>7. Well Owner (print)</td>
<td>Land Owner (print)</td>
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Location Map of Ukumehame on Maui
Alluvial deposits of the Ukumehame Stream

Hypothetical cross section of valley
USGS Map of Proposed Well Sites
Proposed Exploration Well #1 based on findings from Well #1.