**SECTION 1: WELL LOCATION INFORMATION**

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| Date of Review | 3/5/2004 |
| Reviewer      | RRI      |

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

| Elevation at top of casing | 1791 ft., m.s.l. |
| Ground Elevation           | 1790 ft., m.s.l. |
| Cement Grout               | 500 ft.         |
| Rock Packing               | 160 ft.         |
| Hole Diameter              | 30 in.          |
| Total Depth                | 1930 ft.        |
| Estimated Head             | 11 ft., m.s.l.  |
| Calculated Aquifer Thickness | 451 ft.     |
| County Water Supply (Y/N ?) | YES            |

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

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<tr>
<td>1/4 Aquifer Thickness</td>
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<tr>
<td>Depth of Well below Sea Level</td>
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<td>County or Non-County</td>
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<td>Wall Thickness Provided</td>
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<tr>
<td>Minimum Length of Solid Casing</td>
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<tr>
<td>90% of ground to top of aquifer</td>
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<td>Length of solid casing Provided</td>
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<td><strong>Length of solid casing Provided</strong></td>
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<tr>
<td>Casing Material</td>
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<tr>
<td><strong>Casing Material</strong></td>
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<tr>
<td><strong>Annular Space</strong></td>
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<table>
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<tr>
<td>Calculated Depth of Grouting</td>
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<td>Depth of Grouting provided</td>
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<th>Property Address</th>
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<th>Baths</th>
<th>Land area</th>
<th>Living area</th>
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<tr>
<td>2-2-4-12-6 Olinda</td>
<td>F PIHOLO RD</td>
<td>MAUI LAND &amp; PINEAPPLE CO /ETAL</td>
<td>4 1 223.50 ac 1128</td>
<td></td>
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</table>

This information has been supplied by third parties and has not been independently verified by Hawaii Information Service and is, therefore, not guaranteed.
August 6, 2009

Mr. Jeffrey Pearson
Maui Land & Pineapple Co.
P.O. Box 187
Kahului, HI 96733

Dear Mr. Pearson:

Extension and Modification of Pump Installation Permit
Piiholo-ML&P Well (Well No. 5118-03)

Thank you for your emailed discussion of issues concerning the negotiations with Maui Department of Water Supply over the use of the captioned well, and your request dated August 4, 2009 to downsize the pump request while extending the duration of the permit for another two years. By this letter, your request is approved.

Please also find enclosed the reissued pump installation permit for a 870-gpm pump. All other conditions of your permit remain the same. Please file this letter with your other well documents.

If you have any questions, please contact Charley Ice of the Commission staff at 587-0218 or toll free at 984-2400 (Maui), extension 70218.

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director

cc: Water Resources International, Inc.
PUMP INSTALLATION PERM
Piiholo-ML&P Well, Well No. 5118-03

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 Piiholo-ML&P Well (Well No. 5118-03) at TMK 2-4-12:6, Maui, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) 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. No withdrawal of water shall be made other than for testing until a Certificate of Pump Installation Completion has been issued by the Commission.

3. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.

4. The pump installation permit shall be for installation of a 870 gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.

5. A water-level measurement access shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels.

6. The permittee shall install an approved meter or other appropriate means for measuring and reporting withdrawals and appropriate devices or means for measuring chlorides and temperature at the well head.

7. Well Completion Report Part II shall be submitted to the Chairperson within 60 days after completion of work. This form can be obtained by contacting staff or on the internet at www.hawaii.gov/dlnr/cwrm.

8. 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.

9. 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 HWCPIS. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

10. 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 the date the permit expires.

11. 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.

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

Date of Approval: August 4, 2009
Expiration Date: August 4, 2011

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 understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5,000 per day starting from the permit date of approval.

Installer's Signature: __________________________ C-57, C-57a, or A License #: 17737 Date: ________________

Printed Name: Blaise Clay Firm or Title: Water Resources International, Inc.

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

Attachments
Charlie,

After including Tom Nance in the discussion on extending the permit, he suggested lowering the pumping rate to 870 gpm, and asking for the extension to the Piiholo well pump installation permit.

Can I ask for another two years? That would be my preference. Do you need another letter to reduce the requested pumping rate?

Mahalo,

JP

Jeffrey T. Pearson, P.E.
Water Manager
Maui Land & Pineapple Co.
P.O. Box 187, Kane Street
Kahului, Hawaii 96733
Ph: 808 877-1606
Cell: 808 357-4509

From: Charley.F.Ice@hawaii.gov [mailto:Charley.F.Ice@hawaii.gov]
Sent: Friday, July 31, 2009 11:58 AM
To: Pearson, Jeff
Subject: RE: Piiholo

Yes on both counts. No rush: you could go to the CWRM and request going deeper, but that's a gamble, and I'll let Tom advise you on that. We can easily reissue a PIP for the right size, and change the timeline in one swoop, based on your call, schedule, etc. No rush. We're on the record with conversations concerning the soundest course of action,

Charlie,

The pump size listed in the permit is 1400 gpm or smaller. Because Tom Nance recommended 870 gpm, should it be revised to 870 gpm? We have NOT made a decision, but it may be difficult to get a larger pump installed, beyond Nance's recommendations, correct?
Eng: Well failed to sustain 1.2 mgd

WAILUKU - Testing of Maui Land & Pineapple's Piiholo Well produced a yield of 1.2 million gallons of water per day, but failed to show the well could sustain pumping at that rate, said county Water Director Jeff Eng.

The county is at odds with ML&P over a 2006 agreement that called for Maui Pine to develop the well, then turn it over to the county, which would receive a portion of the water it produced. Eng has said the well is not producing enough water for the deal to go forward, while ML&P officials disagree.

Eng said Wednesday that ML&P had tested the well by pumping 1.2 million gallons per day (mgd) for several days, but the well failed to "stabilize" at that rate.

That means the water level in the well continued to drop throughout the test, and never hit a point at which it leveled off and did not go any lower.

The county used the results of that test to make its own estimates for what the well's actual yield would be, and the county's estimates are much lower than 1.2 mgd, Eng said.

"I would have approved it at 1.2 million," he said.

ML&P officials have said they disagree with the county on yield estimates.

The 2006 agreement between Maui Pine and the county projected the Piiholo Well could produce 1.5 mgd to 2 mgd. It also specified that tests on a pilot hole would have to show a capacity of at least 1 mgd in order for the drilling of the well to proceed.

Eng said Maui Pine could do more testing on the well or seek approval from the state to dig it deeper in the hopes of increasing its productivity, although either of those steps would mean more costs for the already cash-strapped company.

ML&P has not installed a permanent pump that would make the well operational and it allowed a pump installation permit to lapse in June without seeking an extension, according to the state Commission on Water Resource Management.

According to reports filed with the Securities and Exchange Commission, ML&P agreed to develop the well in connection with a 2005 sale of land Upcountry. Under the deal, the buyer would withhold $1.9 million from the purchase price until Maui Pine delivered the promised water.

ML&P reported spending $2.5 million on drilling the well in 2008.

The company ended last year with a loss of more than $70 million.

* Ilima Loomis can be reached at iloomis@mauinews.com.
‘Disappointing’ yield creating waves

WAILUKU - A less-than-hoped yield for a well drilled by Maui Land & Pineapple Co. at Piiholo has put the company and Maui County water officials at odds over a deal to use the water.

The agreement called for ML&P to develop the well and then turn it over for operation to the county, which would receive a portion of the water it produced. But county water officials say the well is not producing enough water for the agreement to go forward, while Maui Pine disagrees.

Pump tests done last year showed a maximum yield of 1.2 million gallons of water per day from the well, according to data reported to the state Commission on Water Resource Management. That’s 800,000 gallons short of the 2 million gallons per day ML&P set as its target when it applied for its well construction permit in 2004.

County Water Director Jeff Eng called the results “disappointing,” and said the well’s yield would not be enough to meet all the commitments made in Maui Land & Pineapple’s 2006 agreement with the county.

ML&P could look at options for improving the yield, but the county would not accept the well under the current circumstances, he said.

"If there are no further discussions or any more effort to complete the well or determine its output, I would think we would terminate the agreement," Eng said.

But Maui Land & Pineapple Senior Vice President Ryan Churchill said the company had a different view.

"We are in disagreement with the county on the yield," he said.

He said ML&P had completed development of the well and was working with the county to complete the terms of the agreement.

The 2006 agreement between the county and ML&P specifies that tests on a pilot hole would have to show a capacity of at least 1 million gallons per day in order for the drilling of the well to proceed. But it doesn’t appear to set a minimum number of gallons per day that the completed well would have to produce in order for the deal to go forward.

Eng and Churchill would not comment on the specific points of disagreement between the company and the county.

Maui Pine filed a well-completion report with the Commission on Water Resource Management in December 2008, indicating drilling was complete. But Charley Ice, a commission hydrologist, said the
company has not yet installed a permanent pump to make the well operational, and allowed a pump installation permit to expire in June without seeking an extension.

Last year, the company received approval from commission staff to drill the well deeper into the aquifer than is usually allowed, in hopes of improving the yield, Ice said.

“They went as deep as they could, without getting the results they wanted,” he said.

Maui County and Maui Land & Pineapple signed the Piiholo Well agreement in late 2006, a few weeks before then-Mayor Alan Arakawa left office.

The contract was already in place when Eng became water director in 2007, and he has said previously that he felt the county could have gotten a better deal out of the arrangement, and that in future deals with private well developers, he’d like to see the county get a larger share of the water.

Under the agreement, ML&P was to develop the well, then turn it over to the county, which would own and operate it.

County standards call for wells to be pumped at 45 percent of their maximum capacity. According to the agreement, ML&P would receive 75 percent of that amount, while the county would receive 25 percent.

The agreement allowed for Maui Pine to take up to 120,000 gallons per day of its water allocation, not from the system that would be fed by the new Piiholo Well, but from the county’s Upper Kula water system.

If the well had produced a maximum capacity of 2 million gallons per day as the company originally hoped, that would have provided ML&P with 675,000 gallons per day, and the county with 225,000 gallons per day.

Maui Pine was expected to use its allocation for its own projects and had promised to provide water for the proposed 170-home Kaauhale Lani subdivision in Pukalani when it sold the land to developer Pukalani Associates in 2005.

The county had planned to use its share to provide water to some of the hundreds of landowners on a waiting list for water meters Upcountry.

But with the well’s maximum capacity at only 1.2 million gallons per day, ML&P’s allocation would be 427,680 gallons per day, and the county would get just 142,560 gallons per day.

Ice said he believed Maui Pine was able to get a slight improvement in yield by drilling about 50 feet deeper to bring the well to a total depth of 1,960 feet, but the improvement was not enough to meet the company’s original expectations.

ML&P could apply for another variance to drill the well even deeper, but that could be risky, because if it did not produce the desired results, the company could be required to backfill the deepest portion.

Drilling a well isn’t like poking a straw into a juice box, Ice said, because the layer of volcanic rock hundreds of feet below the island’s surface doesn’t have a homogenous consistency, but can be dense in some places and porous in others. Some wells Upcountry have turned out to be very productive, while others have been disappointing, he said.

“It’s a hit-and-miss situation,” Ice said.

* Ilima Loomis can be reached at iloomis@mauinews.com.

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The Maui News

100 Mahalani Street, Wailuku, Maui, Hawaii 96793
808-244-3981 (local)

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http://www.mauinews.com/page/content.detail/id/521461.html?nav=10
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<td>KUNIMURA, I.</td>
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<td>YOSHINAGA, M.</td>
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Given the controversy, should we extend or ask that they explain if they will be amending their permitted amount to something less than their 1400 gpm pump?

emailed 31 July - Pearson's call
July 27, 2009

Mr. Ken C. Kawahawa, P.E., Deputy Director
State of Hawaii
Department of Land and Natural Resources
Commission on Water Resource Management
P.O. Box 621
Honolulu, Hawaii 96809
Attention: Mr. Charlie Ice

Dear Mr. Kawahawa:

Piiholo-ML&P Well (Well No. 5118-03)
Pump Installation Permit; Request for Two-year Extension
Ref: 5118-03.pip

It has come to our attention that the Pump Installation Permit for the Piiholo well has expired on June 19, 2009. On behalf of Water Resources International, Inc., Maui Land & Pineapple Company (ML&P) is respectfully requesting a two-year extension of the Pump Installation Permit for well 5118-03.

ML&P had intended to dedicate this well to the County. There have been many delays in negotiating with the County, and it appears the County may not accept dedication. We still expect to operate the well, likely as a private source, and therefore request an extension of the permit.

Maui Land & Pineapple Company thanks the CWRM for their assistance. Should you have any questions or need additional information, please feel free to contact Jeffrey T. Pearson at 808-877-1606.

Sincerely,

Jeffrey T. Pearson, P.E.
Water Manager

Cc: Mr. Blaise Clay, Water Resources International, Inc.
December 24, 2008

Mr. Jeffrey T. Pearson, P.E.
Maui Land & Pineapple Company, Ltd.
P.O. Box 187
Kahului, HI 96733-6687

Dear Mr. Pearson, P.E.:

Certificate of Well Construction Completion for Well No. 5118-03 (TMK 2-4-012:006)

We are pleased to inform you that the Well Construction work permitted for the Piiholo-ML&P Well (Well No. 5118-03) is complete and acceptable.

To protect Hawaii’s natural ground water resources for the benefit of all, the following requirements apply to the use of your well:

1. Before this well can be pumped on a regular basis, a certificate of pump installation completion must be obtained.

2. If the well is not in use it must be properly capped.

3. If the well is to be abandoned then the landowner must cause a licensed contractor to apply for a well abandonment permit in accordance with §13-168-12(f) prior to any well sealing or plugging work.

4. In the event that the well operator and/or landowner changes, the Commission shall be notified prior to the change.

5. In the event the benchmark in the concrete base of the well is altered in any way, an updated version of the Well Elevation page of the Well Completion Report Part I shall be submitted to the Commission. If a licensed surveyor had estimated the original benchmark elevation then a licensed surveyor must establish the new benchmark elevation. The Well Elevation portion of the Well Completion Report Part I can be obtained by contacting Commission staff or at www.hawaii.gov/dlnr/cwrmlforms.htm.

Because groundwater in Hawaii is a public trust, and adverse effects at one well may affect other water resources, any violation of the above conditions, or any other provision of the Hawaii Administrative Rules, may be subject to fines of up to $5,000/day. The Commission needs your help and asks that you to do your part in utilizing this shared resource. We prefer to work with you in meeting the goal of protecting our ground water resources together.

If you have any questions, please contact Charley Ice of the Commission staff at 587-0218 or toll-free at 984-2400 (Maui), extension 70218.

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director

c: Maui Department of Water Supply
Water Resources International, Inc.
December 29, 2008

Mr. Blaise Clay
Water Resources International, Inc.
P.O. Box 44520
Kawaihae, HI 96778

Dear Mr. Clay:

Well Completion Report Part I for Well No. 5118-03

We received your Well Completion Report Part I for the Piiholo-ML&P (Well No. 5118-03) on December 4, 2008 and acknowledge that it is complete.

This completes your obligation under the well construction permit. A certificate of well construction completion will be issued to the well operator/landowner and you will receive a copy. This certificate transfers responsibility of specific aspects of well usage and maintenance from you to the well operator/landowner.

If you have any questions, please contact Charley Ice of the Commission staff at 587-0218 or toll-free at 974-4000 (Hawaii), extension 70218.

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director

Cl: ss

c: Maui Land and Pineapple
Tom Nance Water Resource Engineering
Maui Department of Water Supply
Well Check Program
4/1/04 - Revised for update to Well Standards (February 2004)

### Data Input

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### Results

#### Well Depth

| Theoretical Thickness of Aquifer | 468.63 |
| 1/4 Aquifer Thickness            | 117.1575 |
| Depth of Well below Sea Level    | -161 too deep |

#### Well Casing

| Minimum Wall Thickness Material | steel |
| Minimum Thickness per standards | 0.375 |
| Wall Thickness Provided         | 0.375 okay |
| Minimum Length of Solid Casing  | 1608.813 |
| 90% of ground to top of aquifer | 1835 okay |
| Length of solid casing Provided | ASTM A139 in compliance |
| (for pvc only - check for 200’ limit) | okay |

#### Annular Space

| Depth of Grouting Calculated Depth of Grouting | 8.001 |
| Depth of Grouting provided                   | 1000 okay |
| Minimum Annular Space required               | 1.5 |
| Thickness of Annular Space                   | 3.125 okay |

---

**Section 2.2**
- approved $^{7/27/08}$
- too deep

**Section 2.4**
- (b)
- (c)
- (d)

**Section 2.6**
- (c)
- (d)
<table>
<thead>
<tr>
<th>Material</th>
<th>Standards</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC plastic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABS plastic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermoset plastic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel</td>
<td>ANSI/AWWA C200</td>
<td></td>
</tr>
<tr>
<td>API Spec. 5L</td>
<td></td>
<td></td>
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<tr>
<td>ASTM A53</td>
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<tr>
<td>ASTM A139</td>
<td></td>
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<td>ASTM A606</td>
<td></td>
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<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive displacement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel public</td>
<td></td>
<td>0.375</td>
</tr>
<tr>
<td>Steel non public</td>
<td></td>
<td>0.4375</td>
</tr>
<tr>
<td>Stainless steel</td>
<td>ASTM A409</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PVC plastic</td>
<td>Schedule 40</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Schedule 80</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MEMO and ROUTE SLIP (ver. 09/09/08)

WCR 1 Check for Well No. 5118-03 (regulation/survey route)

1. From Charley/Denise/Ryan (initial)

2. **Pump Tests Check** Diane England (initial)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step-Drawdown Test: followed WCPI Stds analysis attached</td>
<td>☐</td>
</tr>
<tr>
<td>Constant Rate Test: followed WCPI Stds analysis attached</td>
<td>☐</td>
</tr>
<tr>
<td>Potential Well Interference:</td>
<td>☑</td>
</tr>
<tr>
<td>Potential Stream Impacts:</td>
<td>☑</td>
</tr>
<tr>
<td>Additional Testing or Data Required:</td>
<td>☑</td>
</tr>
<tr>
<td>Pump Test Comments Attached:</td>
<td>☑</td>
</tr>
<tr>
<td>Proposed Pump Capacity is OK.: Yes e = 880 gpm</td>
<td></td>
</tr>
</tbody>
</table>

3. **Well Log Check** Geology Code for Well Index: TK Fm Name: Kula Volus. D. England DE (initial)

4. **Construction Check** Mitch Ohye (initial) R. Torres (initial)

   - data complete
   - followed Special Cond & elevations
   - well database updated

   If no. describe deficiency

   Excel's requires P&H
   request rec'd 4/3/08
   approved by HR 4/22/08

   Latitude
   NAD27 20 51 23
   NAD83

5. Charley/Denise/Ryan (initial) take action based on above analysis

   ATTACHMENTS FOR PUMP INSTALLATION PERMIT (2x):
   1. COVER LETTER
   2. COUNTY COMMENTS (DWS/SMA)
   3. DOH COMMENTS
   4. DLNR COMMENTS (LD/OCC/LDHP)
   5. WCR 1 Accept
   6. WELL CONST. COMPLETION CERTIFICATE
   7. USGS MAP UPDATED
   8. PARCEL CHECK
   9. WELL DATABASE INPUT CHECK
   10. PUMP TEST WORKSHEET
   11. WELL As-Built CHECK PRINT

6. Roy (initial) check (Entered WCR 1/WCCC accept date into database)
7. Susan Hoagbin (initial) finalize
8. Ken (initial) signature
9. Mitch (initial) Entered PIP issue date if attached/required
10. Charley/Denise/Ryan File
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
WELL COMPLETION REPORT - PART I
Well Construction

Instructions: Please print in ink or type and send completed report (with attachments, if applicable) to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96806. The Commission may not accept incomplete reports. This form shall be submitted within 60 days of the completion of work. For assistance, please consult the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at 808-681-2225. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlnr/cwrm/

1. State Well No.: 5118-03
   Well Name: Piilolo-ML&P Wells
   Island: Maui
2. Address: Piiholo, Makawao, Maui, Hawaii
   Tax Map Key: (2) 2-4-12; 6
4. Drilling method used during construction: ❌ Rotary  □ Percussion  ❌ Other (describe)
5. Date Well Construction (drilled,cased,grouted) completed: 7/19/08
   Attach Completed Driller's Log
6. Was the subject well cored? ❌ Yes  □ No
7. Step-Drawdown Test completed? ❌ No  □ Yes
   Attach Step-Drawdown Test form (12/17/97 SDPTD Form)
8. Constant Rate Aquifer Test completed? ❌ No  □ Yes
   Attach Constant Rate Aquifer Test form (12/17/97 CRPTD Form)

<table>
<thead>
<tr>
<th>Water Level Data:</th>
<th>Reference point elevation</th>
<th>Depth to water (feet)</th>
<th>Water Level ft. above mean sea level (see note below)</th>
<th>Date/time of measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Initial encountered during drilling (this should also be filled in on the driller's log)</td>
<td>Ground: 1799.63 ft. msl</td>
<td>1788.20</td>
<td>11.43</td>
<td>4/8/08-10:00 am</td>
</tr>
<tr>
<td>10. Just prior to casing installation</td>
<td>Ground: 1799.63 ft. msl</td>
<td>1788.20</td>
<td>11.43</td>
<td>6/28/08-8:30 am</td>
</tr>
<tr>
<td>11. After casing installation (this information should be before any pump tests are performed with casing installed)</td>
<td>If this reference point is not the benchmark, the difference between the benchmark and this point is:</td>
<td>1788.20</td>
<td>11.43</td>
<td>8/4/08-9:30 am</td>
</tr>
</tbody>
</table>

Chloride: 0 ppm, Temperature: 68.8 °F

Note: For all elevations referenced to mean sea level, take the ground elevation (surveyed or estimated if survey not required at this time) and subtract the depth to the water level.

12. As-built section filled in completely ❌
13. Photograph of well and concrete pad showing benchmark on concrete pad attached ❌
14. GPS coordinates provided in degrees, minutes, seconds ❌
15. If a pump is not planned to be installed, please describe (below in the remarks section) how well is secured to prevent unauthorized access (example: lockable cover, threaded coupling, etc.)
16. Remarks: Secured with Lockable Threaded Coupling

Licensed Driller (print) Blaise Clay
C-57 Lic. No. 17737
Signature
Date November 26, 2008
12. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Elevation at top of casing 1801.60 ft
(to nearest 0.01 ft.)

Hole Diameter: 27 in.

Minimum of 2' Radius & 4" Thick Concrete Pad

Ground Elevation 1799.63 ft., msl

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

Solid Casing: (≥ 90% x (Ground Elev.-Water Level Elev))
Length: 1835 ft.
Nominal Diameter: 20.75 in.
Wall Thickness: .375 in.
Bottom Elevation: -35.37 ft., msl

Open Casing: X Perforated □ Screen
Length: 25 ft.
Nominal Diameter: 20.625 in.
Wall Thickness: .3125 in.
Bottom Elevation: -60.37 ft., msl

Open Hole:
Length: 100 ft.
Diameter: 18 in.
Bottom Elevation: -160.37 ft., msl

Positive displacement (if annular space is less than 0.01 in., attach photo of tremie)

Other

Cement Grout 1000 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 (1.5" for positive displacement, 3" for other methods):
3.125 in.

Rock or Gravel Packing:
 Crushed Basalt
 Rounded Gravel

Water Level Elevation: 11.43 ft., msl*
(item 11 from page 1)

11.43 X 3.125 = (14)

Total Depth 1960 ft.

Minimum of 2’ Radius & 4” Thick Concrete Pad

As-built:

WCR1 Form 6/12/07 Page 2 of 5
<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock description, Water level, etc.</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 11</td>
<td>Brown Dirt</td>
<td>1-7-07</td>
</tr>
<tr>
<td>11 to 24</td>
<td>Brown Dirt</td>
<td>1-14-07</td>
</tr>
<tr>
<td>24 to 120</td>
<td>Hao/med.</td>
<td>1-21-07</td>
</tr>
<tr>
<td>120 to 133</td>
<td>gray/Clay</td>
<td>1-26-07</td>
</tr>
<tr>
<td>133 to 155</td>
<td>Med Drg</td>
<td>1-28-07</td>
</tr>
<tr>
<td>155 to 170</td>
<td>Hao/med.</td>
<td>1-5-07</td>
</tr>
<tr>
<td>170 to 176</td>
<td>Hao</td>
<td>1-6-07</td>
</tr>
<tr>
<td>176 to 25</td>
<td>Med/Hao</td>
<td>1-7-07</td>
</tr>
<tr>
<td>25 to 28</td>
<td>Hao</td>
<td>1-8-07</td>
</tr>
<tr>
<td>28 to 70</td>
<td>Med</td>
<td>1-9-07</td>
</tr>
<tr>
<td>70 to 170</td>
<td>Hao</td>
<td>1-10-07</td>
</tr>
<tr>
<td>170 to 316</td>
<td>Hao</td>
<td>1-11-07</td>
</tr>
<tr>
<td>316 to 336</td>
<td>Sandar</td>
<td>1-12-07</td>
</tr>
<tr>
<td>336 to 339</td>
<td>Hao Vey</td>
<td>1-13-07</td>
</tr>
<tr>
<td>339 to 342</td>
<td>Clay</td>
<td>1-14-07</td>
</tr>
<tr>
<td>342 to 362</td>
<td>Med/Hao</td>
<td>1-15-07</td>
</tr>
<tr>
<td>362 to 382</td>
<td>Hao</td>
<td>1-16-07</td>
</tr>
<tr>
<td>382 to 399</td>
<td>Hao</td>
<td>1-17-07</td>
</tr>
<tr>
<td>399 to 400</td>
<td>V. Hao</td>
<td>1-18-07</td>
</tr>
</tbody>
</table>

**Remarks:**

For Official Use Only:

DL Form 06/24/2004
<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock description, Water level, etc.</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>122</td>
<td></td>
<td></td>
</tr>
<tr>
<td>737</td>
<td>Med. Haue</td>
<td>1-29</td>
</tr>
<tr>
<td>764</td>
<td>Med. Haue</td>
<td>1-30</td>
</tr>
<tr>
<td>791</td>
<td>Med. Haue</td>
<td>1-31</td>
</tr>
<tr>
<td>816</td>
<td>V. Haue</td>
<td>2-1</td>
</tr>
<tr>
<td>818</td>
<td>Soft. Dvy</td>
<td>2-2</td>
</tr>
<tr>
<td>824</td>
<td>Med. Soft</td>
<td>2-5</td>
</tr>
<tr>
<td>894</td>
<td>Med. Soft</td>
<td>2-6</td>
</tr>
<tr>
<td>925</td>
<td>Soft. Dvy</td>
<td>2-7</td>
</tr>
<tr>
<td>972</td>
<td>V. Soft.</td>
<td>2-8</td>
</tr>
<tr>
<td>1050</td>
<td>Soft (Dur.)</td>
<td>2-10</td>
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<tr>
<td>112</td>
<td>Soft (Gray)</td>
<td>2-12</td>
</tr>
<tr>
<td>1172</td>
<td>Med.</td>
<td>2-13</td>
</tr>
<tr>
<td>1202</td>
<td>Med. Soft</td>
<td>2-14</td>
</tr>
<tr>
<td>1240</td>
<td>Med. Soft</td>
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<td>1278</td>
<td>Med. Soft (Gray)</td>
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<td>Med. (Gray)</td>
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<tr>
<td>1368</td>
<td>Med. (Gray)</td>
<td>2-21</td>
</tr>
</tbody>
</table>

Remarks:
## DRILLER'S LOG

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

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description</th>
<th>Water Level</th>
<th>CI</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920 to 1935</td>
<td>hard</td>
<td>4-5-08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1935 to 1945</td>
<td>med-hard</td>
<td>4-6-08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1945 to 1955</td>
<td>hard</td>
<td>4-6-08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1951 to 1955</td>
<td>med</td>
<td>4-7-08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1955 to 1966</td>
<td>med-soft</td>
<td>4-7-08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1966 to 1970</td>
<td>med</td>
<td>4-7-09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970 to 1975</td>
<td>med-soft</td>
<td>4-7-09</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

WCR1 Form 6/12/07 Page 3 of 5
Attach photos of completed well and concrete pad

NAD83:
Latitude: ___ degrees ___ min ___ sec
Longitude: ___ degrees ___ min ___ sec

SKETCH OF WELL LOCATION
(Referenced to permanent landmark, i.e. building, road, fence, etc.)
Provide Latitude and Longitude of well referenced to NAD83 to nearest second
Well Elevation

Benchmark Elevation 1,799.96

Attach photos of completed well and concrete pad showing benchmark location.

I certify that the elevation shown above:

1) Was done in accordance with acceptable surveying practices
2) Is accurate to the nearest 0.01 ft.
3) Is referenced to mean sea level

[Signature]

Surveyor

License No.

November 14, 2008

Date
TO: Commission on Water Resource Management  
P.O. Box 621  
Honolulu, HI 96809  

ATTN: Laura H. Thielen, Chairperson

GENTLEMEN:

WE ARE SENDING YOU ☑ Attached ☐ Under separate cover via ______________ the following items:

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications  
☐ Copy of letter ☐ Change order ☐

<table>
<thead>
<tr>
<th>COPIES</th>
<th>DATE</th>
<th>NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11/26/08</td>
<td>17</td>
<td>Well Completion Report Part 1 - Original</td>
</tr>
</tbody>
</table>

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit __________ copies for approval  
☒ For your use ☐ Approved as noted ☐ Submit __________ copies for distribution  
☐ As requested ☐ Returned for corrections ☐ Return __________ corrected prints  
☐ For review and comment ☐ ☐ FOR BIDS DUE ____________________________ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS

COPY TO Tom Nance Water Resource Engineering
Maui Land & Pineapple  
WRI Honolulu  
WRI Job File

SIGNED

Laura Carbine  
Executive Assistant
Pump Test Analysis – Comments

Well ID: 5118-03
Analysis Date: 12/10/08
Geologist: Diane England

Test Date: 9/2/08

Step Drawdown Test

Deviations From Pump Test Requirements
1. No deviations from the “Pump Test Requirements” guidance

Other Comments
2. Strong well response to start of pumping. Sharp, instantaneous drawdown (max = 27.5 ft) with subsequent recovery over the initial 45-minute step period.

Constant Rate Pumping Test

Deviations From Pump Test Requirements
1. No deviations from the “Aquifer Pump Test Procedures” guidance.

Other Comments
2. Test run for 168hr and drawdown not stabilized. However, 168hr test is more than twice the minimum required test length for 900 gpm (72hr) and the drawdown increase over the last 101hr of the test was only 0.7 ft.
3. 99% water level recovery within eight minutes.

Drawdown Curve Comments
4. Estimated K=170 ft/d. Estimated T = 29,000 ft²/d.

Well Interference & Stream Impacts

| Drawdown Prediction (ft) - One Mile Radius (Confined Conditions - Worst Case Prediction) |
|---------------------------------|-------------|-------------|
| Storage Coefficient =           | 0.001       | 0.1         |
| 50yr                            | 4.96        | 2.82        |
| 100yr                           | 5.29        | 3.14        |
| 500yr                           | 6.04        | 3.89        |

1. No evidenced of confined conditions. Based on preliminary analysis, no adverse stream or well impacts are expected.

Other Comments
1. None

Proposed Pump Capacity OK? : YES 880 gpm or less.

* proposed rate on application = 1400 gpm
**WELL ID: 5118-03**

**Island:** Maui  
**Test Date:** 9/2/2008  
**Analysis Date:** 12/10/2008

### INPUT

<table>
<thead>
<tr>
<th>Construction:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Casing dia. ((d_c))</td>
<td>18 Inch</td>
</tr>
<tr>
<td>Annulus dia. ((d_w))</td>
<td>24 Inch</td>
</tr>
<tr>
<td>Screen Length ((L))</td>
<td>125 Feet</td>
</tr>
</tbody>
</table>

** Depths to:**
- Water level (DTW) 1788.2 Feet  
- Top of Aquifer 1788.2 Feet  
- Base of Aquifer 1960 Feet

**Annular Fill:**
- Across screen -- Open Hole  
- Above screen -- Cement  
- Aquifer Material -- Permeable Basalt

**FLOW RATE** 879 GPM

---

### COMPUTED

- **Aquifer thickness** = 170 Feet
- **Slope** = 1.07032967 Feet/log10

Input is consistent.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(K)</strong></td>
<td>170 Feet/Day</td>
</tr>
<tr>
<td><strong>(T)</strong></td>
<td>29000 Feet²/Day</td>
</tr>
</tbody>
</table>

\(K = 170\) is greater than likely maximum of 100 for Permeable Basalt

---

![Graph](link)

**REMARKS:**  
Cooper-Jacob analysis of single-well aquifer test

Analysis Program: USGS Aquifer Test Analysis Spreadsheets v.1.2, Open File Report 02-197
<table>
<thead>
<tr>
<th>Entry</th>
<th>Date Hr:Min:Sec</th>
<th>Water Level</th>
<th>Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1/00 0:00:00</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>1/00 0:01:00</td>
<td></td>
<td>7.70</td>
</tr>
<tr>
<td>3</td>
<td>1/00 0:02:00</td>
<td></td>
<td>15.80</td>
</tr>
<tr>
<td>4</td>
<td>1/00 0:03:00</td>
<td></td>
<td>18.30</td>
</tr>
<tr>
<td>5</td>
<td>1/00 0:04:00</td>
<td></td>
<td>18.50</td>
</tr>
<tr>
<td>6</td>
<td>1/00 0:05:00</td>
<td></td>
<td>19.70</td>
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<tr>
<td>7</td>
<td>1/00 0:06:00</td>
<td></td>
<td>19.20</td>
</tr>
<tr>
<td>8</td>
<td>1/00 0:07:00</td>
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<td>18.70</td>
</tr>
<tr>
<td>9</td>
<td>1/00 0:08:00</td>
<td></td>
<td>16.90</td>
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<td>1/00 0:10:00</td>
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<td>1/00 0:15:00</td>
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<td>1/00 0:25:00</td>
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<td>1/00 1:00:00</td>
<td></td>
<td>16.90</td>
</tr>
<tr>
<td>18</td>
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Constant Rate Pump Test
Well 5118-03 (9/2/08)

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**Step Change**
**STEP-DRAWDOWN PUMP TEST DATA**

(not required for wells producing < 100,000 gpd or 70 gpm)

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**START TEST**

Date: 9/2/08  Time of day: 10:46 AM

Flow Meter Reading Start: 689,300 gallons

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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: 690,367,000 gals

1. starting pumping rate \( Q \)
2. minimum length of step period of constant pumping rate
3. minimum mandatory Chloride (Cl) measurement/sampling at end of every step
4. Use same ending drawdown figure as start for recovery
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END TEST Date: 9/2/06  Time of day: 2:00 PM

ADDITIONAL REMARKS: 

Person in charge of pump test (print): Tracey Underwood

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.
**CONSTANT-RATE PUMP TEST DATA**  
(not required for wells producing < 50 gpm)

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Pumped Well Name: Piholo

Target Q: 875 gpm

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Reference pt. for depth to water: 1799.63 ft. msl

Water level measurements by:  
- electrical sounder  
- pressure transducer  
- airline

START TEST  
Date: 9/2/08  
Time of day: 3:00

Flow Meter Reading Start: 69036000 gallons

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1 Chloride sampling required
2 Use same ending drawdown figure as start for recovery

Max possible duration, water level or quality did not stabilize for any 24 period

Begin recovery data next page
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### CRPTD Form 10/25/2004

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- Observation Well
- Remarks

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END TEST Date: 9/9/08 Time of day: 6:00 PM

ADDITIONAL REMARKS: _______________________________________

Person in charge of pump test (print): Tracy Underwood

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.
ML&P deal opens spigot for Kula lands

But agreement seen as threat to agriculture, unfair to family projects

By ILIMA LOOMIS, Staff Writer

WAILUKU — A well that is being drilled in Piiholo by Maui Land & Pineapple Co. in a controversial deal with the county is expected to be online with a total capacity of 1.5 million gallons per day by the end of 2010.

The county is expected to get 168,750 gallons or more out of the agreement signed by former Mayor Alan Arakawa in 2006. That's more than the county's gotten out of similar agreements in the past. But some are questioning why the agreement allows ML&P to draw some of its water allocation from the county's Upper Kula system, bypassing Kula landowners who've been waiting for years on the Upcountry water meter waiting list.

"That is not fair," said Doug MacCluer, a retired vice president of Maui Pineapple Co., who now serves on the county's General Plan Advisory Committee and the Central Maui Soil and Water Conservation District. "There are a lot of people on that list — family subdivisions — for years and years. To jump ahead is just not fair."

ML&P officials contended that the well is a good deal for the county, and note that the water the county gets will actually enable it to start issuing meters to more Upcountry residents.

"Those who stand to benefit the most from this are the first couple hundred people on the Upcountry water meter list," said Senior Vice President Ryan Churchill.

Churchill said the well was expected to cost ML&P $4 million to $5 million to develop.

"We're paying for it, we're taking the risk, and if we're successful it gets turned over to the county for a very limited cost," he said.

Under the agreement, the well would be built by ML&P; if pump tests are satisfactory, upon completion it would be turned over to the county, which would own and operate it.

County standards call for wells to be pumped at 45 percent of maximum capacity. Under the agreement, ML&P would receive 75 percent of that amount, or 506,250 gallons per day, while the county would get 25 percent, or 168,750 gallons.

Of ML&P's allocation, as much as 120,000 gallons could be taken from the county's Upper Kula water system and used to serve 15 parcels identified by tax-map key number, totaling more than 3,300 acres, according to the agreement. Also in the deal, the county would give ML&P credits against future water development fees and would refund 50 percent of the company's cost of installing a transmission line.

Water Director Jeff Eng, who joined the county in January 2007, noted that the agreement with ML&P was more favorable for the county than similar water-development agreements signed with Maui Lani in 2006 and Dowling Co. in 1996. In both those cases, the developer was granted 100 percent of the net available water, while the county took over and operated the well.

"In terms of how much water the community can get out of it, this is definitely the best deal," Eng said.
The county can also get more water out of the deal by pumping the well above the recommended 45 percent of capacity, Eng added. The county has recently been pumping the Dowling well in Kaupakalua at 55 percent of capacity, and pocketing the surplus, about 164,000 gallons per day, he said.

But Eng agreed the Piiholo well agreement was not ideal for the county. "We will get something, but on paper it doesn't look good at all," he said. "In the future, I want to get a better deal than this."

Arakawa said the agreement was nothing unusual, and had terms beneficial for the county.

"I think the county got better than the standard deal," he said.

He noted that the county could pump the well at maximum capacity if it wants to, which would allow it to take two-thirds of the total.

"Sixty-six percent of water is better than zero percent of nothing," he said.

Deals with private companies to develop their own wells have been tried in recent years "to buy the county some time," while the county seeks new water sources of its own, Eng said. He wanted future agreements to have terms more favorable to the county, with a 50-50 split of net water.

Eng said he was aware of the concern surrounding the agreement’s impact on the Upcountry meter list.

"I hear it every day," he said.

But he noted that the county’s allocation from the deal would allow it to issue meters to people on the waiting list, and that water from Piiholo could be pumped to add water to the Upper Kula system from which ML&P would be drawing for its Kula parcels.

"We can move water around," he said.

Board of Water Supply Member Michael Howden was disturbed by the agreement. Just because the county was "screwed" on previous deals for private water development, he said, that didn’t make this a good one.

He was distressed that people waiting for meters would be "pushed aside."

"It’s just so unfair to the residents, especially people who are on the waiting list," he said.

But Howden was also concerned that neither the water board nor the Maui County Council was notified of the deal before it was signed.

"We should have been informed that something of this magnitude was being negotiated and had been signed," he said.

The council has since passed a law requiring the mayor to get council approval before accepting ownership of a private well.

Arakawa noted that the agreement includes a provision for the council to approve the handover of the well.

"There’s no sneaking anything through," he said.

But MacCluer thought the fact that Arakawa signed the deal after voters had turned down his bid for re-election, and six weeks before leaving office, "just looks shady."

In addition to his concern about the Upcountry meter list, MacCluer was upset that a number of the parcels specified to receive ML&P’s water allocation in upper Kula are prime agricultural lands. The parcels include former pineapple fields located between Pulehu and Omaopio Roads, below Pukalani, and adjacent to the Waiakea Homesteads. Landowners include ML&P, Kula 1800 LLC, Haleakala Ranch, Pulehu Farms, Kula Ridge LLC and Kula Ridge Mauka LLC.

He feared the lands would become "gentleman's estates."

He also noted that, at 1,500-feet elevation, the Piiholo well water would have to be pumped higher than for other wells used by the county. The well will require more electricity.

"I think it’s a bum deal for the public and for agriculture," he said.
<table>
<thead>
<tr>
<th>Depth Interval (ft)</th>
<th>Elevation (ft, msl)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 10</td>
<td>1,810 to 1,880</td>
<td>No sample</td>
</tr>
<tr>
<td>10 to 30</td>
<td>1,800 to 1,780</td>
<td>Red soil with a white clay mineral present.</td>
</tr>
<tr>
<td>30 to 40</td>
<td>1,780 to 1,770</td>
<td>No sample</td>
</tr>
<tr>
<td>40 to 50</td>
<td>1,770 to 1,760</td>
<td>Weathered red/brown sand-size cuttings (saprolite)</td>
</tr>
<tr>
<td>50 to 60</td>
<td>1,760 to 1,750</td>
<td>Weathered brown saprolite</td>
</tr>
<tr>
<td>60 to 80</td>
<td>1,750 to 1,730</td>
<td>Mixture of dense dark gray and red/brown aphyric cuttings.</td>
</tr>
<tr>
<td>80 to 90</td>
<td>1,730 to 1,720</td>
<td>No sample</td>
</tr>
<tr>
<td>90 to 110</td>
<td>1,720 to 1,700</td>
<td>Mixture of weathered brown clay and secondary white silica mineral.</td>
</tr>
<tr>
<td>110 to 120</td>
<td>1,700 to 1,690</td>
<td>No sample</td>
</tr>
<tr>
<td>120 to 130</td>
<td>1,680 to 1,660</td>
<td>Weathered red aphyric cinder and ash.</td>
</tr>
<tr>
<td>130 to 150</td>
<td>1,660 to 1,660</td>
<td>Dense gray rock with olivine phenocrysts &lt; 1 mm across.</td>
</tr>
<tr>
<td>150 to 160</td>
<td>1,660 to 1,650</td>
<td>No sample</td>
</tr>
<tr>
<td>160 to 170</td>
<td>1,650 to 1,640</td>
<td>Dense dark gray sand-size rock with minor olivine phenocrysts &lt; 1 mm across.</td>
</tr>
<tr>
<td>170 to 190</td>
<td>1,640 to 1,620</td>
<td>No sample</td>
</tr>
<tr>
<td>190 to 210</td>
<td>1,620 to 1,600</td>
<td>Dense dark gray aphyric sand-size cuttings</td>
</tr>
<tr>
<td>210 to 240</td>
<td>1,600 to 1,570</td>
<td>No sample</td>
</tr>
<tr>
<td>240 to 250</td>
<td>1,570 to 1,560</td>
<td>Mixture of dark gray sand-size cutting with minor olivine phenocrysts and white silica secondary silica mineral.</td>
</tr>
<tr>
<td>250 to 260</td>
<td>1,560 to 1,550</td>
<td>No sample</td>
</tr>
<tr>
<td>260 to 280</td>
<td>1,550 to 1,520</td>
<td>Dark gray sand-size cuttings with minor olivine phenocrysts &lt; 1 mm across.</td>
</tr>
<tr>
<td>280 to 310</td>
<td>1,520 to 1,500</td>
<td>No sample</td>
</tr>
<tr>
<td>310 to 320</td>
<td>1,500 to 1,490</td>
<td>Brown cinder with plagioclase feldspar phenocrysts &lt; 1 mm across.</td>
</tr>
<tr>
<td>320 to 330</td>
<td>1,490 to 1,480</td>
<td>No sample</td>
</tr>
<tr>
<td>330 to 340</td>
<td>1,480 to 1,470</td>
<td>Dense gray sand-size cuttings with minor olivine phenocrysts &lt; 1 mm across.</td>
</tr>
<tr>
<td>340 to 350</td>
<td>1,470 to 1,460</td>
<td>No sample</td>
</tr>
<tr>
<td>350 to 360</td>
<td>1,460 to 1,450</td>
<td>Dense dark gray aphyric cuttings</td>
</tr>
<tr>
<td>360 to 380</td>
<td>1,450 to 1,420</td>
<td>No sample, lost circulation?</td>
</tr>
<tr>
<td>380 to 550</td>
<td>1,420 to 1,250</td>
<td>Dense non-vascular aphyric sand or block lava(?)</td>
</tr>
<tr>
<td>550 to 580</td>
<td>1,250 to 1,240</td>
<td>Mixture of dense gray and brown cuttings with round vesicles.</td>
</tr>
<tr>
<td>580 to 590</td>
<td>1,240 to 1,220</td>
<td>No sample</td>
</tr>
<tr>
<td>590 to 610</td>
<td>1,220 to 1,200</td>
<td>Dense dark gray cuttings with olivine and plagioclase feldspar phenocrysts &lt; 1 mm across.</td>
</tr>
<tr>
<td>610 to 630</td>
<td>1,200 to 1,180</td>
<td>No sample</td>
</tr>
<tr>
<td>630 to 650</td>
<td>1,180 to 1,160</td>
<td>Dense dark gray cuttings with olivine and plagioclase feldspar phenocrysts present olivine&gt;feldspar.</td>
</tr>
<tr>
<td>650 to 660</td>
<td>1,160 to 1,150</td>
<td>No sample</td>
</tr>
<tr>
<td>660 to 670</td>
<td>1,150 to 1,140</td>
<td>Dense dark gray cuttings with olivine and plagioclase feldspar phenocrysts &lt; 1 mm across.</td>
</tr>
<tr>
<td>670 to 680</td>
<td>1,140 to 1,120</td>
<td>No sample</td>
</tr>
<tr>
<td>680 to 700</td>
<td>1,120 to 1,110</td>
<td>Dark gray olivine phytic (oceanite?) about 20% of sample also minor plagioclase feldspar; phenocryst 2-3 mm across.</td>
</tr>
<tr>
<td>700 to 1,490</td>
<td>1,110 to 1,100</td>
<td>No sample, lost circulation</td>
</tr>
<tr>
<td>1,490 to 1,510</td>
<td>1,100 to 1,100</td>
<td>Gray sand-size cuttings with minor olivine phenocrysts and milky white secondary mineral.</td>
</tr>
<tr>
<td>1,510 to 1,865</td>
<td>960 to 950</td>
<td>Sample from bit, dry reddish brown clay.</td>
</tr>
<tr>
<td>1,865 to 1,975</td>
<td>950 to 750</td>
<td>No sample, lost circulation</td>
</tr>
</tbody>
</table>

Note: Ground elevation is 1,799.03 ft., msl + 11 ft. to Kelly bushing = 1,810 ft., msl (benchmark used for cutting elevations).

About 20 bags of cuttings were unreadable regarding their depth intervals.

See Glenn - trouble w/ returns.
<table>
<thead>
<tr>
<th>TO:</th>
<th>INIT.</th>
<th>TO:</th>
<th>INIT.</th>
<th>FOR:</th>
<th>PLEASE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMATA, R.</td>
<td></td>
<td>KAWAHARA, K.</td>
<td></td>
<td>Approval</td>
<td>Review &amp; Comment</td>
</tr>
<tr>
<td>UYENO, D.</td>
<td></td>
<td>HARDY, R.</td>
<td></td>
<td>Signature</td>
<td>Type Draft</td>
</tr>
<tr>
<td>CHONG, R.</td>
<td></td>
<td>SAKODA, E.</td>
<td></td>
<td>Information</td>
<td>Type Final</td>
</tr>
<tr>
<td>KIMURA, J.</td>
<td></td>
<td>NAKAMA, L.</td>
<td></td>
<td></td>
<td>File</td>
</tr>
<tr>
<td>OHYE, M.</td>
<td></td>
<td>DANBARRA, S</td>
<td></td>
<td></td>
<td>Xerox copies</td>
</tr>
<tr>
<td>FUJII, N.</td>
<td></td>
<td>HOAGBIN, S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YOSHINAGA, M.</td>
<td></td>
<td>YODA, K.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWANSON, S.</td>
<td></td>
<td>CHING, F.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KUNIMURA, I.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGLAND, D.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*PLEASE:*

- Review & Comment
- Type Draft
- Type Final
- File
- Xerox copies
- Take Action:

**Please See Me**

Charley, there were many changes for clarity/accuracy.
April 22, 2008

Mr. Tom Nance
Tom Nance Water Resource Engineering
680 Ala Moana Boulevard, Ste. 406
Honolulu, HI 96813

Dear Mr. Nance:

Variance Request for Well Depth
ML&P Piilolo Well (Well No. 5118-03)

Thank you for your presentation, handouts, and discussion at our office on Thursday, April 3, 2008, concerning drilling depth options for the captioned well. We understand that you hope to improve the well’s current yield by drilling deeper than the Hawaii Well Construction and Pump Installation Standards (HWCPIS) allow and requested a variance from the ¾ depth limitation as defined in Section 2.2 HWCPIS.

Based on an initial head of approximately +11.5 ft. el. msl, the standard maximum depth is approximately -118 ft. el. msl. The bottom of the well is approximately -110 ft. el. msl, and initial pump testing indicates that the well experiences significant turbulent losses such that pumping up to the requested 1400 gpm capacity will result in unacceptable drawdowns. Based on experience with the Pookela Well (5118-02) in the vicinity, the variance request is to continue drilling to -140 ft. el., and to make a decision at that point. If the well does not show significant improvement then the drilling will stop. If the well shows significant improvement you could go as deep as -160 ft. el. msl. Both depths are less than the ½ maximum depth of approximately -236 ft. el. msl, which only require Chairperson variance approval rather than full Commission action.

Your variance request is hereby approved based on the understanding as described in this letter. We look forward to continued updates on your progress and positive results.

If you have any questions, please contact Charley Ice of our staff at 587-0251.

Sincerely,

[Signature]

KEN C. KAWAHARA, P.E.
Deputy Director

c: Water Resources International, Inc.
### Calendar Entry

#### Meeting

<table>
<thead>
<tr>
<th><strong>Subject</strong></th>
<th>Piiholo Well (Maui), 5118-03</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>When</strong></td>
<td></td>
</tr>
<tr>
<td>Starts</td>
<td>Thu 04/03/2008 11:00 AM</td>
</tr>
<tr>
<td>Ends</td>
<td>Thu 04/03/2008 12:00 PM</td>
</tr>
<tr>
<td><strong>Invitees</strong></td>
<td>Required (to) Diane R England/DLNR/StateHiUS, Ronnie C</td>
</tr>
<tr>
<td><strong>Chair</strong></td>
<td>DLNR.CW.DLNR/StateHiUS</td>
</tr>
<tr>
<td><strong>Sent By</strong></td>
<td>Charley F Ice/DLNR/StateHiUS</td>
</tr>
<tr>
<td><strong>Where</strong></td>
<td>Location CWRM conference room</td>
</tr>
<tr>
<td><strong>Categorize</strong></td>
<td></td>
</tr>
</tbody>
</table>

#### Description

Discuss the well depth of a well under construction; low yield at current maximum allowed. Application and background to be hand-distributed.

#### Your Notes

Diane, Ronnie, Tom Name.

- hole drilled pilot hole.
- встречи engineer 1st phase 2-" casing original (too heavy for rigs in Hawaii)
- Tom measured N1.55'
- 140' request last we limited to 110 (you ok with this)
- open hole zero accords present
- 180' depth hit some pecked water
- drill to 140 then make a decision - may go to 160'.

Previous driller Ronny didn't know what he was doing.
Figure 1. Pumping Rate and Water Level Response During the March 26, 2008 Pilot Borehole Pump Test
Figure 2. Field Conductivity of the Water Pumped During the March 26, 2008 Pilot Borehole Pump Test

The conductivity of the water pumped during the March 26, 2008 pilot borehole pump test is plotted against the time of day on March 26, 2008. The graph shows a decrease in conductivity over time, with a distinct segment labeled 'March 26th Pump Test' and another labeled 'Recovery.'
Figure 3. Fitted Curve to the Step Test Data
Figure 3. Fitted Curve to the Step Test Data
Figure 4. Extrapolations of the Step Test Fitted Curve

- Total Drawdown
- Linear Component
Figure 4. Extrapolations of the Step Test Fitted Curve

- 1400 GPM
- 1050 GPM
- 171 Ft
- 97 Ft
- 57 Ft
- 32 Ft

Drawdown (Feet)

Pumping Rate (GPM)

- Fitted Curve
- 1/3 of the Fitted Curve
Piiholo Pilot Borehole
March 31, 2008

Conductivity (Micro-Siemens/cm)

Depth into Water (Feet)

Temperature (Deg F)

- Conductivity
- Temperature
Recorded Water Level

Day and Time

Water Level (Feet MSL)

3/26/08 6:00  3/26/08 9:00  3/26/08 12:00  3/26/08 15:00  3/26/08 18:00
PUMP INSTALLATION PERMIT
Piiholo-ML&P Well, Well No. 5118-03

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 Piiholo-ML&P Well (Well No. 5118-03) at TMK 2-4-12:6, Maui, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) 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. No withdrawal of water shall be made other than for testing until a Certificate of Pump Installation Completion has been issued by the Commission.

3. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.

4. The pump installation permit shall be for installation of a 1400 gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.

5. A water-level measurement access shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels.

6. The permittee shall install an approved meter or other appropriate means for measuring and reporting withdrawals and appropriate devices or means for measuring chlorides and temperature at the well head.

7. Well Completion Report Part II shall be submitted to the Chairperson within 60 days after completion of work. This form can be obtained by contacting staff or on the internet at www.hawaii.gov/dlnr/cwrm.

8. 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.

9. 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 HWCPIS. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

10. 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 the date the permit expires.

11. 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.

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

Date of Approval: June 19, 2007
Expiration Date: June 19, 2009

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 understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5,000 per day starting from the permit date of approval.

Installer’s Signature: Blaise Clay
C-57, C-57a, or A License #: 17737 Date: 7/10/07
Printed Name: Blaise Clay Firm or Title: Water Resources International, Inc.

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

Attachments
WELL CONSTRUCTION PERMIT
Piiholo-ML&P Well, Well No. 5118-03

Note: This permit shall be prominently displayed at the construction 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 Piiholo-ML&P Well (Well No. 5118-03) at TMK 2-4-12.6, Maui, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

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

2. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.

3. The well construction permit shall be for construction and testing of the well only. The permittee shall coordinate with the Chairperson and conduct a pumping test in accordance with the HWCPIS (the latest pump test worksheet can be obtained by contacting Commission staff or at www.hawaii.gov/dlnr/cwrm/forms.htm). The permittee shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson. No withdrawal of water shall be made for purposes other than testing without a Certificate of Pump Installation Completion. The permitted pump capacity described on the pump installation permit may be reduced in the event that the pump test does not support the capacity.

4. 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.

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

6. In the event that historically significant remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and immediately contact the Department of Land and Natural Resources' State Historic Preservation Division. Work may recommence only after written concurrence by the State Historic Preservation Division.

7. 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.

8. The Well Completion Report Part 1 shall be submitted to the Chairperson within sixty (60) days after completion of work (please contact staff or visit www.hawaii.gov/dlnr/cwrm/forms.htm for current form).

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

10. The well construction 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 HWCPIS. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

11. 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 the date the permit expires.

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

13. 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.

14. This permit shall apply to the location shown on the application only. If the well is to be relocated, the permittee shall apply for a new well construction/pump installation permit in accordance with Hawaii Administrative Rules §13-168-12(f).

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

Date of Approval: June 19, 2007
Expiration Date: June 19, 2009

ALLAN A. SMITH, Interim 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 have signed, dated, and returned the permit to the Commission. I understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5,000 per day starting from the permit date of approval.

Driller's Signature: Blaise Clay
C-57 License #: 17737

Printed Name: Blaise Clay
Firm or Title: Water Resources International, Inc.

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

Attachment
July 3, 2007

Ref: 5118-03.wcp2

Mr. Blaise Clay
Water Resources International, Inc.
1100 Alakea Street 2900
Honolulu, HI 96813

Dear Mr. Clay:

Well Construction Permit
Piiholo-ML&P Well (Well No. 5118-03)

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 a 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 are copies of the Department of Health's (DOH) review comments. Please note DOH's requirements related to discharge of effluent from well drilling and testing activities.

2. Attached for your information is a copy of the State Department of Land and Natural Resources Land Division's comments related to water lease requirements.

3. Attached for your information is a copy of the State Department of Land and Natural Resources Historic Preservation Division's comments related to historic sites.

4. Attached for your information is a copy of your county's Department of Planning comments related to their concerns.

Please refer to the Permit Processes Worksheet for further information regarding the process of drilling a well and installing a pump.

No withdrawal of water shall be made other than for testing purposes until a certificate of pump installation completion has been issued by the Commission.
Please sign both permit originals and return one for our files. For copies of the aquifer pump test worksheet, please call staff or visit www.state.hi.us/dlnr/cwrm/forms.htm.

**IMPORTANT** - Drilling work shall not commence until a fully signed permit is returned to the Commission. The permit shall be prominently displayed or made available at the construction site during construction. Be advised that you may be subject to fines of up to $5,000 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.

Sincerely,

ALLAN A. SMITH
Interim Chairperson

Enclosures

c: Maui Land & Pineapple Company, Ltd.
(with applicable comments – DOH SDWB, WWB, CWB, Land Division, DHP, MDP)
USGS
Maui DWS
WELL CONSTRUCTION PERMIT

Pihiolo-ML&P Well, Well No. 5118-03

Note: This permit shall be prominently displayed at the construction 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 Pihiolo-ML&P Well (Well No. 5118-03) at TMK 2-4-12:6, Maui, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

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

2. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.

3. The well construction permit shall be for construction and testing of the well only. The permittee shall coordinate with the Chairperson and conduct a pumping test in accordance with the HWCPIS (the latest pump test worksheet can be obtained by contacting Commission staff or at www.hawaii.gov/dlnr/cwrm/forms.htm). The permittee shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson. No withdrawal of water shall be made for purposes other than testing without a Certificate of Pump Installation Completion. The permitted pump capacity described on the pump installation permit may be reduced in the event that the pump test does not support the capacity.

4. In basel 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.

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

6. In the event that historically significant remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and immediately contact the Department of Land and Natural Resources' State Historic Preservation Division. Work may recommence only after written concurrence by the State Historic Preservation Division.

7. 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.

8. The Well Completion Report Part I shall be submitted to the Chairperson within sixty (60) days after completion of work (please contact staff or visit www.hawaii.gov/dlnr/cwrm/forms.htm for current form).

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

10. The well construction 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 HWCPIS. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

11. 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 the date the permit expires.

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

13. 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.

14. This permit shall apply to the location shown on the application only. If the well is to be relocated, the permittee shall apply for a new well construction/pump installation permit in accordance with Hawaii Administrative Rules §13-168-12(f).

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

Date of Approval: June 19, 2007
Expiration Date: June 19, 2009

ALLAN A. SMITH, Interim 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 have signed, dated, and returned the permit to the Commission. I understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5,000 per day starting from the permit date of approval.

Driller's Signature: ___________________________ C-57 License #: 17737 Date: ___________________________

Printed Name: Blaise Clay Firm or Title: Water Resources International, Inc.

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

Attachment
Ref: 5118-03.pip

Mr. Blaise Clay  
Water Resources International, Inc.  
1100 Alakea Street, #2900  
Honolulu, HI 96813

Dear Mr. Clay:

Pump Installation Permit  
Piipolo-ML&P Well (Well No. 5118-03)

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

Special Conditions

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

2. Attached for your information are copies 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.

The permittee is responsible for all conditions of the permit. This includes ensuring the submission of a completed Well Completion Report Part II form within sixty (60) days after the pump installation work is completed. Be advised that you may be subject to fines of up to $5,000 per day for any violations of your permit conditions starting from the permit approval date.

Please sign both permit originals and return one for our files.

IMPORTANT - Pump installation shall not commence until a fully signed permit is returned to the Commission.

If you have any questions, please call Charley Ice of the Commission staff at 587-0251.

Sincerely,

[Signature]

ALLAN A. SMITH  
Interim Chairperson

Enclosure

c: Maui Land & Pineapple Company  
USGS  
Maui DWS
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 Piiholo-ML&P Well (Well No. 5118-03) at TMK 2-4-12:6, Maui, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) 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. No withdrawal of water shall be made other than for testing until a Certificate of Pump Installation Completion has been issued by the Commission.

3. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.

4. The pump installation permit shall be for installation of a 1400 gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.

5. A water-level measurement access shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels.

6. The permittee shall install an approved meter or other appropriate means for measuring and reporting withdrawals and appropriate devices or means for measuring chlorides and temperature at the well head.

7. Well Completion Report Part II shall be submitted to the Chairperson within 60 days after completion of work. This form can be obtained by contacting staff or on the internet at www.hawaii.gov/dlnr/cwrm.

8. 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.

9. 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 HWCPIS. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

10. 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 the date the permit expires.

11. 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.

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

Date of Approval: June 19, 2007
Expiration Date: June 19, 2009

ALLAN A. SMITH, Interim 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 understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5,000 per day starting from the permit date of approval.

Installer’s Signature: __________________________ C-57, C-57a, or A License #: 17737 Date: __________________________

Printed Name: Blaise Clay Firm or Title: Water Resources International, Inc.

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

Attachments
<table>
<thead>
<tr>
<th>TO:</th>
<th>INIT.</th>
<th>TO:</th>
<th>INIT.</th>
<th>FOR:</th>
<th>PLEASE:</th>
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<td>KAWAHARA, K.</td>
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<td>CHING, F.</td>
<td></td>
<td>KIMURA, J.</td>
<td></td>
<td>Signature</td>
<td>__ Review &amp; Comment</td>
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<td>CHONG, R.</td>
<td></td>
<td>KUNIMURA, I.</td>
<td></td>
<td>Information</td>
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<td></td>
<td>NAKAMA, L.</td>
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<td>SAKODA, E.</td>
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<td>HARDY, R.</td>
<td>☑</td>
<td>SWANSON, S.</td>
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<td>__ Xerox ___ copies</td>
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<td>HOAGBIN, S.</td>
<td>☑</td>
<td>UYENO, D.</td>
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<td>ICE, C.</td>
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<td>YODA, K.</td>
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<td>IMATA, R.</td>
<td></td>
<td>YOSHINAGA, M.</td>
<td></td>
<td></td>
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</tbody>
</table>

Please route to others as necessary. thx.
WATER RESOURCES INTERNATIONAL, INC.
1100 Alakea Street, Suite 2900
Honolulu, Hawaii 96813
Tel: (808) 531-8422 Fax: (808) 531-7181

LETTER OF TRANSMITTAL
Date: June 18, 2007 WI Job No. 558

RE: Piiholo Makawao, Maui
TMK (2) 2-4-12: parcel 6
Installation of Well at Piiholo, Makawao, Maui

TO: State of Hawaii – DLNR
Commission on Water Resource Management
PO Box 621
Honolulu, HI 96809

ATTN: Charley Ice

DEAR SONIA:

WE ARE SENDING YOU ☑ Attached ☐ Under separate cover via __________________ the following items:

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ 1998 Insurance Renewal Questionnaire

<table>
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<th>COPIES</th>
<th>DATE</th>
<th>NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
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<td>02-05-07</td>
<td>2 pgs.</td>
<td>Letter of Assurance for Well No. 5118-03 and Application for Permit for Piiholo, Maui</td>
</tr>
</tbody>
</table>

THESE ARE TRANSMITTED as checked below:

☐ For approval ☑ Approved as submitted ☐ Resubmit ____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit ____ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return ____ corrected prints
☐ For review and comment ☐ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS

COPY TO WRI Job File
Blaise Clay, Vice President Drilling Operations - WRI
Jeffrey T. Pearson, P.E., Water Manager – ML&P Co.

SIGNED Cara Ishizaki
Administrative Assistant

If enclosures are not as noted, kindly notify us.
Mr. Jeffrey T. Pearson, P.E.
Maui Land and Pineapple Company, Ltd.
P.O. Box 187
Kahului, HI 96733-6687

Dear Mr. Pearson:

Letter of Assurance for Well No. 5118-03

This Letter of Assurance is being issued upon the request for an extension to an approved well construction permit, to the applicant who is not a licensed contractor for the work. In accordance with the State Water Code, §174C-84(a), the permit can only be issued to a licensed contractor and to date one has not been identified for your well(s).

Once you have selected a licensed contractor(s), please have the contractor(s) sign and return to the Commission a copy of the original application, upon which the permits will be immediately issued provided that the following conditions are met:

1. The contractor(s) has no outstanding issues with the Commission.
2. There are no significant changes to the application.
3. There have been no significant changes to applicable laws, rules or regulations since the application date.
4. There have been no significant changes to hydrogeologic conditions since the application date.

Also, attached for your information are copies of comments from reviewing agencies.

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,

W. Roy Hardy
Hydrologic Program Manager

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

APPLICATION FOR PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 821, Honolulu, Hawaii 96820. 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 587-6225.

APPLICANT INFORMATION: Fill all boxes; if applicable, and place a check next to the primary contact.

1. (a) ☐ WELL OWNER: Maui Land & Pineapple Co. Warren Suzuki
    Mailing Address: P.O. Box 187 Kahului, HI 96733-6687
    Phone: (808) 877-3882
    Fax: (808) 871-0953
    E-mail: 

    (b) ☐ LAND OWNER: Same as above
    Mailing Address: 
    Phone: 
    Fax: 
    E-mail: 

    (c) ☐ CONTRACTOR: 
    Mailing Address: 
    Phone: 
    Fax: 
    E-mail: 

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

2. WELL NAME: Piiholo
   Island: Maui
   Address: 
   Tax Map Key: 2 4 12 6
   Zone: Sec: Plt: 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 quad map
   (b) a property tax map, showing well location referenced to established property boundaries

3. PROPOSED WORK: ☐ 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: 1400 gallons per minute

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

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 2,016,000 gallons per day
   (b) METHOD OF FLOW MEASUREMENT: ☐ Power meter ☐ Open-circuit ☐ 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 587-0414
   ☐ Not Required: Required, if approved, Environmental Impact Statement (EIS) or Environmental Assessment (EA) To determine if an EIS or EA is necessary, call OEGC at 586-4185
   ☐ Not Required: Required, if approved, necessary in OEGC bulletin
   Special Management Area Permit (SMAP): To determine if an SMAP is necessary; on Oahu, call 527-5374; on Maui, call 874-6368; for Maui county, call 270-7235; on Kauai, call 241-6637.
   ☐ Not Required: Required, if approved.

9. ARCHEOLOGICAL REQUIREMENTS: If required, please attach letter from DLNR Historic Preservation
   ☐ Not Required: Required, if approved

10. REMARKS, EXPLANATIONS: ____________________________

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

NOTE: Signatures 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 attains 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/nomination 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 of future use up to the permitted pump capacity; 5) 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 $10000.)

Well Owner: 
Signature: 
Date: 
Landowner: 
Signature: 
Date: 
Contractor: 
Signature: 
Date: 

Water Resources Int'l, Inc.

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

WCPPA Form 7/17/03
February 5, 2007

Mr. Jeffrey T. Pearson, P.E.
Maui Land and Pineapple Company, Ltd.
P.O. Box 187
Kahului, HI 96733-6687

Dear Mr. Pearson:

Letter of Assurance for Well No. 5118-03

This Letter of Assurance is being issued upon the request for an extension to an approved well construction permit, to the applicant who is not a licensed contractor for the work. In accordance with the State Water Code, §174C-84(a), the permit can only be issued to a licensed contractor and to date one has not been identified for your well(s).

Once you have selected a licensed contractor(s), please have the contractor(s) sign and return to the Commission a copy of the original application, upon which the permits will be immediately issued provided that the following conditions are met:

1. The contractor(s) has no outstanding issues with the Commission.
2. There are no significant changes to the application.
3. There have been no significant changes to applicable laws, rules or regulations since the application date.
4. There have been no significant changes to hydrogeologic conditions since the application date.

Also, attached for your information are copies of comments from reviewing agencies.

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,

W. Roy Hardy
Hydrologic Program Manager

Cl:ss
Enclosure
January 18, 2007

Mr. Charlie Ice, Hydrologist
Commission on Water Resource Management
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

Re: Request for Extension of Start Date on Well Construction Permit-
Maui Land & Pineapple Company, Inc. Piiholo Well (Permit # 5118-03)

Dear Mr. Ice:

By letter dated February 15, 2006, our consultant requested an extension of the start date for the above mentioned well. The Commission again kindly granted us an extension of nine (9) months, ending December 4, 2006.

Maui Land & Pineapple Company, Ltd. has been in good faith negotiations with the County of Maui Department of Water Supply on matters of source development and water allocation. These negotiations recently resulted in an agreement, finalized November 16, 2006, and we are now working to secure a driller to begin construction.

Unfortunately, we neglected to request an extension in a timely manner and we passed our recent deadline. Maui Land & Pineapple Company, Ltd respectfully requests the Commission on Water Resource Management to approve another (9) month extension of the start date for our well construction permit.

Your approval of our request will be greatly appreciated. We also wish to thank you for your assistance throughout this long process.

Sincerely,

Jeffrey T. Pearson, P.E.
Maui Land & Pineapple Company, Ltd.

cc: Mink & Yuen, Inc.
Warren Unemori, Unemori Engineering, Inc.

P.O. Box 187, Kahului, Hawaii 96733-6687
(808) 877-3351 • Fax (808) 871-4375 • www.mauiland.com
Can they produce a letter about the date discrepancy? Also, since no contractor identified, wouldn't we be going the LOA route now?

Charley F. Ice/DLNRI@StateHiUS

This was originally approved March 4, 2004, so I think we're OK in granting a second extension up through 2008, but I called to ask how long they think they'll actually need...

Charlie,  
As promised here is my letter request for extension.

Hard copy went in the mail today.

Mahalo for your consideration,

JP

Jeffrey T. Pearson, P.E.  
Water Manager  
Maui Land & Pineapple Co., Inc.  
Ph. 877-1606; Fax: 871-4375  

DOC070118-004.pdf
COMMISSION ON WATER RESOURCE MANAGEMENT

FROM: ROY
DATE: JAN 19 2007
SUSPENSE DATE: ________________

TO: ANAKALEA, P.  INIT:  TO: KUNIMURA, I.  INIT:  FOR: Approval
TO: CHING, F.  INIT:  TO: NAKAMA, L.  INIT:  Signature
TO: DANBARA, S.  INIT:  TO: NAKANO, D.  INIT:  Information
TO: FUJII, N.  INIT:  TO: OHYE, M.  INIT:  Approval
TO: GOODING, K.  INIT:  TO: SAKODA, E.  INIT:  Signature
TO: HARDY, R.  INIT:  TO: SWANSON, S.  INIT:  Information
TO: HOAGBIN, S.  INIT:  TO: UYENO, D.  INIT:  Approval
TO: ICE, C.  INIT:  TO: YODA, K.  INIT:  Signature
TO: IMATA, R.  INIT:  TO: YOSHINAGA, M.  INIT:  Information

---

should be ok.

Herdecopy; letter previously faxed answered ext at 110A sent 2/17/07
January 18, 2007

Mr. Charlie Ice, Hydrologist  
Commission on Water Resource Management  
State of Hawaii  
P.O. Box 621  
Honolulu, Hawaii 96809

Re: Request for Extension of Start Date on Well Construction Permit-  
Maui Land & Pineapple Company, Inc. Piilolo Well (Permit # 5118-03)

Dear Mr. Ice:

By letter dated February 15, 2006, our consultant requested an extension of the start date for the above mentioned well. The Commission again kindly granted us an extension of nine (9) months, ending December 4, 2006.

Maui Land & Pineapple Company, Ltd. has been in good faith negotiations with the County of Maui Department of Water Supply on matters of source development and water allocation. These negotiations recently resulted in an agreement, finalized November 16, 2006, and we are now working to secure a driller to begin construction.

Unfortunately, we neglected to request an extension in a timely manner and we passed our recent deadline. Maui Land & Pineapple Company, Ltd respectfully requests the Commission on Water Resource Management to approve another (9) month extension of the start date for our well construction permit.

Your approval of our request will be greatly appreciated. We also wish to thank you for your assistance throughout this long process.

Sincerely,

Jeffrey T. Pearson, P.E.
Maui Land & Pineapple Company, Ltd.

cc: Mink & Yuen, Inc.
    Warren Unemori, Unemori Engineering, Inc.
FROM: Charley

DATE: 19 Jan 07

TO:
- IMATA, R.
- NAKAMA, L.
- UYENO, D.
- HEKEKIA, J.
- KIMURA, J.
- OHYE, M.
- FUJI, N.
- YOSHINAGA, M.
- SWANSON, S.
- KUNIMURA, I.

INIT.

FOR:
- Approval
- Signature
- Information

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

Wouldn't we issue an LOA for both WCP & PP under our new process with no delays identified?
Can they produce a letter about the date discrepancy? Also, since no contractor identified, wouldn't we be going the LOA route now?

Charley F Ice/DLNRI/StateHiUS

This was originally approved March 4, 2004, so I think we're OK in granting a second extension up through 2008, but I called to ask how long they they think they'll actually need...

----- Forwarded by Charley F Ice/DLNRI/StateHiUS on 01/18/2007 04:54 PM -----

Charlie,
As promised here is my letter request for extension.

Hard copy went in the mail today:

Mahalo for your consideration,

JP

Jeffrey T. Pearson, P.E.
Water Manager
Maui Land & Pineapple Co., Inc.
Ph: 877-1606; Fax: 871-4375

DOC070118-004.pdf
Thanks Charlie for your help.

I thought I asked for an additional 9 months in the letter. We should be in the ground before that. We just need to finalize our contract with Water Resources International.

Mahalo,
JP

Jeffrey T. Pearson, P.E.
Water Manager
Maui Land & Pineapple Co., Inc.
Ph. 877-1606; Fax: 871-4375
January 18, 2007

Mr. Charlie Ice, Hydrologist
Commission on Water Resource Management
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

Re: Request for Extension of Start Date on Well Construction Permit-
Maui Land & Pineapple Company, Inc. Piiholo Well (Permit # 5118-03)

Dear Mr. Ice:

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Sincerely,

Jeffrey T. Pearson, P.E.
Maui Land & Pineapple Company, Ltd.

cc: Mink & Yuen, Inc.
    Warren Unemori, Unemori Engineering, Inc.
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Hard copy went in the mail today.

Mahalo for your consideration,

JP

Jeffrey T. Pearson, P.E.
Water Manager
Maui Land & Pineapple Co., Inc.
Ph. 877-1606; Fax: 871-4375

Charlie,
I made a bo bo.

I mistakenly did not ask for another extension for the well permit for Piilolo well. Well # 5118-03. Or last extension per your letter dated February 24, 2006 was only 9 months, expiring December 4, 2006.

I will draft a request for extension today and get it to you signed via PDF.

We have finally completed negotiations on an agreement with DWS ad are contracting with the well driller this month. Schedule is to drill by June 2007. That's right, this year.

I hope this does not create any trouble with another extension.

Thanks for your help,

JP

Jeffrey T. Pearson, P.E.
Water Manager
Maui Land & Pineapple Co., Inc.
Ph. 877-1606; Fax: 871-4375
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# creq
February 15, 2006

Mr. Charles Ice, Hydrologist
Commission on Water Resource Management
P O Box 621
Honolulu, Hawaii 96809

Re: Request for Extension of Start Date on Well Construction Permit-
MLP Piiholo Well (Well no. 5118-03)

Dear Mr. Ice:

By letter of April 28, 2005, we requested an extension of the start date for construction of the above well. Your commission kindly granted us an extension of the start date to March 4, 2006.

Up to the present date, Maui Land & Pineapple Co. Inc. has been diligently involved in good faith negotiations with the Maui Department of Water Supply on matters regarding source development and water allocation. Unfortunately, the issues have become so complex that more time will be required to complete negotiations.

Maui Land & Pineapple Co. Ltd. has authorized us, as their consultants, to apply for a time extension to resolve matters. Accordingly, we respectfully request the Commission on Water Resource Management to approve a nine (9) month extension of the start date for Well No. 5118-03, Makawao, Maui under the construction permit.

Your approval of our request will be greatly appreciated. We also wish to thank you for your assistance and many courtesies.

Sincerely,

[Signature]

George A L Yuen, President
Mink & Yuen, Inc.

cc. Jeff Pearson, MLP
Warren Unemori, Unemori & Assoc.
February 24, 2006

Mr. George A. L. Yuen  
Mink & Yuen, Inc.  
1670 Kalakaua Avenue, Suite 605  
Honolulu, HI 96826

Dear Mr. Yuen:

Extension of Well Construction Permit  
ML&P Piilolo Well (Well No. 5118-03)  

Thank you for your letter dated February 15, 2006, requesting a 9-month extension of the captioned permit. We understand that negotiations with the Maui Department of Water Supply concerning this well require additional time.

With this letter, your request is approved. Your new expiration date for this permit is December 4, 2006. All other conditions of the permit remain the same. Please keep a copy of this letter with your original permit.

If you have any questions, please call Charley Ice of the Commission staff at 587-0251.

Sincerely,

DEAN A. NAKANO  
Acting Deputy Director

Cc: Maui Land & Pineapple  
Maui Department of Water Supply
TO:  Charley Ice (DLNR)
FAX NO.:  587-0219
FROM:  George Yuen
FAX NO.:
DATE:  2/16/06
TIME:  10:15 AM
NUMBER OF PAGES INCLUDING COVER SHEET:  2

MESSAGE:

Charley-

I hope this looks O.K. to you. Please call me if you have any questions. (Hand copy mailed.)

Thanks,

George Yuen
February 15, 2006

Mr. Charles Ice, Hydrologist
Commission on Water Resource Management
P O Box 621
Honolulu, Hawaii 96809

Re: Request for Extension of Start Date on Well Construction Permit-
MLP Piilolo Well (Well no. 5118-03)

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Sincerely,

[Signature]
George A L Yuen
President
Mink & Yuen, Inc.

cc. Jeff Pearson, MLP
Warren Unemori, Unemori & Assoc.
FROM: ROY  DATE: SEP 14 2005  SUSPENSE DATE: ________________

TO: ANAKALEA, P.  INIT.  TO: KUNIMURA, I.  INIT:  FOR: Approval
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CHING, F.  ____  NAKANO, D.  ____  ____  ___________
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PLEASE: See Me  Review & Comment  Take Action  Type Draft  Type Final  File  Xerox ____ copies

we approved 3/4/04 - awhile ago.
they amended the depth! great. will see what comes
from here now.
September 13, 2005

Department of Land and Natural Resources
Commission on Water Resource Management
1151 Punchbowl Street, Room 227
Honolulu, Hawaii 96813

Attn: Mr. Charley Ice

Subject: ML&P Piiholo Well (5118-03)

Thank you for approving the Well Construction Permit for subject well.

We have revised the depth into the aquifer from 140 feet to 110 feet as requested in your letter. Sheet 1 of plan is attached for your information.

Should it become necessary to go deeper following the pump test, the applicant, through the office of Mink and Yuen, will seek a variance then.

We appreciate your cooperation and will keep you apprised of our progress.

Sincerely,

Warren S. Unemori
President

cc: Mink & Yuen
    Jeff Pearson
May 3, 2005

Mr. George A.L. Yuen
Mink & Yuen, Inc.
1670 Kalakaua Avenue, Suite 605
Honolulu, HI 96826

Dear Mr. Yuen:

Extension of Start Date
Well Construction Permit
ML&P Piilolo Well (Well No. 5118-03)

Thank you for your letter received April 28, 2005 requesting an extension of the start date for the captioned well. We understand that well owners Maui Land & Pineapple are negotiating details of dedicating the well to the Maui Department of Water Supply, which may require several months. Your request is for an extension of the start date to March 4, 2006.

By this letter, your request is approved. All other conditions of the permit remain the same. Please keep a copy of this letter with the well construction permit.

If you have any questions, please call Charley Ice of the Commission staff at 587-0251.

Sincerely,

W. Roy Jardine

DEAN A. NAKANO
Acting Deputy Director

Cl: ss
Mr. Dean Nakano, Acting Deputy
Commission on Water Resource Management
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Charley Ice

Dear Mr. Nakano:

Re: Extension of Start Date for Well Construction Permit for Maui Land And Pineapple Piilolo Well (Well No. 5118-03)

By letter of September 13, 2004, your department approved an extension of the start date for the above well to June 4, 2005. We understand that Maui Land and Pine is still negotiating with the Maui Department of Water Supply on the details for dedication of the well to the department. Outcome of the negotiations is not expected for several months.

We have been authorized by Maui Land and Pineapple to submit this request for a new start of March 4, 2006. Your approval of this request will be greatly appreciated.

Sincerely,

George A. L. Yuen
Mink & Yuen, Inc.
Consultant to ML&P

c.c. Warren Suzuki
Warren Unemori
September 13, 2004

Mr. George A.L. Yuen
Mink & Yuen, Inc.
1670 Kalakaua Avenue, #605
Honolulu, HI 96826

Dear Mr. Yuen:

Extension of Start Date for Well Construction Permit
ML&P Piiholo Well (Well No. 5118-03)

Thank you for your letter dated September 9, 2004, requesting an extension of the start date for the captioned well. We understand that negotiations for dedicating this well to the Maui Department of Water Supply are incomplete, delaying the start of work about nine months.

By this letter, your request is approved, and your new start date deadline is June 4, 2005. All other conditions of your permit remain the same.

If you have any questions, please call Charley Ice of the Commission staff at 587-0251.

Sincerely,

YVONNE Y. IZU
Deputy Director

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Note: This letter is marked as original.
September 9, 2004

Mr. Charles Ice, Hydrologist
Commission on Water Resource Management
P.O. Box 621
Honolulu, Hawaii 96809

Re: Request for Time Extension on the Construction Permit for Well No. 5118-03, Makawao, Maui, Hawaii.

Dear Mr. Ice:

On March 4, 2004, the Commission on Water Resource Management approved a construction permit for the above well with the stipulation that construction must begin within six (6) months after the date of approval.

Maui Land and Pineapple Company, Inc. fully intends to dedicate the completed well and appurtenances to the County of Maui and has been involved in the development of a mutually acceptable solution to allocation and various development concerns. The resolution of these issues is anticipated very shortly. However, because of the time required for negotiations, Maui Land and Pineapple Company, Inc. will need a time extension of about nine (9) months to complete plans, bid on the project, and work on the many details prior to commencement of work.

Mink and Yuen, Inc., consultant to Maui Land and Pineapple, Inc., has been authorized by letter of September 3, 2004 to apply for the time extension. Accordingly, Mink and Yuen, Inc., on behalf of Maui Land and Pineapple Company, Inc., respectfully requests the Commission on Water Resource Management to approve a nine (9) month extension of the construction permit for Well No. 5118-03, Makawao, Maui.

Approval of our request will be greatly appreciated.

Sincerely,

[Signature]
George A.L. Yuen, President
Mink and Yuen, Inc.

    Warren S. Unemori, Unemori and Associates
TO: Chapter Ice  
FAX NO.: 587-0219  
FROM: Geo. Yuen  
FAX NO.:  

DATE: 9/10/04  
TIME: 9:30 A.M.  
NUMBER OF PAGES INCLUDING COVER SHEET: (2)  

MESSAGE:  
Chaday -  
For sending this to you as instructed.  
Hope its O.K.  
Will mail hard copy.  
Thanks,  
Geo.
September 9, 2004

Mr. Charles Ice, Hydrologist
Commission on Water Resource Management
P.O. Box 621
Honolulu, Hawaii 96809

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Approval of our request will be greatly appreciated.

Sincerely,

George A.L. Yuen, President
Mink and Yuen, Inc.

    Warren S. Unemori, Unemori and Associates
**COMMISSION ON WATER RESOURCE MANAGEMENT**  
**ROUTE SLIP FOR PERMIT ISSUANCE**

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**WELL NUMBER** 5118-03  
**WELL NAME** ML4P-Piikolo

**ATTACHMENTS FOR WELL CONSTRUCTION PERMIT:**
- COVER LETTER
- PERMIT (2x)
- COMMENTS:
- SDWB
- WWB
- CBW
- HEER
- LD
- HP
- PUMP TEST
- WCR I FORM
- WELL CHECK PRINTOUT

**ATTACHMENTS FOR PUMP INSTALLATION PERMIT:**
- COVER LETTER
- PERMIT (2x)
- COMMENTS:
- SDWB
- WWB
- CBW
- HEER
- LD
- HP
- WCR II FORM
- WUR FORM

**TO BE SENT TO APPLICANT**

**FOR OFFICE USE ONLY**

**SUSPENSE DATE:** _______

**FROM:** CHARLEY  
**DATE:** 05 March 04
Hi Charley,

I need to request another extension to review this application. I was told that issues on the operation and maintenance of this well came up in yesterday's meeting. I have to verify with our director. He is in Honolulu right now.

Thanks,
edna

Yes; thank you!

"Edna Manzano"
<Edna.Manzano@co.mau.hi.us>

To

02/25/2004 11:49 AM

Subject

M L & P Piilolo Well (Well No.5118-03)

Hi Charley,

I want to request additional review time for this project. Is end of next week or earlier ok?

thanks,
edna

Edna Manzano
Department of Water Supply
County of Maui
200 South High Street
Wailuku Hi 96793
Phone - (808) 270-8044
donna.manzano@co.mau.hi.us
March 10, 2004

Ref: 5118-03.wcp

Mr. Warren Suzuki
Maui Land and Pineapple Company
P.O. Box 187
Kahului, HI 96733-6687

Dear Mr. Suzuki:

Well Construction Permit
ML&P Piilolo Well (Well No. 5118-03)

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

Special Conditions

1. Attached for your information is a copy of the Department of Health's (DOH) review comments. Please note DOH's requirements related to discharge of effluent from well drilling and testing activities.
2. Well depth shall not exceed one-fourth the theoretical aquifer thickness.
3. The well casing shall meet the minimum thickness required in the Hawaii Well Construction and Pump Installation Standards (HWCPIS, February 2004).

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 (February 2004) 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.

Sincerely,

[Signature]

Peter T. Young
Chairperson

Enclosures

c: Mink & Yuen, Inc.
WELL CONSTRUCTION PERMIT
ML&P Piilolo Well, Well No. 5118-03

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 ML&P Piilolo Well (Well No. 5118-03) at Piilolo Road, Makawao, Maui, TMK 2-4-12:6, subject to the Hawaii Well Construction & Pump Installation Standards (February 2004) which include but are not limited to the following conditions:

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

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

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

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

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

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

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

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

9. The well construction permit application is incorporated into this permit by reference and is subject to the Hawaii Well Construction & Pump Installation Standards (February 2004; 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: March 4, 2004
Expiration Date: March 4, 2006

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 driller have signed, dated, and returned the permit to the Commission. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day starting from the permit date of approval.

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

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

Please sign both copies of this permit, return one to the Chairperson, and retain the other for your records.
February 9, 2004

TO: Honorable Chiyome L. Fukino, M.D., Director
   Department of Health
   Attention: Harold Yee, Wastewater Branch
             William Wong, Safe Drinking Water Branch
             Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
             Alec Wong, Clean Water Branch

FROM: Peter T. Young, Chairperson
      Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
         ML&P-Piiholo Well (Well No. 5118-03)

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 February 25, 2004. 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.

Attached:

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 site (information attached).

[ ] An NPDES permit is required.

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

[ ] No comments/objections

Contact Person: Lori N. Kajiwara
Signed: PETER T. YOUNG
Facsimile Request and Cover Sheet
Wastewater Branch
919 Ala Moana Blvd. Room 309
Honolulu, Hawaii 96814-4920
(808) 586-4294 Fax (808) 586-4300

Date: 02/17/2004

To: Roland Tegano, Maui District Health Office
    Lori Kajiwara, Planning/Design Section
    Email: lkajiwara@oha.health.state.hi.us

Subject: Request for Information

Please check all that apply:
[ ] sewered   [ ] no record   [ ] cesspool   [ ] septic tank   [ ] aerobic unit
[ ] can be sewered

File # if applicable: ____________    # of Bedrooms ____________
Record Date: ___________________
Submit Date: ___________________
Plan Approval Date: ____________
Inspection Date: ____________
System "Approval for Use" Date: ____________

Other: __________________________

Please fax site/plot plan if available. Thank you.
February 9, 2004

Mr. Warren Suzuki
Maui Land and Pineapple Company
P.O. Box 187
Kahului, HI 96733-6687

Dear Mr. Suzuki:

Well Construction/Pump Installation Permit Applications for Well No. 5118-03

We acknowledge receipt, on February 4, 2004, of your completed Well Construction/Pump Installation permit application and filing fee for the ML&P-Piiholo Well (Well No. 5118-03). You can expect your application to be processed within ninety (90) days from this date.

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

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

Sincerely,

W.F. Young
Chairperson

Meredith J. Ching
Clayton W. Dela Cruz
James A. Frazier
Chiyome L. Fukino, M.D.
Stephanie A. Whalen
Ernest Y.W. Lau
Deputy Director

Cl: ss

c: Mink & Yuen, Inc.
Warren Unemori
February 9, 2004

TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attention: Harold Yee, Wastewater Branch
William Wong, Safe Drinking Water Branch
Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
Alec Wong, Clean Water Branch

FROM: Peter T. Young, Chairperson
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
ML&P-Piiholo Well (Well No. 5118-03)

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 February 25, 2004. 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.

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 lap or an approved backflow preventer, and by clearly labeling all non-potable spigots with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested.

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

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

An NPDES permit is required.

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

No comments/objections

Contact Person: _______________________________ Phone: _______________
Signed: _______________________________ Date: _______________
February 9, 2004

TO: Dede Mamiya, Administrator
   Land Division

FROM: Ernest Y.W. Lau, Deputy Director
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
ML&P-Piiholo Well (Well No. 5118-03)

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 February 25, 2004. 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: ____________
February 9, 2004

TO: Holly McEldowney, Acting Administrator
   Historic Preservation

FROM: Ernest Y.W. Lau, Deputy Director
       Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
         ML&P-Piiholo Well (Well No. 5118-03)

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 February 25, 2004. 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.

CLASS
Attachment(s)

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: __________
TO: George Tengan, Director
   Department of Water Supply
   County of Maui

FROM: Peter T. Young, Chairperson
      Commission on Water Resource Management

SUBJECT: Well Construction and Pump Installation Permit Applications
         ML&P-Piiholo Well (Well No. 5118-03)

February 9, 2004

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

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by February 25, 2004. 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.

Cl: ss
Attachment(s)

RESPONSE:

[ ]

Contact Person: ___________________________ Phone: ________________

Signed: ___________________________ Date: ___________________________
February 9, 2004

TO: Michael W. Foley, Director
    Department of Planning
    County of Maui

FROM: Peter T. Young, Chairperson
      Commission on Water Resource Management

SUBJECT: Well Construction and Pump Installation Permit Applications
         ML&P-Piiholo Well (Well No. 5118-03)

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

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by February 25, 2004. 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.

Contact Person: ___________________________ Phone: ____________
Signed: ___________________________ Date: ____________
FACSIMILE TRANSMISSION COVER SHEET

DATE: 02/23/04

TO: DLNR

TELEPHONE NO.: FACSIMILE NO.: 587-0390

FROM: Planning Dept

NO. OF PAGES (INCLUDING COVER SHEET): 2

REMARKS OR SPECIAL INSTRUCTIONS:

MAUI COUNTY CODE IS AVAILABLE ON THE INTERNET
www.co.maui.hi.us

If you do not receive all pages or if there is a problem with this transmittal, please call (808) 270-7735. Our facsimile number is (808) 270-7634.

planning@co.maui.hi.us

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
PLANNING DIVISION (808) 270-7735; ZONING DIVISION (808) 270-7253; FACSIMILE (808) 270-7634
Applicant/Agency: Ernest Y.W. Lau, Deputy Director
Address: State of Hawaii
Department of Land and Natural Resources
Commission of Water Resource Management
P.O. Box 621
Honolulu, Hawaii 96809

Ahupua’a: Makawao
District, Island: Makawao, Maui
TMK: (2) 2-4-012:006

1. We believe there are no historic properties present, because:

   a) intensive cultivation has altered the land
   b) residential development/urbanization has altered the land
   c) previous grubbing/grading has altered the land
   d) an acceptable archaeological assessment or inventory survey found no historic properties
   e) other: Based on the submitted permit application, we understand the existing access road will be used and the actual area of impact is quite limited.

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

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

   In the event that historic sites (human skeletal remains, etc.) are identified during the construction activities, all work needs to cease in the immediate vicinity of the find, the find needs to be
protected from additional disturbance, and the State Historic Preservation Office needs to be contacted immediately at 243-5169, on Maui, or at (808) 692-8023, on O'ahu.

Staff: Cathleen A. Dagher  Date: 18 March 2004
Assistant Maui/Lana'i Island Archaeologist
(808) 692-8023
MEMO TO: George Y. Tengan, Director
Water Department

FROM: Michael W. Foley, Director
Planning Department

ATTN: Edna Manzano, Water Resources Planner

SUBJECT: MAUI LAND AND PINEAPPLE - PIHOLO WELL (WELL NO. 5118-03)
CONSTRUCTION AND PUMP INSTALLATION AT MAUI TAX MAP KEY: 2-4-012:006 (04-009)

The Planning Department has reviewed the subject request and has the following comments to offer:

1. The proposed well is located on lands designated as Agricultural by the State Land Use Commission. The proposed use is an allowable use in this designation.

2. The proposed well is located on land designated Agricultural in the Makawao-Pukalani-Kula Community Plan.

3. The proposed well is located on lands zoned Agricultural. The proposed use is an allowable use in the zoning district.

4. The proposed well is located outside of the Special Management Area, therefore, a Special Management Area Use Permit is not required.

Thank you for the opportunity to comment. If additional clarification is required, please contact Ms. Robyn Loudermilk, Staff Planner of this office at 270-7735.
February 9, 2004

TO: Michael W. Foley, Director
    Department of Planning
    County of Maui

FROM: Peter T. Young, Chairperson
    Commission on Water Resource Management

SUBJECT: Well Construction and Pump Installation Permit Applications
ML&P-Pilholo Well (Well No. 5118-03)

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

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by February 25, 2004. 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: State Land Use District: Ag
            Makawao-Pukalani-Kula Community Plan: Ag
            Zoning: Ag
            Special Management Area: Outside
            The proposed use is an allowable use in both the State and County Ag designations.

Contact Person: Robyn Loudermilk          Phone: 270-7185

Signed: Peter T. Young
        Date: 2/23/04
February 9, 2004

TO: Dede Mamiya, Administrator
   Land Division

FROM: Ernest Y.W. Lau, Deputy Director
       Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
         ML&P-Piliholo Well (Well No. 5118-03)

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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.

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

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

[X] 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

[X] Other comments: Original source of private title is Grant 157 issued prior to Statehood.

Contact Person: Gary Martin                  Phone: 587-0421

Signed: Gary Martin                          Date: MAR 3 2004
STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
P.O. BOX 821  
HONOLULU, HAWAII 96810

February 9, 2004

TO: Honorable Chiyome L. Fukino, M.D., Director  
Department of Health  
Attention: Harold Yee, Wastewater Branch  
William Wong, Safe Drinking Water Branch  
Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response  
Alec Wong, Clean Water Branch

FROM: Peter T. Young, Chairperson  
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application  
ML&P-Piliholo Well (Well No. 5118-03)

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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 Ike of the Commission staff at 587-0251.

Signed: [Signature]  
Date: FEB 17, 2004
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

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**Post-it Fax Note**

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<tr>
<th>To</th>
<th>From</th>
<th>Date</th>
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<th>Fax</th>
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<tbody>
<tr>
<td>Charley Ice</td>
<td>Alex Wong</td>
<td>2/23/04</td>
<td>587-035</td>
<td>587-035</td>
</tr>
</tbody>
</table>
February 9, 2004

TO: Honorable Chiyoue L. Fukino, M.D., Director  
Department of Health  
Attention: Harold Yee, Wastewater Branch  
William Wong, Safe Drinking Water Branch  
Dr. Keith Kawaaok, Hazardous Evaluation and Emergency Response  
Alec Wong, Clean Water Branch

FROM: Peter T. Young, Chairperson  
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application  
ML&P-Piloholo Well (Well No. 5118-03)

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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 Iee of the Commission staff at 887-0251.

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 over 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, §11-20-28.

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

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[1] It does not appear that the 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 [ ] is not located near the proposed well site (information attached).

[1] 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  
Date: 2/23/04

Signed: Alec Wong
February 3, 2004

Mr. Ernest Y.W. Lau
Deputy Director
Commission on Water Resource Development
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Charlie Ice

Re: Well Construction/Pump Installation Permit
Application for Pihoalo Well

Thank you for your letter of January 12, 2004. We are responding to the four items as listed in your letter as follows:

1. The USGS quad and TMK 2-4-12:6 maps are attached.

2. The well site is not located within the Conservation District. We consulted with Cathy Dagher of the Historic Sites Division and she said that based on all available information, no archaeological requirements need be addressed.

3. Materials used in the well construction are indicated in the application form as submitted. However, all Hawaii Well Construction and Pump Installation Standards will be observed.

4. We confirm that the well will be a municipal rather than domestic type well.

Please find attached our amended Application for Permit form. Your approval will be appreciated.

Sincerely,

George A. Yuen
Mink & Yuen, Inc.

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

Instructions: Please print or type your application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96813. 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 808-687-0225. For further information and updates to this application form, visit http://www.state.hi.us/dlnr/wrm.

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

| 1. (a) | WELL OWNER: | Maui Land & Pineapple Co. Warren Suzuki |
|        | Mailing Address: | P.O. Box 187 Kahului, HI 96733-6687 |
|        | Fax: | (808) 871-0953 |
|        | Phone: | (808) 877-3882 |

(b) LAND OWNER: Same as above

(c) CONTRACTOR: ________________________

Phone: ________________________

Fax: ________________________

Well & Pump Information: (Please fill in the diagram on the back of this form.)

| 2. WELL NAME: | Piilolo |
| Address: | island: Maui |
| Tax Map Key: | Zone: 2, Sec: 4, Par: 12, Parcel: 6 |

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 quadrangle map. (b) 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
   - Abandon/Seal

State Well No.: ________________________

(If unknown, please call Commission at 808-687-0225)

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 (including noncommercial systems)
   - Other (explain): ________________________

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

   If service connections are above, please describe: ________________________

   If required, please attach letter from DLNR Historic Preservation Division.

   No. of Acres: ________________________

   Military ☐ Other ☐

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: ________________________
   gallons per day

   (b) METHOD OF FLOW MEASUREMENT:
   - Flowmeter
   - Open-circuit
   - Weir
   - 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 808-687-0414

   Not Required ☐ Required ☐

   Environmental Impact Statement (EIS) or Environmental Assessment (EA): To determine if an EIS or EA is necessary, call OECO at 808-687-0415

   Not Required ☐ Required ☐

   Special Management Area Permit (SMAP): To determine if an SMAP is necessary, on Oahu, call 808-687-0414; on Hawaii, call 961-9630; for Maui county, call 270-7235; on Kauai, call 241-6877.

   Not Required ☐ Required ☐

   Archaeological Requirements:
   To find out if an archaeological work is required: on Oahu, call Elaine Jourdan at 808-687-0227; on Hawaii, call Mary McManus at 327-7295; for Maui county, call Cathy Dugan at 808-687-0223; on Kauai, call Nancy McMahan at 270-7235.

   Not Required ☐ Required ☐

9. REMARKS, EXPLANATIONS: ________________________

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

   Says Div.

   Water Construction: ________________________

   Pump Installation: ________________________

   Water Conservation: ________________________

   For official use only:

   Aquifer System No. ________________________

   State Well No. ________________________

   Date: ________________________

   For Official Use Only: ________________________
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Elevation at top of casing 1791 ft. masl

Hole Diameter: 30 in.

Minimum of 2" Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)
Ground Elevation: 1790 ft. masl

Solid Casing: (2.90% x [Ground Elev. - Water Level Elev.])
Total Length: 1780 ft.
Nominal Diameter: 24 in.
Wall Thickness: 375 in.
Bottom Elevation: 10 ft. masl

Open Casing: X Perforated or Screen
Total Length: 70 ft.
Nominal Diameter: 24 in.
Wall Thickness: 312 in.
Bottom Elevation: -60 ft. masl

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

Open Hole:
Length: 80 ft.
Diameter: 18 in.
Bottom Elevation: -140 ft. masl

* The approximate elevation must be referenced to mean sea level (masl) 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 Basalt Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elevation - 4 x Water Level Elev.)

Example: Estimated = 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = (2 - .25) = -1.5 ft.

Solid Casing Material:
Carbon Steel: compliant with (check one or more): ANSIAWWA C200 API Spec. 5L ASTM A53 ASTM A139
Stainless Steel: compliant with (check one): ASTM A409 (production weld) ASTM A312 (monitor weld)
ABS Plastic conforming to ASTM D480 and ASTM D1527: (check one) Schedule 40 Schedule 80
PVC Plastic conforming to ASTM D480 and (ASTM D1788 or ASTM D2241): (check one) Schedule 40 Schedule 80 Schedule 120
Thermoplastic: compliant with (check one)
- Filament Wound Resin Pipe conforming to ASTM D2996
- Centrifugally Cast Resin Pipe conforming to ASTM D2267
- 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
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Example: Estimated = 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = (2 - .25) = -1.5 ft.
Mr. George Yuen
Mink & Yuen, Inc.
1670 Kalakaua Avenue, Ste. 605
Honolulu, HI 96826

Dear Mr. Yuen:

Well Construction/Pump Installation Permit Application for Piiholo Well

We have received your Well Construction/Pump Installation permit application and filing fee for the Piiholo Well. However, your application is incomplete. Matters which must be addressed before we accept your application as complete are as follows:

1. USGS quad and TMK maps must be provided to identify the proposed well location.

2. Possible legal requirements for Conservation District Use Permit, the applicability of Chapter 343, HRS, and any archaeological requirements, must be addressed. If there are no such requirements, the applicant must sign to that effect.

3. Materials to be used in well construction are normally identified. In any case, the driller must follow Hawaii Well Construction and Pump Installation Standards, and the driller will eventually be expected to sign and return an approved well construction permit.

4. We believe that this well is not proposed to be an "individual domestic" well, but is rather a municipal type well. Please confirm.

Upon receipt of the above information, we will accept your application as complete and you can then expect your application to be processed within ninety (90) days.

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

If you have any questions about your permit application, please contact Charley Ice of the Commission staff at 587-0251.

Sincerely,

[Signature]

ERNEST Y.W. LAU
Deputy Director

C: Maui Land & Pineapple Company
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR NEW APPLICATIONS

FROM: CHARLEY
DATE: 30-Dec-03
SUSPENSE DATE: 6-Jan-04

TO: BAUER, G.
INIT.

TO: LUM, A.
INIT.

FOR: 3 Approval

PLEASE:
1 Review & Comment
2 Take Action
3 Signature
4 Information
5 Type Draft acknow letter
6 Type Final, label new file folder
7 File
8 Xerox copies

HIGA, D.
HIRANO, E.
ICE, C.
IMATA, R.
JINNAI, R.
KUNIMURA, I.

WELL CONSTRUCTION
WELL NAME Piiholo
PUMP INSTALLATION

ATTACHMENTS FOR APPLICATION PROCESSING - Both applicant & staff generated
1 TRANS. LETTER
2 CWRM MAP
3 APPL. FORM (5 COPIES)
4 USGS MAPS (5 COPIES)
5 TAX MAPS (5 COPIES)
6 PARCEL OWNER VERIF. MLS PRINTOUT
7 CONTRACTOR VERIF. DCCA LICENSE SCREEN PRINTOUT
8 ALL INFO FILLED IN
9 BACKGROUND CHECK
10 $25 FEE DEPOSIT SLIP

FOLDER:
MADE NEW FILE FOLDER, ATTACHED
FILE FOLDER ALREADY MADE, IN FILE CABINET

INCOMPLETE ACTION DATES:

DATE ACTION

cannot be individual domestic as applied for!

missing maps - not sure what aquifer they are talking about

can't get in touch w/ More & yuen on this application?
They want it listed in plain writing because there's so much difficult

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**TOTAL** $125.00

REMARKS: LINE (1) Kaupo Ranch Wells
LINE (2) Piiholo Well, TMK 2-4-12:6
LINE (3) Kulaimano Well Development, TMK 2-8-04-1 & 3
LINE (4) Lydge 1 Well, TMK 4-6-12:17
LINE (5) 
LINE (6) 
LINE (7) 
LINE (8) 
LINE (9) 
LINE (10) 

Dec. 18, 2003

Charlie:

Would appreciate your processing this application.

Thank You,

[Signature]

Dec. 23, 2003
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

WELL & PUMP INFORMATION:

2. WELL NAME: Piilani
   island: Maui
   Address: ____________________
   Tax Map Key: 2 4 12 6
   Zone Sec Flat 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 quad map
   (b) a property tax map, showing well location referenced to established property boundaries

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

   "State Well No.: ____________________ (if unknown, please call Commission at 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:
   - 1400 gallons per minute

6. PROPOSED USE:
   (check all that apply)
   - Domestic (individual, noncommercial water system)
   - Industrial
   - Municipal (including hotels, stores, etc.)
   - Irrigation (crop)
   - Military
   - Other (explain):

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

7. (a) PROPOSED AMOUNT OF WITHDRAWAL:
   - 2,016,000 gallons per day

   (b) METHOD OF FLOW MEASUREMENT:
   - Flowmeter
   - Open-pipe
   - Meter
   - Office
   - 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 587-0414
   - Not Required
   - If required, date approved:
   - Environmental Impact Statement (EIS) or Environmental Assessment (EA) To determine if an EIS or EA is necessary, call OEC at 814-4185
   - Not Required
   - If required, date published in OEC bulletin
   - Special Management Area Permit (SMAP) To determine if an SMAP is necessary: on Oahu, call 527-5734; on Kauai, call 961-6286; for Maui County, call 270-7235; on Kauai, call 241-6677.
   - Not Required
   - If required, date approved:

9. ARCHAEOLOGICAL REQUIREMENTS:
   - To find out if an archeological work is required: on Oahu, call Elaine Jourdane at 892-8023; on Kauai, call MaryAnne Maigret at 270-7235; on Maui County, call Cathy Deheer at 527-5734; on Kauai, call Nancy Mcmahen at 741-6677.
   - Not Required
   - If required, please attach letter from DLNR Historic Preservation

10. REMARKS, EXPLANATIONS:

   (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 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 correlative 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 correctly, any permit may be suspended until the item is brought into compliance, and any water use exceeding or exceeding may result in fines of up to $1000/day.

_________________________ ___________________________ ___________________________
Well Owner
(print legibly) Landowner
(print legibly) Contractor
(print legibly)

_________________________ ___________________________ ___________________________
Signature
(print legibly) Signature
(print legibly) Signature
(print legibly)

_________________________ ___________________________
Date
Date
Date

For official use only:

Latitude

Longtude

State Well No.

WCPPA Form 7117/03
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Elevation at top of casing 1791 ft., msl

Solid Casing: (≥ 90% x (Ground Elev.-Water Level Elev))
- Total Length: 1780 ft.
- Nominal Diameter: 24 in.
- Wall Thickness: 375 in.
- Bottom Elevation: 10 ft., msl

Open Casing: ☐ Perforated ☐ Screen
- Total Length: 70 ft.
- Nominal Diameter: 24 in.
- Wall Thickness: 312 in.
- Bottom Elevation: 60 ft.msl

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For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elevation - 41.3 x Water Level Elev) / 4

Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = (2 + 41.3 x 2 / 4) = 18.5 ft.

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more): □ ANSI/WWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
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Note: Neither bentonite nor mud should be used in saturated zone during drilling.
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**TOTAL** $125.00

**DATE:** 12/30/03

**CHECK** 125.00

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