ROUTE SLIP

Well Name: Papaula-Ruben, No. 546-01, Island: Maui
Applicant: Michael Ruben, Landowner: Same
Consultant: Mike Robertson, TMK: 3-8-2:26

Mapped: 28 Jun 96, Logcomp: Logbk
Ch 343 pau: NA, Tent CWRM Action: 18 Sep 96
Fee Depos: 

Acknowledgment:
DoH/Drink Water:
Wastewater:

Comments Recd:

Submittal mailed:
CWRM: Appr: Deny:
Permit/Notice to Appl:
Cond.s routed to Survey:

Sent
Faxed Appl:
Consult:
3rdP:

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<th>HARR 10^6</th>
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FROM: Charley

DATE: 29 June 04

TO:
- BAUER, G.
- GOODING, K
- FUJII, N.
- OHYE, M
- YOSHINAGA, M
- SWANSON, S.
- KUNIMURA, I.
- IMATA, R.
- NAKAMA, L.
- HIGA, D.
- UYENO, D
- MATHIAS, T

INIT.

TO:
- HARDY, R.
- SAKODA, E.
- NAKANO, D.
- IZU, Y.
- DANBARRA, S
- SUBIA, S.
- YODA, K.
- CHING, F.

INIT.

FOR:
- Approval
- Signature
- Information
- File
- Xerox ___ copies
- Take Action:

PLEASE:
- Review & Comment
- Type Draft
- Type Final

___

Please See Me

Toas — this old thing! Managed to bypass your a-t-f PIP issued (cover itv acc, wrk) 20 Mar 98

no survey — now deferred?

I think he's clear now — any need for letters to go out to all parties?

want surveys?
WELL COMPLETION REPORT

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

12/17/97 WCR Form

Part I. Well Construction & Part II. Permanent Pump Installation

Instructions: Please print or type and submit completed report within 60 days after well completion to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. An as-built drawing of the well and chemical analysis should also be submitted. For assistance call the Commission Regulation Branch at 808-587-0225, or 1-800-468-4844 Extension 70225.

10. State Well No.: 5426-01    Well Name: Papa'ula-Ruben    Island: Maui
11. Location/Address: Specklesville, Makawao    Tax Map Key: 3-8-2:26

PART I - WELL CONSTRUCTION REPORT

12. Drilling Company:
13. Name of driller who performed work:
14. Type of rig/construction:
15. Date(s) Well Construction and pump tests (if any) completed:
17. DRILLER'S LOG: Please attach geologic log (if available or if required by permit)

<table>
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<th>Depths (ft.)</th>
<th>Rock Description, Water Level, Dates, etc.</th>
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(If more space is needed, continue on back.)

18. Total depth of well below ground: ft.
19. Hole size: _______ inch dia. from _______ ft. to _______ ft. below ground

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<th>Depths (ft.)</th>
<th>Rock Description, Water Level, Dates, etc.</th>
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</thead>
<tbody>
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20. Casing installed: _______ in. I.D. x _______ in. well solid section to _______ ft. below ground

Casing Material/Slot Size:

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</tbody>
</table>

21. Annulus: Grouted from _______ ft. below ground to _______ ft. below ground

Gravel packed from _______ ft. below ground to _______ ft. below ground

22. Initial water level: _______ ft. below ground. Date and time of measurement: _______
23. Initial chloride: _______ ppm Date and time of sampling: _______
24. Initial temperature: _______ °F Date and time of measurement: _______
25. PUMPING TESTS: Reference Point (R.P.) used: _______ ft. below R.P., which elevation is _______ ft.

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<th>(2) Long-term Aquifer Test Date</th>
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<tr>
<td>End water level _______ ft. below R.P.</td>
<td>End water level _______ ft. below R.P.</td>
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26. Pump Test Procedures data & graphs (12/17/97 SDPTD & CRPTD Forms) attached? Yes __ No __
27. As-built drawings attached? Yes __ No __
28. Other remarks/comments: (On back of this form)

Well Drilling Contractor (print) ____________________________ C-57 Lic. No. ____________________________
Signature ____________________________ Date ____________

Surveyor (print) ____________________________ Lic. No. ____________________________
Signature ____________________________ Date ____________

Applicant (print) ____________________________
Signature ____________________________ Date ____________
**PART II. (PERMANENT) PUMP INSTALLATION REPORT**

30. Name of person performing work: Mike Robertson
31. Date Pump Installation Completed: 5/10/98
32. PUMP INSTALLATION:
   - Pump Type, Make, Serial No.: Sub. Meyers J3080 B
   - Motor type, H.P., Voltage, rpm: Sub. 3 HP 230 V 3450 Rpm
   - Depth of Pump Intake Setting: 24 ft. below wellhead, which elevation is 15 ft.
   - Depth to bottom of pipeline: 24 ft. below wellhead, which elevation is 15 ft.
   - Pumping Head is 200 ft. Type of flow meter: Turbine, which measures in gpm
33. As-built drawings attached? Yes No
34. Other remarks/comments: (See below)

**Pump Installation Contractor (print) Mike Robertson C-57 Lic. No. 2015**

**Signature** Mike Robertson **Date** 5/10/98

**Applicant (print) Michael Ruben**

**Signature** Ruben **Date** 8/4/98

**8. (cont'd) DRILLER’S LOG (cont'd):**

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**Remarks:** 5476-01 PAPA‘ULA - RUBEN
Wailani Drilling Company
Wailani Driving Company

Mike Robertson 655 Kulike Road Haiku, Maui, Hawaii 96708
Ph. 808 572-2673 Fax 572-0925 Cellular 283-8481

May 18 2000 03:22PM 11

Phineas Blowing. 808 572-2673
Fax. 572-0925 Cellular 283-8481

Papaula-Ruben Well State Well #5426-01 Elevation 15 ft. m.s.l.

Static water level
15 ft.

2" open borehole 37 to 46 ft.

ground elevation 14'
top of casing 15'
top of slab 14'6"
reference point - top of casing (15.00)
pump intake setting 24'
w&er level msl (-15' 2")
bottom of hole 46'

*Note: not drawn to scale

CORRECTIONS
MADE
(Originals by mail)
follow up accepted
Mr. Mike Robertson
Wailani Drilling Company
655 Kulik Road
Haiku, Hawaii 96708

Dear Mr. Robertson:

Correction of Well Completion Report
Huelo-Naiditch Well (Well No. 5413-10)

We received your recent fax correcting the dates on the WCR1 & WCR2 for the
captioned well. It appears to be consistent with the facts in the file and with your explanation of
facts. This requires an addendum to the report, that the well was completed in December 1998,
and that therefore no violation occurred. Enclosed is your copy of the Pump Installation Permit.

On separate matters, please note that violations are still outstanding for lack of providing
well completion reports for the following wells:

- Huelo-Lowen Well (Well No. 5413-08)
- Waipio-Hagar Well (Well No. 5413-09)
- Maui Beach Hotel-Well (Well No. 5328-52)

Our submittal on the violations is being prepared for the Commission meeting of June
21, 2000. A copy of the submittal will be sent to you about one week prior.

In addition, we have not yet received a response to our requests for corrections on Well
Completion Report 2 for Paipau-Ruben Well (Well Nu. No. 5120-01) (letter sent April 20,
1998), nor signatures on Well Construction and Pump Installation Permits for Huelo-Baker Well

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

Sincerely,

[Signature]
LINNE L. NISHIOKA
Deputy Director
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<th>DATE: 17 May 01</th>
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**Action:** See Me

Telcon 24 May 01
Ruben WCP
Is there the

who Roger Thorton supposedly

was to give copy to Ruben,
Correction of Well Completion Report
Huelo-Naiditch Well (Well No. 5413-10)

We received your recent fax correcting the dates on the WCR1 & WCR2 for the captioned well. It appears to be consistent with the facts in the file and with your explanation of events. This response corrects, for the record, that the well was completed in September 1998, and that therefore no violation occurred. Enclosed is your copy of the Pump Installation Permit; please sign and return a copy for our files to complete the permitting process for this well.

On separate matters, please note that violations are still outstanding for lack of providing well completion reports for the following wells:

- Huelo-Lowen Well (Well No. 5413-08)
- Waipio-Hagar Well (Well No. 5413-09)
- Maui Beach Hotel Well (Well No. 5328-52)

Our submittal on the violations is being prepared for the Commission meeting of June 21, 2000. A copy of the submittal will be sent to you about one week prior.

In addition, we have not yet received a response to our requests for corrections on Well Completion Report 2 for Papaula-Ruben Well (Well No. No. 5426-01) (letter sent April 20, 1998), nor signatures on Well Construction and Pump Installation Permits for Huelo-Baker Well (Well No. 5413-07) (letter sent July 23, 1999).

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

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

Cl: ss
Mr. Mike Robertson  
Wailani Drilling Company  
655 Kulike Road  
Haiku, Hawaii 96708  

Dear Mr. Robertson:

Outstanding Issues from Permitting

We reviewed the file in preparation for processing the Well Construction and Pump Installation Permit Application for Stephen Klopping. Several matters you can address remain unfinished, and we encourage you to let us know how these matters can be resolved. These wells were constructed a few years ago, and more recent wells have followed the required process more faithfully.

1. **Ruben (Well No. 5426-01)** - the Well Completion Report Part 2 (WCR2) was filed with signatures but had a discrepancy in *borehole diameter* and potentially *conflicting elevations* noted without reference points; letter requesting *correction* went out on April 20, 1998. [By the way, it is not clear from several as-built sections we've received that you understand that static water level is to be recorded relative to mean sea level and measured from a surveyed elevation.]

2. **Baker (Well No. 5413-07)** - letter to driller and permittee requesting signed copies of the Well Construction Permit (WCP) and Pump Installation Permit (PIP) went out on July 23 1999; driller says neither he nor permittee have copies of WCP & PIP. *Copies of WCP and PIP are enclosed for your use.*

3. **Lowen (Well No. 5413-08)** - WCR1 submitted with as-built and pump tests, *WCR2 not filed, as required within 30 days of completing work.*

4. **Hagar (Well No. 5413-09)** - *WCR2 not filed, as required within 30 days of completing work.*

5. **Maui Beach Hotel (Well No. 5328-52)** - WCR1 submitted with as-built and constant-rate pump test; *no step-drawdown pump test nor WCR2 filed, as required within 30 days of completing work.*
These last two items are violations of the Water Code procedures, and we need to go to the Commission for their determination. Please provide as much information as possible on these matters.

We believe you have done as well as possible in correcting incomplete permittee responses, and we will not hold up new applications on that account. However, we cannot process new applications (e.g. the Klopping Well and Kuiaha-Smith Well) without completing the above matters within your primary responsibility. They will be notified accordingly within a week of this letter.

For your information, we have not yet received validated (signed) copies of the Well Construction Permit for the Englehart Well (Well No. 3903-05). We also note that the McDonald Well (Well No. 5741-01) Construction Permit expires May 25, 2000.

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

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

Enclosure
Mr. Mike Robertson  
Wailani Drilling Company  
655 Kūlika Road  
Haikū, HI 96708

Dear Mr. Robertson:

Well Completion Report Part 2  
Papaula-Ruben Well (Well No. 5426-01)

We received your Well Completion Report Part 2 for the Papaula-Ruben Well (Well No. 5426-01) on April 17, 1998, along with the signed Pump Installation Permit. However, matters which must be addressed before we accept your report are as follows:

1. Elevation and location survey documentation must be submitted.

2. The Well Completion Report Part 2 is not completely compatible with the as-built diagram. Please review your files and resubmit forms showing the correct information:

   A. Correct borehole diameter - Part 1 says 12 inches, the as-built says 10 inches;

   B. Surveyed wellhead elevation - the diagram should show a single reference point for all measurements, to grade or to water, accurate to the nearest 0.01 feet, to allow water level measurements to be made accurately to 0.1 feet. Part 1 indicates that grade is "14 feet", top of casing is "15 feet"; Part 2 says the wellhead is at "16 feet". The as-built says that an unspecified "elevation" is "15 feet". Are all three elevations referencing separate points?

3. Measurement accuracy should have been to the nearest 0.01 feet. Please explain why this requirement was not met.

4. Water level - Part 1 indicates that water was initially encountered at "15 feet" below an unspecified point. Static water level is also listed as "15 feet". The well was then drilled to "46 feet" below an unspecified point, where water was again encountered. This seems to say that the water encountered at 15 feet was from a perched layer, which was then sealed off from the well column, and that the source water is confined below 46 feet. However, the well does not appear to reach below that water, and the pump set at "24 feet" below an unspecified point. Is this an artesian source?

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

Sincerely,

EDWIN T. SAKODA  
Acting Deputy Director

Cl: ss  
Attachment
WCR 2 Check for Well No. 5426-01 (survey to regulation memo)

1. **Pump Tests Check**
   - **special condition of PIP? Yes**
   - **No**
   - Glenn Bauer (initial if yes)
   - **Yes**  **No**  **If no, describe deficiency**

   **Step-Drawdown Test:**
   - acceptable  
   - followed WCPI Stds  
   - analysis attached  
   - proposed pump cap o.k.

   **Aquifer Pump Test:**
   - acceptable  
   - followed WCPI Stds  
   - T & S analysis attached

   **Well Interference:**
   - estimated Steady-State drawdown at 1-mile radius is ______ ft.
   - analysis attached

   **Stream Surface Water Impacted:**
   - Yes  
   - No  
   - If yes, identify most probable stream

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

   - data complete  
   - followed WCPI Stds  
   - wellphys.dbf updated  
   - welaplic.dbf updated

   *Also El. Survey From WCR*
**State of Hawaii**  
**COMMISSION ON WATER RESOURCE MANAGEMENT**  
**Department of Land and Natural Resources**

**WELL COMPLETION REPORT**

**10. State Well No.: 5426-01**  
**Well Name:** Papa'ula-Ruben  
**Island:** Maui

### PART I. WELL CONSTRUCTION REPORT

| 12. Drilling Company: |  
| 13. Name of driller who performed work: |  
| 14. Type of rig/construction: |  
| 15. Date(s) Well Construction and pump tests (if any) completed: |  

**16. GROUND ELEVATION** (referenced to mean sea level, msl): 
- Well Bench Mark (description/location): Elevation (msl):
- Depths (ft.)  
  | Rock Description, Water Level, Dates, etc. |  
  |  

(If more space is needed, continue on back)

**17. DRILLER'S LOG:** Please attach geologic log (if available or if required by permit) 
- Depths (ft.) Rock Description, Water Level, Dates, etc.

| 18. Total depth of well below ground: |  
| 19. Hole size: inch dia. from ft. to ft. below ground |  
| 20. Casing installed: in. I.D. x in. wall solid section to ft. below ground |  
| 21. Annulus: Grouted from ft. below ground to ft. below ground |  
| 22. Initial water level: ft. below ground. Date and time of measurement: |  
| 23. Initial chloride: ppm Date and time of sampling: |  
| 24. Initial temperature: °F Date and time of measurement: |  

**25. PUMPING TESTS:** Reference Point (R.P.) used: which elevation is ft.
- (1) Step-Drawdown Test Date 
  | Start water level ft. below R.P. |  
  |  
  | End water level ft. below R.P. |  

(2) Long-term Aquifer Test Date 
- Start water level ft. below R.P.
- End water level ft. below R.P.

**26. Pump Test Procedures data & graphs (12/17/97 SDPTD & CRPTD Forms) attached? Yes No**

**27. As-built drawings attached? Yes No**

**28. Other remarks/comments: (On back of this form)**

**Well Drilling Contractor (print):** Wai'anae Drilling  
**C-57 Lic. No.:** 2015  
**Signature:**  

**Surveyor (print):**  
**Lic. No.:**  
**Signature:**  

**Applicant (print):** MICHAEL RUBEN  
**Date:**  
**Signature:**  
**Date:**  
**(On back of this form)**
PART II. (PERMANENT) PUMP INSTALLATION REPORT

29. Pump Installation Company: Wellisi Drilling

30. Name of person performing work: Mike Robberton

31. Date Pump Installation Completed: 4/11/97

32. PUMP INSTALLATION:
   - Pump Type, Make, Serial No.: Myers Submersible 1881BA250 Capacity: 48 gpm
   - Motor type, H.P., Voltage, rpm: Franklin 3 HP 240V 1850Rpm
   - Depth of Pump Intake Setting 24 ft. below wellhead, which elevation is 16 ft.
   - Depth to bottom of airline 22 ft. below wellhead, which elevation is 16 ft.
   - Pumping Head is 150 ft. Type of flow meter: open pipe which measures in __

33. As-built drawings attached: Yes No

34. Other remarks/comments: (See below)

   Pump Installation Contractor (print) Mike Robberton 6-57 Lic. No. 20115
   Signature \\
   Applicant (print) MICHAEL RUBEN
   Signature \\
   Date 4/14/98

8.(cont'd) DRILLER'S LOG (cont'd):

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19 & 25. Remarks: WELL 5426-01 PAPAULA - RUBEN
Mr. Michael Ruben

Dear Mr. Ruben:

After-the-Fact Pump Installation Permit
Papaula-Ruben Well (Well No. 5426-01)

Enclosed are two (2) originals of your approved Pump Installation Permit for the captioned well(s) which authorizes 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 10:

**Special Conditions**

1. **None**

The well owner is responsible for all conditions of the permit. This includes ensuring that the pump installation contractor, or other party who installs the pump, submits a completed Part II of the Well Completion Report form (enclosed) within sixty (60) days after the pump installation 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.

To validate your pump installation permit, please sign and have the contractor sign both permit originals and return one for our files.

A copy of the Well Completion Report (Part II) and a copy of your water use report form are enclosed for your use. Except for the monthly water use report form, please provide copies of all the information in this packet to your pump installation contractor.

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

If you have any questions, please call the Commission staff at 587-0274 or toll-free at 984-2400 (Maui), extension 70251.

Aloha,

Enclosures

for: Wailani Drilling Company
AFTER-THE-FACT PUMP INSTALLATION PERMIT

Papaula-Ruben Well, Well No. 5426-01

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management’s Administrative Rules, Section 13-162, entitled “Water Use, Wells, and Stream Diversion Works”, this document permits the pump installation for Papaula-Ruben Well (Well No. 5426-01) at Spreckelsville, Makawao, Maui, TMK 3-8-2:26, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

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

2. The pump installation permit shall be for installation of a 50 gpm capacity, or less, pump in the well.

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

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

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

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

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

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

9. If the well is not to be used it must be properly capped. If the well is to be abandoned then the permittee must apply for a well abandonment permit in accordance with §13-168-12(1) prior to any well sealing or plugging work.

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

Date of Approval: March 18, 1998
Expiration Date: March 18, 2000

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day.

Permittee’s Signature: _______________________________ Date: __________

Printed Name: _______________________________ Firm or Title: _______________________________

Installer’s Signature: _______________________________ Date: __________

Printed Name: _______________________________ Firm or Title: _______________________________

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

Attachments

c: USGS
   Department of Health / Safe Drinking Water & Wastewater Branches
   Maui Department of Water Supply
   Wailanl Drilling Company
Mr. Mike Robertson  
Wailani Drilling Company  
655 Kilike Road  
Hāi‘ikū, Hawaii 96708

Dear Mr. Robertson:

After-the-Fact Approval of Pump Installation Permits

At its March 18, 1998 meeting, the Commission on Water Resource Management (Commission) approved these staff recommendations:

1. Permittees and Wailani Drilling Company are in violation of HAR §13-168-12(a) for drilling and installing pumps without valid well construction and pump installation permits. Permit transmittal letters clearly state that the permits are not valid without the signatures of both permittee and driller, and two copies are sent to provide one for return with signatures;

2. Given the good faith efforts of the driller and minimal impacts associated with small domestic wells not in water management areas, times for these violations are waived. This is a one-time waiver; the Commission cannot be expected to waive future violations.

3. The following pump installation permits are approved:

   Waipi‘o-Hagar (Well No. 5413-09)  
   pump capacity: 20 gpm

   Huelo-Hipp (Well No. 5414-01)  
   pump capacity: 20 gpm

   Papa‘ula-Ruben (Well No. 5426-01)  
   pump capacity: 50 gpm

4. By Declaratory Ruling, drillers may install permanent pumps of 0-70 gpm capacity prior to pump testing and issuance of the pump installation permit for combined well construction and pump installation applications not in water management areas, 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.

We still require the signed permit documents for these wells for our files.

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

Sincerely,

EDWIN T. SAKODA  
Acting Deputy Director

Cl:ss

c: Mr. Sam Hagar  
Mr. Gary Hipp  
Mr. Michael Ruben
Mr. Michael Ruben

Dear Mr. Ruben:

After-the-Fact Pump Installation Permit
Papaula-Ruben Well (Well No. 5426-01)

Enclosed are two (2) originals of your approved Pump Installation Permit for the captioned well(s) which authorizes 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 10:

Special Conditions

1. None

The well owner is responsible for all conditions of the permit. This includes ensuring that the pump installation contractor, or other party who installs the pump, submits a completed Part II of the Well Completion Report form (enclosed) within sixty (60) days after the pump installation 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.

To validate your pump installation permit, please sign and have the contractor sign both permit originals and return one for our files.

A copy of the Well Completion Report (Part II) and a copy of your water use report form are enclosed for your use. Except for the monthly water use report form, please provide copies of all the information in this packet to your pump installation contractor.

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

If you have any questions, please call the Commission staff at 587-0274 or toll-free at 984-2400 (Maui), extension 70251.

Aloha,

[Signature]

Chairperson

Enclosures

c: Wailani Drilling Company
AFTER-THE-FACT PUMP INSTALLATION PERMIT

Papaula-Ruben Well, Well No. 5426-01

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management’s Administrative Rules, Section 13-168, entitled “Water Use, Wells, and Stream Diversion Works”, this document permits the pump installation on Papaula-Ruben Well (Well No. 5426-01) at Spreckelsville, Makawao, Maui, TMK 3-8-2:26, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97), and 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 96823 shall be notified, in writing, at least two (2) weeks before any work covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. The pump installation permit shall be for installation of a 50 gpm capacity, or less, pump in the well.

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

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

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

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

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

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

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

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

Date of Approval: March 18, 1998
Expiration Date: March 18, 2000

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day.

Permittee's Signature: 
Date: 4/4/98

Printed Name: MICHAEL RUBEN
Firm or Title: OWNER

Installer's Signature: 
Date: 4/4/98

Printed Name: Mike Robertson
Firm or Title: Wailani Drilling Company

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

Attachments

Department of Health/ Safe Drinking Water & Wastewater Branches
Maui Department of Water Supply
Wailani Drilling Company
STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

March 18, 1998
Honolulu, Oahu

APPLICANT AFTER-THE-FACT PUMP INSTALLATION PERMITS

Applicants:  Well Name (Well No.)  TMK  Capacity  Aquifer System

1. Sam Hagar  Waipi’o-Hagar (5413-09)  2-9-5:50  20 gpm  Honopou
   P.O. Box 5395
   Novato, CA  94948

2. Gary Hipp  Huelo-Hipp (5414-01)  2-9-4:14  20 gpm  Honopou
   SR1 Box 162
   Ha‘ikū, HI  96708

3. Michael Ruben  Papa‘ula-Ruben (5426-01)  3-8-2:26  50 gpm  Kahului

Well Driller: Mike Robertson, dba Wailani Drilling, Inc.
655 Küllike Rd., Ha‘ikū, Maui

LOCATION: See Exhibit 1

BACKGROUND:

October 27, 1997  The well driller filed Well Completion Reports, Part 1 (Well Construction) with pump test results for the three wells indicated above, as is required to support action approving pump installation permit applications. The reports showed that pumps were already installed, in violation of standard condition #2 which clearly states that no permanent pump may be installed prior to issuance of the pump installation permit.

November 25, 1997  Staff review of the Well Completion Reports indicated that the accuracy of water-level measurements was inadequate and possibly erroneous.
ANALYSIS/ISSUES:

The Administrative Rules (HAR § 13-168-12(a)) provides that:

"No well shall be constructed, altered, or repaired and no pump or pumping equipment shall be installed, replaced, or repaired without an appropriate permit from the Commission...The owner of a well shall make an application or cause an application to be made by the driller...."

Standard Condition #2 of a Well Construction Permit states:

"The well construction permit shall be for construction and testing of the well only... No permanent pump may be installed until a pump installation permit is approved and issued by the Commission." (see Exhibit 2)

For all wells, two copies of the permits are sent to the applicant, with instructions to sign both and return one. The transmittal letter states the owner's responsibility for all conditions and is intended to assure that the well driller is made aware of the conditions, particularly the transmittal of the required well completion report. The driller's signature is required to validate the permit. Therefore, staff makes both the applicant and the driller responsible for the terms of the well construction permit. None of the applicants nor the driller signed and returned the well construction permits identified in this submittal. Therefore, drilling was performed without a valid permit from the Commission, in violation of HAR 13-168-12(a).

Communications Experience

Despite the apparently clear language of these permits, the failure of these applicants to comply with several permit conditions has been common. The experience with this particular driller has been instructive. In frequent telephone conversations and subsequent performance, we have a record of the driller's good faith and conscientious efforts to follow the letter of Commission requirements and we have learned to improve the means by which we make these conditions known. To the driller's credit, he has provided the most complete and comprehensive well completion reports (WCR) that staff has reviewed.

The driller has indicated that efficient use of the drilling rig suggests very strongly that the pump should be installed while the rig is still in place. Similarly, the driller's practice has been to install the permanent pump for the purpose of conducting the pump tests, eliminating an extra step of rigging a temporary pump and also providing for a better pump test with a more controllable and quiet electric pump rather than a variable and noisy diesel-powered pump. He has requested a speedy review of pump test results to facilitate a minimal delay in final approval. His practice has been to install variable-speed electric pumps, increasing the flexibility of appropriate pumpage rates. In most cases, the pump tests do not show much, if any, drawdown, indicating that the proposed rates are appropriate.

Risk of Permit Violation

The purpose of the two-phase well construction and pump installation approval is to assure valid pump testing and acceptable well construction reporting prior to final pump installation approval. In the case of small wells with small withdrawal, the risk of overpumpage is minimal except when
several wells are in close proximity. Speedy review of pump tests while rigging equipment is still in place is one way of addressing suspect results in a timely manner, correcting misinformation, and making adjustments to the final-approved capacity while the installer is still on-site.

To further highlight the minimal impacts from smaller wells, the Well Construction and Pump Installation Standards (January 13, 1997) specify that wells with pump capacities under 70 gpm do not require step-drawdown tests but only constant-rate tests.

Given these are relatively small wells, staff is requesting a declaratory ruling that pump installations for withdrawals of 70 gpm, or less, in non-ground water management areas be allowed prior to pump testing and pump installation permit issuance, subject to removal if the testing shows that a smaller pump is required to protect neighboring wells and reduce potential upconing at the applicant’s well site. The final or permanent pump installed will then be identified on the pump installation permit.

**RECOMMENDATION:**

That the Commission:

1. Find both the applicants and the driller under this submittal in violation of HAR 13-168-12(a) for drilling and installing permanent pumps without valid well construction and pump installation permits.

2. Given the good-faith efforts of the driller, waive fines for these violations in 1.

3. Approve the pump installation permits for the following wells, subject to the standard conditions shown in Exhibit 3:

   Waipi‘o-Hagar (Well No. 5413-09)  
   pump capacity: 20 gpm

   Huelo-Hipp (Well No. 5414-01)  
   pump capacity: 20 gpm

   Papa‘ula-Ruben (Well No. 5426-01)  
   pump capacity: 50 gpm

4. Approve a Declaratory Ruling that permanent pump installation for combined well construction and pump installation applications for individual wells in non-groundwater management areas between 0-70 gpm capacity may be allowed prior to pump testing and pump installation permit issuance, 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.

Respectfully submitted,

EDWIN T. SAKODA
Acting Deputy Director

Exhibit(s): 1 (Location Map)  
2 (Sample Well Construction Permit)  
3 (Pump Installation Permits)
APPLICANT AFTER-THE-FACT PUMP INSTALLATION PERMITS

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<th>Applicants</th>
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<th>TMK</th>
<th>Capacity</th>
<th>Aquifer System</th>
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<td>2-9-5:50</td>
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<tr>
<td>2. Gary Hipp</td>
<td>Huelo-Hipp (5414-01)</td>
<td>2-9-4:14</td>
<td>20 gpm</td>
<td>Honopou</td>
</tr>
<tr>
<td>SR1 Box 162</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ha'ikū, HI 96708</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3. Michael Ruben</td>
<td>Papa'ula-Ruben (5426-01)</td>
<td>3-8-2:26</td>
<td>50 gpm</td>
<td>Kahului</td>
</tr>
</tbody>
</table>

*Well Driller: Mike Robertson, dba Wailani Drilling, Inc.*

655 Kūlika Rd., Ha'ikū, Maui

**LOCATION:** See Exhibit 1

**BACKGROUND:**

- **October 27, 1997**: The well driller filed Well Completion Reports, Part 1 (Well Construction) with pump test results for the three wells indicated above, as is required to support action approving pump installation permit applications. The reports showed that pumps were already installed, in violation of standard condition #2 which clearly states that no permanent pump may be installed prior to issuance of the pump installation permit.

- **November 25, 1997**: Staff review of the Well Completion Reports indicated that the accuracy of water-level measurements was inadequate and possibly erroneous.
ANALYSIS/ISSUES:

The Administrative Rules (HAR § 13-168-12(a)) provides that:

"No well shall be constructed, altered, or repaired and no pump or pumping equipment shall be installed, replaced, or repaired without an appropriate permit from the Commission... The owner of a well shall make an application or cause an application to be made by the driller..."

Standard Condition #2 of a Well Construction Permit states:

"The well construction permit shall be for construction and testing of the well only... No permanent pump may be installed until a pump installation permit is approved and issued by the Commission." (see Exhibit 2)

For all wells, two copies of the permits are sent to the applicant, with instructions to sign both and return one. The transmittal letter states the owner’s responsibility for all conditions and is intended to assure that the well driller is made aware of the conditions, particularly the transmittal of the required well completion report. The driller’s signature is required to validate the permit. Therefore, staff makes both the applicant and the driller responsible for the terms of the well construction permit. None of the applicants nor the driller signed and returned the well construction permits identified in this submittal. Therefore, drilling was performed without a valid permit from the Commission, in violation of HAR 13-168-12(a).

Communications Experience

Despite the apparently clear language of these permits, the failure of these applicants to comply with several permit conditions has been common. The experience with this particular driller has been instructive. In frequent telephone conversations and subsequent performance, we have a record of the driller’s good faith and conscientious efforts to follow the letter of Commission requirements and we have learned to improve the means by which we make these conditions known. To the driller’s credit, he has provided the most complete and comprehensive well completion reports (WCR) that staff has reviewed.

The driller has indicated that efficient use of the drilling rig suggests very strongly that the pump should be installed while the rig is still in place. Similarly, the driller’s practice has been to install the permanent pump for the purpose of conducting the pump tests, eliminating an extra step of rigging a temporary pump and also providing for a better pump test with a more controllable and quiet electric pump rather than a variable and noisy diesel-powered pump. He has requested a speedy review of pump test results to facilitate a minimal delay in final approval. His practice has been to install variable-speed electric pumps, increasing the flexibility of appropriate pumpage rates. In most cases, the pump tests do not show much, if any, drawdown, indicating that the proposed rates are appropriate.

Risk of Permit Violation

The purpose of the two-phase well construction and pump installation approval is to assure valid pump testing and acceptable well construction reporting prior to final pump installation approval. In the case of small wells with small withdrawal, the risk of overpumpage is minimal except when
several wells are in close proximity. Speedy review of pump tests while rigging equipment is still in place is one way of addressing suspect results in a timely manner, correcting misinformation, and making adjustments to the final-approved capacity while the installer is still on-site.

To further highlight the minimal impacts from smaller wells, the Well Construction and Pump Installation Standards (January 13, 1997) specify that wells with pump capacities under 70 gpm do not require step-drawdown tests but only constant-rate tests.

Given these are relatively small wells, staff is requesting a declaratory ruling that pump installations for withdrawals of 70 gpm, or less, in non-ground water management areas be allowed prior to pump testing and pump installation permit issuance, subject to removal if the testing shows that a smaller pump is required to protect neighboring wells and reduce potential upconing at the applicant's well site. The final or permanent pump installed will then be identified on the pump installation permit.

RECOMMENDATION:

That the Commission:

1. Find both the applicants and the driller under this submittal in violation of HAR 13-168-12(a) for drilling and installing permanent pumps without valid well construction and pump installation permits.

2. Given the good-faith efforts of the driller, waive fines for these violations in 1.

3. Approve the pump installation permits for the following wells, subject to the standard conditions shown in Exhibit 3:

   Waipi'o-Hagar (Well No. 5413-09) pump capacity: 20 gpm
   Huelo-Hipp (Well No. 5414-01) pump capacity: 20 gpm
   Papa'ula-Ruben (Well No. 5426-01) pump capacity: 50 gpm

4. Approve a Declaratory Ruling that permanent pump installation for combined well construction and pump installation applications for individual wells in non-groundwater management areas between 0-70 gpm capacity may be allowed prior to pump testing and pump installation permit issuance, 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.

Respectfully submitted,

EDWIN T. SAKODA
Acting Deputy Director

Exhibit(s): 1 (Location Map)
            2 (Sample Well Construction Permit)
            3 (Pump Installation Permits)
# WCR 1 Check for Well No. 52-6-01  
(survey to regulation memo)

## 1. Pump Tests Check

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<tr>
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<td><strong>No</strong></td>
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<td>Step-Drawdown Test:</td>
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<td>acceptable</td>
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<tr>
<td>followed WCPI Stds</td>
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<tr>
<td>analysis attached</td>
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<td>proposed pump cap o.k.</td>
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<tr>
<td>Aquifer Pump Test:</td>
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<td>acceptable</td>
<td>☐</td>
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<td>followed WCPI Stds</td>
<td>☐</td>
</tr>
<tr>
<td>T &amp; S analysis attached</td>
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Well Interference:
- estimated Steady-State drawdown at 1-mile radius is ____ ft.
- analysis attached ☐ ☐

Stream Surface Water Impacted:
- ☐ ☐

## 2. Construction Check

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<tr>
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<tr>
<td>welaplic.dbf updated</td>
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</table>

- No. 1 Well Permanent Pump is installed. (CPF)
- IL. NeHS MVE CAVER 1
Charles, I gotippo, Hogan signatures & corrected elevations. Carter is signing. Lowers will do a power of attorney affidavit and sending it in herself.
Ruben is in Spain and will be back in 2 or 3 weeks but he signed the fax copy I sent him.

Hope this clears everything up.

Well, completion on Main Control and wells coming to you this week.

Thanks,
Mike Peterson
WELL COMPLETION REPORT

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

RECEIVED
97 JUN-31 8:04

WELL CONSTRUCTION REPORT

1. State Well No.: 542601
   Well Name: Wailani
   Island: Maui

2. Location/Address: 100 Stable Rd, Sprinkleville

PART I

4. Name of driller who performed work: Mike Robertson
5. Type of rig/construction: Air-Mud-Rotor
6. Date(s) Well Construction and pump tests (if any) completed: 6/25/97
7. GROUND ELEVATION (referenced to mean sea level, msl): 15 ft
   Well Bench Mark (description/footage): boundary fin: 14 ft
8. DRILLER'S LOG: Please attach geology log (if available or if required by permit)
   Depth (ft) Rock Description, Water Level, Dates, etc.
   0 to 11 Sand - (loose) 20 to 24 Sand
   15 to 20 Hard Coral 25 to 27 Bluerock

9. Total depth of well below ground: 46 ft
10. Hole size:
    12" inch dia. from 0 ft to 46 ft below ground
    12" inch dia. from 46 ft to 75 ft below ground
    12" inch dia. from 75 ft to 110 ft below ground

11. Casing installed: 6 in. I.D. x 25 in. wall solid section to 37 ft below ground
    Casing Material/Make Date: Sept 1997

12. Annulus:
    Gravel packed from 0 ft below ground to 37 ft below ground

13. Initial water level: 15 ft below ground
14. Initial chlorides: 790 ppm
15. Initial temperature: 70°F
16. PUMPING TESTS: Reference Point (R.P.) used: Top of Casing, which elevation is 15 ft
   (1) Step-Drawdown Test Date: 6/25/97
      Start water level: 15 ft below R.P.
      End water level: 15 ft below R.P.
   (2) Long-term Aquifer Test Date: 6/25/97
      Start water level: 15 ft below R.P.
      End water level: 15 ft below R.P.

17. Aquifer Pump Test Procedures data & graphs (1/8/96 LTAT Form) attached? Yes No
18. As-built drawings attached? Yes No
19. Other remarks/comments: (On back of this form)

Well Drilling Contractor (print) Mike Robertson
Signature

Surveyor (print) I.D. No. 5-20115

Date: 7/1/97

Glen correspondence
Mr. Michael Ruben

Dear Mr. Ruben:

Well Completion Report for Well No. 5426-01

We have received your Well Completion Report Part I & II for the Papaula-Ruben Well (Well No. 5426-01). However, matters which must be addressed before we accept your report as complete are as follows:

1. The driller must correct the elevations indicated to show the wellhead above ground.

2. You must sign the form. The form has been returned to the driller, who will forward it to you.

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

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

Sincerely,

RAE M. LOUI
Deputy Director

Cl:ss

c: Mike Robertson, Wailani Drilling
Mr. Mike Robertson  
Wailani Drilling  
655 Kūlike Road  
Haikū, Hawaii 96708  

Dear Mr. Robertson:  

Well Completion Reports for  
Waipio-Hagar Well (Well No. 5413-09)  
Papaula-Ruben Well (Well No. 5426-01)  
Huelo-Lowen Well (Well No. 5413-08)  
Huelo-Hipp Well (Well No. 5414-01)  

We are returning Well Completion Reports (both Parts I & II) for the captioned wells, as we cannot accept them as complete without the applicants' signature. We appreciate your difficulty in getting signatures from clients who are often of-island and out-of-state while still submitting completion reports in timely fashion. We suggest sending us a copy of the completed form while you seek the applicants' signatures in the future.  

The pump data support installation of the permanent pumps, and we will issue the Pump Installation Permits upon receipt of the signed Well Completion reports. The applicants are being notified separately (copies enclosed).  

Thank you also for sending notice of commencing work on the Kaupakula-Joachim Well (Well No. 5517-01), and the new applications for Kurt Ulmer and Naomi Brundage.  

Please also correct an item on the Well Completion Report form: the top of the well casing is the preferred bench mark for taking measurements; we would expect it to be about one foot above ground elevation. All four reports indicate that the bench mark is below ground. Further, in the case of the Hagar Well, the ground water level is indicated below sea level. Please verify this water level.  

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

Sincerely,  

[Signature]  

RAE M. LOUI  
Deputy Director  

Cl:ss  
Enclosures
**WELL COMPLETION REPORT**

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

**(Check Appropriate Box)**
- [ ] Well Construction
- [ ] (Permanent) Pump Installation

**InSTRUCTIONS:** Please print or type and submit completed report within 30 days after well completion to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. An as-built drawing of the well and chemical analysis should also be submitted. For assistance call the Commission Regulation Branch at 587-0225, or 1-800-468-4644 Extension 70225.

1. **State Well No.:** S42041  
   **Well Name:**  
   **Island:** Maui

2. **Location/Address:** 600 Stable Rd. Sprinklesville  
   **Tax Map Key:** 3-8-2-46

**PART I. WELL CONSTRUCTION REPORT**

3. **Drilling Company:** Wailuku Drilling Co.  
4. **Name of driller who performed work:** Mike Robertson  
5. **Type of rig/construction:** Air-Mud-Rotary

6. **Date(s) Well Construction and pump tests (if any) completed:** 6/25/97

7. **GROUND ELEVATION** (referred to mean sea level, msl):
   - Well Bench Mark (description/location): boundary pin
   - Elevation(msl): 14 ft.

8. **DRILLER'S LOG:** Please attach geologic log (if available) or if required by permit

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, Dates, etc.</th>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, Dates, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 11</td>
<td>Sand -(loose)</td>
<td>23 to 24</td>
<td>Sand</td>
</tr>
<tr>
<td>12 to 22</td>
<td>Hard Coral</td>
<td>25 to 37</td>
<td>Blue rock</td>
</tr>
</tbody>
</table>

9. **Total depth of well below ground:** 46 ft.

10. **Hole size:**
   - 12 inch dia. from 0 ft. to 46 ft. below ground
   - 12 inch dia. from 0 ft. to 46 ft. below ground
   - 12 inch dia. from 0 ft. to 46 ft. below ground

11. **Casing installed:**
   - 6 in. I.D. x 12 ft. wall solid section to 37 ft. below ground
   - 6 in. I.D. x 12 ft. wall perforated section to 37 ft. below ground

**Casing Material/Slot Size:** Open Hole below Casing

12. **Annulus:**
   - Grouted from 0 ft. below ground to 37 ft. below ground
   - Gravel packed from 0 ft. below ground to 37 ft. below ground

13. **Initial water level:** 15 ft. below ground.

14. **Initial chloride:** 700 ppm

15. **Initial temperature:** 70°F

16. **PUMPING TESTS:** Reference Point (R.P.) used: Top of Casing, which elevation is 15 ft.

   1. Step-Drawdown Test Date 6/25/97
   2. Long-term Aquifer Test Date 6/25/97

   **Start water level** 15 ft. below R.P.
   **Start water level** 15 ft. below R.P.
   **End water level** 15 ft. below R.P.
   **End water level** 15 ft. below R.P.

17. **Aquifer Pump Test Procedures data & graphs (1/29/96 LTAT Form) attached? **Yes **No

18. **As-built drawings attached?** Yes No

19. **Other remarks/comments:** (On back of this form)

**Well Drilling Contractor (print)** Mike Robertson  
**C-57 Lic. No.:** C-20115  
**Signature:** Mike Robertson  
**Date:** 7/1/97

**Surveyor (print)**  
**Lic. No.:**  
**Signature:**  
**Date:**

**Applicant (print):**  
**Signature:**  
**Date:**
PART II. (PERMANENT) PUMP INSTALLATION REPORT

20. Pump Installation Company: ________________________________

21. Name of person performing work: __________________________

22. Date Pump Installation Completed: _________________________

23. PUMP INSTALLATION:
   Pump Type, Make, Serial No.: ________________________________
   Capacity: __________ gpm
   Motor type, H.P., Voltage, rpm: _____________________________
   Depth of Pump Intake Setting __________ ft. below __________, which elevation is __________ ft.
   Depth to bottom of airline __________ ft. below __________, which elevation is __________ ft.
   Pumping Head is __________ ft. Type of flow meter: __________ which measures in __________

24. As-built drawings attached? _Yes _No

25. Other remarks/comments: (See below)

Pump Installation Contractor (print) __________________________
C-57 Lic. No. __________
Signature __________________________ Date __________

Applicant (print) __________________________
Signature __________________________ Date __________

8.(cont'd) DRILLER'S LOG (cont'd):

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<th>Dates (ft.)</th>
<th>Water Level (ft.)</th>
<th>Rock Description, Remarks</th>
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<td>Pahoe hor + Water</td>
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<tr>
<td>36 to 45</td>
<td>Blue rock</td>
<td></td>
</tr>
</tbody>
</table>


________________________________________
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________________________________________
________________________________________
**WELL COMPLETION REPORT**

3/20/96 WCR Form

<table>
<thead>
<tr>
<th>Part</th>
<th>Details</th>
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</table>
| **1.** | State Well No.: 542601  
Well Name: [blank]  
Island: Maui |
| **2.** | Location/Address: 600 Stable Rd Sprecklesville  
Tax Map Key: 3-S-3-26 |
| **3.** | Drilling Company: Waialani Drilling Co |
| **4.** | Name of driller who performed work: Mike Robertson |
| **5.** | Type of rig/construction: Air-Mud-Rotary |
| **6.** | Date(s) Well Construction and pump tests (if any) completed: 01/23/97 |
| **7.** | GROUND ELEVATION (referenced to mean sea level, msl): 15 ft  
Well Bench Mark (description/location): boundary fin |
| **8.** | DRILLER'S LOG: Please attach geologic log (if available or if required by permit)  
| | Depths (ft.) | Rock Description, Water Level, Dates, etc. | Depths (ft.) | Rock Description, Water Level, Dates, etc. |
| | 0 to 11 | Sand (loose) | 23 to 24 | Sand |
| | 18 to 22 | Hard Coral | 25 to 8 | Bluerock |
| **9.** | Total depth of well below ground: 46 ft |
| **10.** | Hole size:  
12 inch dia. from 0 ft. to 46 ft. below ground  
12 inch dia. from 0 ft. to 46 ft. below ground  
12 inch dia. from 46 ft. to 46 ft. below ground |
| **11.** | Casing installed:  
6 in. I.D. x 125 in. wall solid section to 37 ft. below ground |
| |  
Casing Material/Slot Size: Open Hole below casing |
| **12.** | Annulus:  
Grouted from 0 ft. below ground to 37 ft. below ground  
Gravel packed from 0 ft. below ground to 37 ft. below ground |
| **13.** | Initial water level: 15 ft. below ground  
Date and time of measurement: 01/23/97 |
| **14.** | Initial chloride: 70 ppm  
Date and time of sampling: |
| **15.** | Initial temperature: 70 °F  
Date and time of measurement: |
| **16.** | PUMPING TESTS: Reference Point (R.P.) used: Top of casing, which elevation is 15 ft  
(1) Step-Drawdown Test Date AEA  
Start water level ft. below R.P.  
End water level ft. below R.P. |
| | (2) Long-term Aquifer Test Date 01/23/97  
Start water level 15 ft. below R.P.  
End water level 15 ft. below R.P. |
| **17.** | Aquifer Pump Test Procedures data & graphs (19/96 LTAT Form) attached? Yes No |
| **18.** | As-built drawings attached? Yes No |
| **19.** | Other remarks/comments: (On back of this form) |

**Well Drilling Contractor (print)**  
Mike Robertson  
C-57 Lic. No.  6-20115  
Signature  
Mike Robertson  
Date 7/1/97  
Surveyor (print)  
Signature  
Date  
Applicant (print)  
Signature  
following page
LONG-TERM AQUIFER TEST DATA

Pumped Well No. 5426-01 Observation well no.
Pumped Well Name Pueblo Rubin Distance between Obs. & Pumped Well ______ ft.
Target Q 80 gpm Reference pt. for depth to water ______ ft. msl

Water level measurements by: ☑ steel tape ☐ pressure transducer ☐ airline

START TEST Date: 06/25/97 Hour of day: 8:00 AM

Flow Meter Reading Start: 0 gals

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<th>Suggested elapsed time (min)</th>
<th>Actual elapsed time (min)</th>
<th>Depth to water (nearest 0.01 ft)</th>
<th>Drawdown (unadjusted to nearest 0.01 ft)</th>
<th>Pumping rate Q (gpm)</th>
<th>EC (μmhos)</th>
<th>Cl- (mg/l)</th>
<th>Temp. °F or °C</th>
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☑ Pumped Well
☐ Observation Well
Remarks

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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
Flow meter reading at end of pumped period: 38410 gals
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**Data in this table is for:**
- Pumped Well
- Observation Well

**Remarks**
- **Start recovery**
- **Complete recovery**
- **In 2 minutes**

**END TEST** Date: **6/25/97** Hour of day: **4:10 PM**

**ADDITIONAL REMARKS:**

**Person in charge of pump test (print):** Mike Robertson

**Signature:** Mike Robertson

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 aquifer test.

CWRM LTAT Form 1/9/96
Ruben Well # 5426-01
Mr. Michael Ruben

Dear Mr. Ruben:

Well Construction Permit
Papaula-Ruben Well (Well No. 3426-01)

Enclosed are two (2) copies of your approved Well Construction Permit for the captioned well(s). As part of the Commission’s approval, the following special conditions were added and are part of your permit under Standard Permit Condition 10:

**Special Conditions**

1. No permanent monitor tube is required.
2. The long-term continuous test shall be at least 8 hours.
3. No step-drawdown test is required.
4. The well should not be used for drinking water unless it is properly tested and treated.
5. If potable water is used to supply both domestic and irrigation purposes in a single system, the permittee 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.

Please sign the permit copies and return one for our files. A copy of the aquifer pump test procedure and a copy of the well completion report are also included for your use.

If you have any questions, please call Rae M. Loui, Deputy Director, at 587-0214 or toll-free at 984-2400, extension 70214.

Aloha,

MICHAEL D. WILSON
Chairperson

Enclosures
WELL CONSTRUCTION PERMIT
Papaula-Ruben Well (Well No. 5426-01)

In accordance with Department of Land and Natural Resources Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of Papaula-Ruben Well (Well No. 5426-01) at Spreckelsville, Kahanu, Maui, TMK 3-6-2.26, subject to the following conditions:

STANDARD PERMIT CONDITIONS

1. The Commission on Water Resource Management, P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, before any work by this permit commences.

2. The well construction permit shall be for construction and testing of the well only. A minimum one-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Commission, to accurately record water levels. The permittee shall coordinate with the Commission and conduct a pumping test in accordance with the attached Aquifer Pump Testing Procedure. The permittee shall submit to the Commission 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 Commission.

3. 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.

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

5. 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.

6. The following shall be submitted to the Commission within thirty (30) days after completion of work:
   a. Well completion report (Part I, attached).
   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 water quality data.

7. The permittee shall comply with all applicable laws, rules, and ordinances.

8. The well construction permit application and staff submittal approved by the Commission at its September 11, 1996 meeting are incorporated into the permit by reference.

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

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

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

Date of Approval: 09/11/96
Expiration Date: 09/11/98

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.

Applicant's Signature: ___________________________ Date: __________________
Printed Name: ___________________________ Firm or Title: ___________________________

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

Attachment
  c: USGS
    Department of Health, Safe Drinking Water and Wastewater Branches
    Maui Board of Water Supply
APPLICANT: Michael Ruben

LANDOWNER: same

DESCRIPTION Location: (see Exhibit 1) Dimensions: (see Exhibit 2)


BACKGROUND The application for this well was accepted as complete on July 29, 1996.

ISSUES/ANALYSIS Agency Review: The application was published in the Commission’s Water Resource Bulletin in 1996. Review letters were sent to the Department of Health’s Safe Drinking Water and Wastewater Branches. The Safe Drinking Water Branch recommends that potable water wells such as this one not requiring Department of Health approval be tested for bacteriological and chemical presence and be routinely monitored thereafter. In similar situations, that Branch has also specified that potable and irrigation applications using the same source be equipped to prevent backflow from non-potable to potable systems, and labelled to prevent inadvertent consumption of non-potable water.
Staff Submittal

Staff review: The proposed well would tap fresh basal ground water. Proposed use is approximately 5000 gallons per day. There are two old Me-Bray wells indicated at about one-half and one mile, respectively. No adverse impacts are expected.

RECOMMENDATION:

A. That the Commission approve the issuance of a well construction/pump installation permit for Papaula-Ruben Well, subject to the standard permit conditions in Exhibit 3 and the following special conditions:

1. No permanent monitor tube is required.
2. The long-term continuous test shall be at least 8 hours.
3. No step-drawdown test is required.
4. The well should not be used for drinking water unless it is properly tested and treated.
5. If potable water is used to supply both domestic and irrigation purposes in a single system, the permittee 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.

B. That the Commission authorize the Chairperson to approve and issue a pump installation permit for a pump capacity supported by information provided in the Well Completion Report (Exhibit 5) using acceptable aquifer pumping test results required in Condition 6e (Exhibit 3), subject to the standard permit conditions in Exhibit 4.

Respectfully submitted,

RAE M. LOUI
Deputy Director

Exhibits:
1 - (Location Map)
2 - (Well Cross-section)
3 - (Standard Well Construction Conditions)
4 - (Standard Pump Installation Conditions)
5 - (Well Completion Report Form)
6 - (Pump Test Procedures)
7 - (Water Use Report Form)

APPROVED FOR SUBMITTAL:

MICHAEL D. WILSON, Chairperson

Presentation of Submittal: Mr. Charley Ice

Staff Recommendation:

Staff requested that the recommendation be amended as follows:

A. That the Commission approve the issuance of a well construction permit for Papaula-Ruben Well, subject to the standard permit conditions in Exhibit 3 and the following special conditions:

1. No permanent monitor tube is required.
2. The long-term continuous test shall be at least 8 hours.
3. No step-drawdown test is required.
4. The well should not be used for drinking water unless it is properly tested and treated.
5. If potable water is used to supply both domestic and irrigation purposes in a single system, the permittee 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.

B. That the Commission authorize the Chairperson to approve and issue a pump installation permit for a pump capacity supported by information provided in the Well Completion Report (Exhibit 5) using acceptable aquifer pumping test results required in Condition 6e (Exhibit 3), subject to the standard permit conditions in Exhibit 4.

Motion: (NoBriga/Cox)

To approve staff's recommendation as amended.

Unanimously approved as amended.
COUNSEL: Mr. William Tam

OTHERS:

Jim Anthony  Sterling H. Morikawa  Francis H. Nishioka
Jeff Dinsmore  Norman K. Janicki, Jr.  Mark Bennett
Doug Appleton  Steve Lane  Moses Haia
Van Ohumukini  William Mieke  Stephen Thomas
Garrick Iwamuro  Doug Ing  R. Kanna
Nic Musico  Warren Iwasa  Jace McQuivey
George Hiu  Anna Hoover  Bill Paty

All written testimonies submitted at the meeting are filed in the Commission office and are available for review by interested parties. The items were not taken in the order posted on the agenda.

AGENDA 1  (Agenda 1, Items # 1-7 and 9 were heard after Agenda 2.)

ITEM 1.  MINUTES OF THE JULY 17, 1996 AND AUGUST 14, 1996 MEETINGS

MOTION: (COX/NOBРИGA)

To approve the minutes.

UNANIMOUSLY APPROVED.

MOTION: (NOBRIGA/COX)

To approve staff's recommendation C.

UNANIMOUSLY APPROVED.

ITEM 6.  PETER WALDAU, APPLICATION FOR WELL PERMITS, MOLOAA
WELL (WELL NO. 1120-22): WELL CONSTRUCTION: 6 INCH
TO: Honorable Lawrence Miike, Director
Department of Health
Attention: Dennis Tulang, Wastewater Branch
William Wong, Safe Drinking Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application for Papaula-Ruben Well (Well No. 5426-01)

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

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by August 15, 1996.

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

RESPONSE: [ ] We have no comments
[ ] Comments attached

Contact Person: William Wong
Phone: 

Signed: Helen Ohana
Date: 8/15/96
TO: Honorable Lawrence Miike, Director
Department of Health
Attention: Dennis Tulang, Wastewater Branch
William Wong, Safe Drinking Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application for Papaula-Ruben Well (Well No. 5426-01)

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

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by August 15, 1996.

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

RESPONSE: ☑ We have no comments
( ) Comments attached

Contact Person: Lori N. Kajiwara Phone: 586-4294

Signed: Lori N. Kajiwara Date: 8/13/96
Mr. Michael Ruben

Dear Mr. Ruben:

Well Construction/Pump Installation Permit Application for Papaula-Ruben Well (Well No. 5426-01)

We accepted your application for the captioned well on July 29, 1996, and hereby acknowledge that it is complete. You can expect your application to be processed for action within ninety (90) days from that acceptance date.

If you have any questions about your application, please contact Charley Ice of the Commission staff at 587-0251 or toll-free at 974-4000, extension 70251.

Sincerely,

[Signature]

RAE M. LOUI
Deputy Director

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

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

SUBJECT: Well Construction/Pump Installation Permit Application for Papaula-Ruben Well (Well No. 5426-01)

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RESPONSE: ( ) We have no comments  
( ) Comments attached

Contact Person: ___________________ Phone: ______________

Signed: ___________________ Date: ___________________
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**DEPARTMENT OF LAND AND NATURAL RESOURCES**

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**MARKS:**

LINE (1) Well No. 5426-01 (WCP/PIP)  
LINE (2)  
LINE (3)  
LINE (4)  

**NAME/DESCRIPTION (WANG INPUT):**  
Michael Ruben

**MEMO:**  
KHONOLILI BRANCH  
KAPAA, HAWAI 88732

**BANK OF HAWAII**

**MEMO:**

**SIGNATURE:**

**DATE:** 6-22-96

**MONEY ORDER**

TO THE ORDER OF:  
Loomis, of Water Resources  

Twenty Five dollars only $25.00

BANK OF HAWAII  
KAPOLEI BRANCH  
KAPOLEI, HAWAI 96792

**MEMO:**

**SIGNATURE:**

**DATE:** 6-22-96
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<th>FROM: Charley</th>
<th>DATE: 29 July 96</th>
<th>SUSPENSE DATE:</th>
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<td>INIT:</td>
<td>TO: LOUI, R.</td>
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</table>

Sue please make file, dep check

We can accept WCP/RMA for appllers, but we have to follow up with this driller:

1. failure to notify start date
2. [Comment about this contractor also filed WCP/RMA surveyor info for other wells (Bill type, is responsible for WKC.)]
3. We need a follow up letter to the 7/9 letter to Mr. Robertson about WCP/RMA after this letter gets out.
To: Rae M. Loui  
Deputy director Commission On Water Resource Management

From: Mike Robertson  
d.b.a. Wailani Drilling Co.

In response to your letter dated July 9, 1996, the answer to the 4 items on the Papaula-Rubin Well #5426-01 are:  
#1. ground elevation - 5 ft.  
#2. total depth of well - 20 ft.  
#3. proposed pump capacity 50 g. p. m.  
#4 proposed withdrawal 5000 g. p. d.

Sorry I neglected to include all of the information.

In regards to the delinquent Well completion reports and start work notices, Please excuse the untimely filing of these reports. Now that I have your report forms in my computer, I will be able to process them on time from now on.

Enclosed are reports for 
Peahi - Phillips Well (5415-02) 
Peahi - Trier Well (5415-03)  
Huelo - Gould Well (5415-09) 

Peahi - Wilson and Huelo - Harold have not secured all of the funds to proceed with their wells yet but please keep their permits active.

I proceeded on Kipahulu - Nicoll well # 3904-06 and will be sending a completion report soon.

Enclosed also are 2 more Permit applications.

Thank you for your understanding and cooperation.

Sincerely,

Mike Robertson
Mike Robertson 655 Kulike Road Haiku, Maui, Hawaii 96708 Michael Ruben Well Log
Ph. 808 572-2673 Fax 572-0925 Cellular 283-8481
drawing* 7/1/96
Papaula-Ruben Well State Well- #5426-01 Elevation 15 ft. m.s.l.

Static water level 15 ft.

*Note: not drawn to scale
Static water level 15 ft.

*Note: not drawn to scale
STANDARD WELL CONSTRUCTION PERMIT CONDITIONS

1. The Commission on Water Resource Management, P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, before any work by this permit commences.

2. The well construction permit shall be for construction and testing of the well only. A minimum one-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Commission, to accurately record water levels. The permittee shall coordinate with the Commission and conduct a pumping test in accordance with the attached Aquifer Pump Testing Procedure (Exhibit 6). The permittee shall submit to the Commission 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 Commission.

3. 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.

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

5. 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.

6. The following shall be submitted to the Commission within thirty (30) days after completion of work:
   a. Well completion report (attached, Exhibit 5, Part I).
   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 water quality data.

7. The permittee shall comply with all applicable laws, rules, and ordinances.

8. The well construction permit application and staff submittal approved by the Commission at its September 11, 1996 meeting are incorporated into the permit by reference.

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

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

11. Special conditions in the attached cover transmittal letter are incorporated herein by reference.
STANDARD PUMP INSTALLATION PERMIT CONDITIONS

1. The Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, before any work covered by this permit commences.

2. The pump installation permit shall be for installation of a 50 gpm capacity, or less, pump in the well.

3. The permittee shall provide and maintain an approved meter or other appropriate means for measuring and reporting withdrawals and water levels, and appropriate devices or means for measuring chlorides and temperature. These data shall be measured and report to the Commission on a yearly basis, on forms provided by the Commission (Exhibit 7).

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

5. The permittee shall complete and submit as-built drawings and Part II (Permanent) Pump Installation Report of the Well Completion Report (Exhibit 5) to the Commission within thirty (30) days after completion of work.

6. The applicant shall comply with all applicable laws, rules, and ordinances.

7. The pump installation permit application and staff submittal approved by the Commission at its September 11, 1996 meeting are incorporated into the permit by reference.

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

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

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

(Check Appropriate Box) □ Well Construction □ (Permanent) Pump Installation

Instructions: Please print or type and submit completed report within 30 days after well completion to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. An as-built drawing of the well and chemical analysis should also be submitted. For assistance call the Commission Regulation Branch at 587-0225, or 1-800-468-4644 Extension 70225.

1. State Well No.: ___________ Well Name: ___________ Island: ___________
2. Location/Address: ___________ Tax Map Key: ___________

PART I. WELL CONSTRUCTION REPORT

3. Drilling Company: ___________
4. Name of driller who performed work: ___________
5. Type of rig/construction: ___________
6. Date(s) Well Construction and pump tests (if any) completed: ___________
7. GROUND ELEVATION (referenced to mean sea level, msl): ______ ft.
   Well Bench Mark (description/location): ___________
   Elevation(msl): ______ ft.
8. DRILLER'S LOG: Please attach geologic log (if available or if required by permit)
   Depths (ft.) Rock Description, Water Level, Dates, etc. Depths (ft.) Rock Description, Water Level, Dates, etc.
   ___________ to ___________ ___________ to ___________ (If more space is needed, continue on back.)
9. Total depth of well below ground: ______ ft.
10. Hole size: ___________ inch dia. from ___________ ft. to ___________ ft. below ground
    ___________ inch dia. from ___________ ft. to ___________ ft. below ground
    ___________ inch dia. from ___________ ft. to ___________ ft. below ground
11. Casing installed: ___________ in. I.D. x ___________ in. wall solid section to ___________ ft. below ground
    Casing Material/Slot Size: ___________
    Grouted from ___________ ft. below ground to ___________ ft. below ground
    Gravel packed from ___________ ft. below ground to ___________ ft. below ground
12. Annulus: ___________
13. Initial water level: ______ ft. below ground. Date and time of measurement: ___________
14. Initial chloride: ______ ppm Date and time of sampling: ___________
15. Initial temperature: ______ °F Date and time of measurement: ___________
16. PUMPING TESTS: Reference Point (R.P.) used: ___________, which elevation is ______ ft.
   (1) Step-Drawdown Test Date ___________, R.P. ___________. Start water level ___________ ft. below R.P.
   End water level ___________ ft. below R.P. Start water level ___________ ft. below R.P.
   End water level ___________ ft. below R.P.
17. Aquifer Pump Test Procedures data & graphs (1/9/96 LTAT Form) attached? Yes No
18. As-built drawings attached? Yes No
19. Other remarks/comments: ___________

Well Drilling Contractor (print) ___________ C-57 Lic. No. ___________
Signature ___________ Date ___________
Surveyor (print) ___________ Lic. No. ___________
Signature ___________ Date ___________
Applicant (print) ___________
Signature ___________ Date ___________

EXHIBIT 5
PART II. (PERMANENT) PUMP INSTALLATION REPORT

20. Pump Installation Company: ________________________________
21. Name of person performing work: ____________________________
22. Date Pump Installation Completed: __________________________

23. PUMP INSTALLATION:
   Pump Type, Make, Serial No.: ________________________________
   Capacity: _______ gpm
   Motor type, H.P., Voltage, rpm: ______________________________
   Depth of Pump Intake Setting _______ ft. below _______ ft., which elevation is _______ ft.
   Depth to bottom of airline _______ ft. below _______ ft., which elevation is _______ ft.
   Pumping Head is _______ ft. Type of flow meter: _______ which measures in _______.

24. As-built drawings attached? ___ Yes ___ No
25. Other remarks/comments: (See below)

Pump Installation Contractor (print) ____________________________ C-57 Lic. No. __________________
Signature ____________________________ Date __________________

Applicant (print) ____________________________
Signature ____________________________ Date __________________

8. (cont’d) DRILLER’S LOG (cont’d):

   Water Level Depth (ft.) Rock Description, Remarks, Dates (ft.)
   __________________________________________________________
   to __________________ to __________________
   to __________________ to __________________
   to __________________ to __________________
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AQUIFER (PUMP) TEST PROCEDURES

The pump test procedure for new wells shall consist of a step-drawdown test followed by a long-term continuous aquifer test. Testing the well and aquifer in the prescribed manner should result in the hydrologic information needed to determine: 1) the well’s performance with regard to yield and water quality (chloride concentration), and 2) the nearby hydraulic properties of the aquifer.

General Recording Requirements

The records required for analysis and the tolerance in measurement acceptable for the step-drawdown and long-term continuous aquifer test are as follows:

1. Discharge from the well shall not fluctuate beyond ± 10 percent.
2. Depth to water measurements in the pumped well shall be accurate to 0.01 feet.
3. Time shall be accurate within ± 1 percent.
4. Water discharged from the well during the step-drawdown and long-term test shall be carried away from the well to a distance sufficient to preclude circulation of the discharge water downward to the ground-water table.
5. Recording of data should be on a form similar to Table 1. All information shown in Table 1 shall be provided. In addition, data shall be plotted on Graph 1 and provided.

Step-Drawdown Test

The purpose of the step-drawdown test is to establish the efficiency of the well and to provide preliminary information on the yield of the well, both from a quantity and quality standpoint.

1. Measurement of water level in the pumped well shall be made every 12 hours for a period of no less than two days prior to the initiation of the step-drawdown test in order to obtain the pretest trend in water levels.
2. The step-drawdown test will consist of continuously pumping the well for four hours at four different rates.
   a. The change from one pumping rate to the next must be sufficient to induce an observable change in water level in the well from the previous pumpage rate.
   b. If desired, the four different rates should represent the full range of pump capacity (if the yield can sustain this), but this is not necessary.
3. Each pumping rate should be continued for one hour, after which the new rate should be instituted as rapidly as possible.

4. Pumping should begin at the lowest rate and conclude with the highest rate.

5. Pumping should be continuous through the entire step-drawdown test.

6. Measurement of chloride concentration and temperature of the discharge water shall be measured at least five times:
   a. at the end of each pumping rate during the step-drawdown test, and
   b. at the very beginning of the test.

7. A sufficient number of water level measurements shall be made in the pumped well following the termination of the step-drawdown test to establish that the water level fully recovers from each test to pretest levels.

---

**Long-Term Continuous Test**

The purpose of the long-term continuous test is to determine the hydraulic properties of the aquifer to explore for and identify nearby aquifer boundaries such as streams or dikes, and to observe the trend in chloride concentration of the discharge water.

1. The long-term test should not commence until the water level in the pumped well has fully recovered from the step-drawdown test. Generally, the time required for this recovery will be slightly greater than four hours. The water level in the pumped well should be measured immediately before initiation of the long-term test.

2. The pump rate for the long-term test should be sufficient to create an observable drawdown.

3. The test should be run 24 hours per day for at least seven days. If during the test, the water level remains the same for a period of 24 hours, the test can be terminated.

4. Measurement of chloride concentration and temperature of the discharge water during the long-term test shall be made at the beginning of the test and every six hours thereafter.

5. Depth to water in all wells shall be measured with sufficient frequency that each logarithmic cycle in time on the data plots (Graph 1) contains at least 10 data points spread through the cycle. Thus, depth to water should be made at \( t=0 \) (immediately prior to start of the test), and as close as possible at \( t=1, 1.5, 2, 2.5, 3, 4, 5, 6, 7, \) and 8 minutes for the first ten minutes and at all succeeding decimal multiples of these numbers to the end of the test (\( t=10, 15, 20, 25, 30, 40, 50, 60, 70, \) and 80 minutes for the log cycle 10 to 100 minutes, etc.)

6. A sufficient number of water level measurements shall be made in the pumped well following termination of the long-term continuous test to establish that the water level fully recovers from each test to pretest levels.
**LONG-TERM AQUIFER TEST DATA**

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<th>Pumped Well No.</th>
<th>Observation well no.</th>
<th>Pumped Well Name</th>
<th>Distance between Obs. &amp; Pumped Well ft.</th>
<th>Target Q gpm</th>
<th>Reference pt. for depth to water ft. msl</th>
<th>Static Water Level @ start of test ft. msl</th>
<th>Water level measurements by:</th>
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<th>Depth to water (nearest 0.01 ft)</th>
<th>Drawdown (unadjusted to nearest 0.01 ft)</th>
<th>Pumping rate Q (gpm)</th>
<th>EC (umhos)</th>
<th>Cl (mg/l)</th>
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<td>Drawdown (unadjusted to nearest 0.01 ft)</td>
<td>Pumping rate Q (gpm)</td>
<td>EC (µhos)</td>
<td>CF (mg/l)</td>
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- Use same ending drawdown figure as start for recovery
- Max possible duration, water level or quality did not stabilize for any 24 period
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<th>Pumping rate Q (gpm)</th>
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END TEST  Date: ___________  Hour of day: ___________

ADDITIONAL REMARKS:

Person in charge of pump test (print): ____________________________

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 aquifer test.

CWRM LTAT Form 1/9/98
### ANNUAL GROUND WATER USE REPORT FOR

**Michael Ruben**  
600 Stable Road  
Kahului, Hawaii 96732

**Report Submitted for the Year 19**

<table>
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<tr>
<th>State Well No.</th>
<th>Well Name</th>
<th>Measurement End Date (mm/dd/yy)</th>
<th>Quantity Pumped (gallons)</th>
<th>Method of Measurement</th>
<th>Chloride (mg/l)**</th>
<th>Temp. (*F)</th>
<th>Lowest Pumping Water Level (ft. above msl)</th>
<th>Highest Non-pumping*** Water Level (ft. above msl)</th>
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**Instructions:** Please type or print clearly. Complete this form to report total monthly ground water use, and, if required, other information from each of your well sources. Mail to: Commission on Water Resource Management, P.O. Box 621, Honolulu HI 96809. For assistance, please call 587-0265 (Oahu only) or 1-800-468-4844 (neighbor islands).

- Flow meter, electrical consumption, weir of flume, not metered (estimated)
- ** - indicate how long pump was on or off when chloride sample taken
- *** - minimum time between pump/well turned off and water level measurement must be at least 24 hours; if pumping schedule did not allow for at least 24 hour rest during the month please indicate amount of hours pump was off before this measurement

Other comments or additional information (e.g. - date and method of chloride measurement; how pumpage amounts are estimated; etc...):

---

**Submitted by (print)______________________________**  
**Title______________________________**

**Signature______________________________**  
**Date______________________________**

**EXHIBIT 7**
9. PROPOSED WELL SECTION

Elevation at top of casing fl., masl.

Cement Grout: 20 ft.

Rock Packing: 0 ft.

Hole Diameter: 10 in. to 20 ft.
6 in. to 30 ft.

Total Depth: 20 ft.

Ground Elevation: 5 ft., masl

Solid Casing:
Material: P.V.C. Schedule 40
Length: 6 in. to 20 ft. Seamed with 4 in. to 30 ft.
Diameter
Wall thickness .25 in.

Casing: X Perforated Screen
Material: P.V.C. Schedule 40
Length: 20 ft.
Diameter: 4 in.
Wall thickness .25 in.
Openings: 2 sq. in./L.F.

Open Hole:
Length: 0 ft.
Diameter: N.A. in.
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

APPLICATION FOR PERMIT
X Well Construction and X Pump Installation

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 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.

1. APPLICANT: (circle primary contact a, b, or c) Primary Fax: 808-572-0825
(a) WELL OWNER
   Firm/Name: N.A.
   Contact Person: Mike Robertson
   Ph: 572-2873
   Address:

(b) LANDOWNER
   Firm/Name: Contact Person: Ph: 
   Address:

(c) CONTRACTOR
   Firm/Name: Wallani Drilling Company
   Ph: 572-2873
   Contractor's C-57 License No.: C-20115
   Contact Person: Mike Robertson
   Address: 855 Kuliak Rd. Halk, Maui, Hawaii, 9678

2. WELL LOCATION/NAME: Puna Wall Island Maui 38260
   (Attach a USGS map, scale 1"=2000', and a property tax map showing well location referenced to established property boundaries.)

3. (a) PROPOSED WORK
   X Drill New Well
   Deepen X Install New Pump
   Modify Existing Well
   Redrill Modify Pump
   Abandon/Seal *
   Replace Pump
   * Be sure to complete and submit well abandonment report upon completion of work.

(b) WELL TYPE:
   Dag Bored Driven X Drilled Radial
   Is this well a part of a battery of wells? Yes X No
   (Briefly describe and fill in the diagram on the back of this form.)

4. PROPOSED PUMP INFORMATION: Rated Pump Capacity: 50 gallons per minute
   Pump Type:
   Deep Well Turbine
   Rotary
   Propeller
   Diesel
   X Submersible
   Rotary-Displacement
   Reciprocating
   Gas
   Centrifugal
   Rotary-Gear
   Impulse
   X Electric, rated horsepower:
   If Pump Replacement, Existing Pump Capacity: N.A. gallons per minute

5. PROPOSED USE:
   Municipal (including hotels, stores, etc.)
   Military
   X Domestic (individual, noncommercial wateruse.)
   Industrial
   X Irrigation (crop)
   Fruit Trees
   Other (explain)

6. (a) PROPOSED AMOUNT OF WITHDRAWAL: 5000 gallons per day
   (b) METHOD OF FLOW MEASUREMENT: X Flow-meter Open-pipe
   Orifice Plate
   Weir

7. PENDING ACTIONS: CDUA SMA EIS EA X NONE Other(explain)
   Completion Date: N.A.

REMARKS,EXPLANATIONS:

I understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 30 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

Well Owner
Signature: Date: 6/24/96
Landowner
Signature: Date: 6/24/96
Contractor
Signature: Date: 6/24/96

For Official Use Only:
Date Received:
8. Remarks, Explanations (cont'd)

9. PROPOSED WELL SECTION

Elevation at top of casing
ft., msl.

Cement Grout: 20 ft.

Rock Packing: 0 ft.

Hole Diameter: 10 in. to 20 ft.
6 in. to 30 ft.

Total Depth: 20 ft.

Ground Elevation: 5 ft., msl

Solid Casing:
Material: P.V.C. Schedule 40
Length: 6 in. to 20 ft; sleeved with 4 in. to 30 ft.
Diameter
Wall thickness: .25 in.

Casing: X Perforated Screen
Material: P.V.C. Schedule 40
Length: 20 ft.
Diameter: 4 in.
Wall thickness: .25 in.
Openings: 2 sq. in./L.F.

Open Hole:
Length: 0 ft.
Diameter: N.A. in.

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

Dear Mr. Robertson:

Well Construction/Pump Installation Permit Application for Papaula-Ruben Well (Well No. 5426-01)

We received an incomplete application for the captioned well on June 25, 1996. To complete the application, please submit the following information:

1) ground elevation
2) total depth of well
3) proposed pump capacity
4) proposed withdrawal

In addition, we note that four other approved wells for which you served as applicant are delinquent in submittal of start work notices (permits require start of work within six months of approval):

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You can expect your application to be processed for action within ninety (90) days from the acceptance of required information and a status report on the four approved wells.

If you have any questions about your application, please contact Charley Ice of the Commission staff at 587-0251 or toll-free at 1-800-468-4644, extension 70251.

Sincerely,

RAE M. LOUI
Deputy Director
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accepted 29 July 76
APPLICATION FOR PERMIT
X Well Construction and X Pump Installation

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

APPLICATION FOR PERMIT
X Well Construction and X Pump Installation

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 321, Honolulu, Hawaii 96806. Application must be accompanied by 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 587-0229.

1. APPLICANT: (circle primary contact a, b, or c) Primary Fax: 808 672-9525
   (a) WELL OWNER
   Firm Name: N. A. Contact Person: Mike Robertson Ph: 672-2873
   Address: 

   (b) LANDOWNER
   Firm Name: Michael Loven Contact Person: Address: 

   (c) CONTRACTOR:
   Firm Name: Walland Drilling Company Contact Person: Mike Robertson Ph: 672-3073 Address: 655 Kuliike Rd. Haliaku, Maui, Hawaii, 96706

2. WELL LOCATION NAME: Railia Wall Island Maui
   Tax Map Key: 3 8 2 26
   (Attach a USGS map, scale 1"=2000', and a property tax map showing well location referenced to established property boundaries.)

3. (a) PROPOSED WORK
   X Drill New Well X Deepen X Install New Pump
   Modify Existing Well X Redrill X Modify Pump
   * Abandon/Seal *
   * Be sure to complete and submit well abandonment report upon completion of work.

   (b) WELL TYPE:
   X Drilled Driven X Drilled Radial
   Is this well a part of a battery of wells? Yes X No
   (Briefly describe and fill in the diagram on the back of this form.)

4. PROPOSED PUMP INFORMATION: Rated Pump Capacity: 50 gallons per minute
   Pump Type: Deep Well Turbine
   X Submersible
   Centrifugal
   Motor:
   Propeller
   Reciprocating
   Impulse
   X Electric, rated horsepower:
   If Pump Replacement, Existing Pump Capacity: N. A gallons per minute

5. PROPOSED USE:
   X Domestic (individual, noncommercial water use)
   X Irrigation (crop) Fruit Trees
   X Other (explain) Industrial 
   X Municipal (including hotels, stores, etc.) 
   X Military
   X Medical
   X Educational
   X Other

6. (a) PROPOSED AMOUNT OF WITHDRAWAL: 5000 gallons per day
   (b) METHOD OF FLOW MEASUREMENT: X Flow-meter Open-pipe Office Plate Wier

7. PENDING ACTIONS: CDUA SMA EA X NONE Other (explain)
   Completion Date: N. A.

REMARKS, EXPLANATIONS:

(Iff more space is needed, continue on back)

I understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 30 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

Well Owner
Signature: 
Date: 6/20/01

Landowner
Signature: 
Date: 6/20/01

Mike Robertson
Contractor
Signature: 
Date: 6/20/01

For Official Use Only:
Date Recorded
9. PROPOSED WELL SECTION

Elevation at top of casing ft., nsf.

Ground Elevation: 5 ft., nsf.

Cement Grout 20 ft.

Rock Packing 0 ft.

Hole Diameter: 10 in. to 20 ft.
6 in. to 30 ft.

Total Depth 20 ft.

Solid Casing:
Material P.V.C. Schedule 40
Length 6 in. to 20 ft. sleeved with 4 in. to 30 ft.
Diameter
Wall Thickness: 0.25 in.

Casing: X Perforated Screen
Material P.V.C. Schedule 40
Length 20 ft.
Diameter 4 in.
Wall Thickness: 0.25 in.
Openings 2 sq. in./ft.

Open Hole:
Length 0 ft.
Diameter N.A. in.

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