PUMP INSTALLATION PERMIT
Kikiaola, Well No. 5841-01

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

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Kikiaola (Well No. 5841-01) at Kauai, Hawaii, TMK 1-2-6-6, 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 230 gpm capacity, or less, pump in the well.

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

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

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

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

7. The pump installation permit application and any related staff submittal approved by the Commission are incorporated into this permit by reference. This permit is also subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

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

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

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

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

Date of Approval: January 10, 2002
Expiration Date: January 10, 2004

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

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

Permittee's Signature: [Signature]
Firm or Title: Milohae Ltd. Partnership
Date: [Signature]

Printed Name: Elizabeth K. Toulan
Firm or Title: Milohae Ltd. Partnership

Installer's Signature: [Signature]
C-57, C-57a, or A License #: 21457
Date: 3-14-92

Printed Name: Steve Goldberg
Firm or Title: OASIS WATER

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

Attachments
- USGS
  Department of Health/ Safe Drinking Water & Wastewater Branch
  Kauai Department of Water Supply
  Betsy Toulan, Milohae Limited Partnership
February 25, 2002

Mr. Steve Goldberg
Oasis Water Systems
P.O. Box 535
Kilauea, HI 96754

Dear Mr. Goldberg:

Re-Issuance of Pump Installation Permit
Kikialoa (Well No. 5841-01)

We are re-issuing a pump installation permit for the subject well for the 230 gpm pump that has been installed in the well. Based on your application, a pump installation permit for 200 gpm was issued on October 15, 1999. Subsequently, through the Well Completion Report - Part II that was submitted on January 10, 2002, we discovered that a larger capacity pump (230 gpm) had been installed. Because this is a situation where a slight modification to a permit that has been issued is needed, and data in file already supports the different configuration, we are able to re-issue a modified permit administratively.

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

Special Conditions

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

2. A validated copy of the permit shall be returned to the Commission within thirty (30) days.

Finally, this letter is notice that we have accepted your Well Completion Report - Part II as complete as of January 10, 2002.

If you have any questions, please call Lenore Nakama of the Commission staff at 587-0218 or toll-free at 274-3141, extension 70218.

Aloha,

GILBERT S. COLOMA-AGARAN
Chairperson

Enclosure

c: Betsy Toulan, Milohae Limited Partnership
PUMP INSTALLATION PERMIT
Kikiaola, Well No. 5841-01

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

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Kikiaola (Well No. 5841-01) at Kauai, Hawaii, TMK 1-2-6-6, 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 230 gpm capacity, or less, pump in the well.

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

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

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

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

7. The pump installation permit application and any related staff submittal approved by the Commission are incorporated into this permit by reference. This is also subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

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

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

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

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

Date of Approval: January 10, 2002
Expiration Date: January 10, 2004

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

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

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

Installer's Signature: ___________________________ C-57, C-57a, or A License #: ____________ Date: ____________
Printed Name: ___________________________ Firm or Title: ___________________________

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

Attachments
C: USGS
Department of Health/ Safe Drinking Water & Wastewater Branch
Kauai Department of Water Supply
Betsey Toulan, Milohae Limited Partnership
20. Pump Installation Company: **Oasis Water**
21. Name of person performing work: **Dave Goldsby**
22. Date Pump Installation Completed: **6-30-99**
23. PUMP INSTALLATION:
   - Pump Type, Make, Serial No.: **2AB 340DFC 230S20A-6**
   - Capacity: **250 gpm**
   - Motor type, H.P., Voltage, rpm: **230V 20 HP 3 P 6600-4**
   - Depth of Pump Intake Setting: **160 ft. below ground which elevation is 996.8 ft.**
   - Depth to bottom of intake: **12.0 ft. below**
   - which elevation is **11 ft.**
   - Pumping Head is: **100 ft.**
   - Type of flow meter: **Mechanical** which measures in **gpm**
24. As-built drawings attached attached? **Yes / No**
25. Other remarks/comments: **(See below)**

**Pump Installation Contractor (print):** **Oasis Water**
C-57 Lic. No. **21457**
**Signature:**

**Applicant (print):** **Elizabeth K. Taylor**
**Date:** **9-22-1999**
**Signature:**

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

<table>
<thead>
<tr>
<th>Date (FL)</th>
<th>Water Level</th>
<th>Depth (FL)</th>
<th>Rock Description, Remarks,</th>
<th>Date (FL)</th>
<th>Water Level</th>
<th>Depth (FL)</th>
<th>Rock Description, Remarks,</th>
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19. & 25. Remarks:

**L-5841-01 KIKAOLDA**
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

Bench mark elevation surveyed to nearest 0.01 ft = 99.68 ft mean sea level

Elevation of top of chase tube = 101.04 ft mean sea level

Pump intake depth = 18.0 ft (referenced to bench mark)

Chase tube depth = 17.8 ft (referenced to bench mark)

If airline installed, bottom of airline elevation = -60 ft
160 ft mean sea level
Ref to bench mark
PUMP INSTALLATION PERMIT

Kilauea Water Well No. 18-01-01

In accordance with the Department of Land and Natural Resources, Commission on Water Resources Management (CWRM) Administrative Rules, Title 13, Part 10, entitled "Water Use Wells, and Small Diversions Water," the enclosed prevents the pump installation for Kilauea Water Well No. 18-01-01 at Kilauea, Kauai, Hawaii, TMI 1-3-4, subject to the Kilauea Water Conservation & Pump Installation Regulations (16.45 ET005) which include but are not limited to the following conditions:

1. The Company is the Commission on Water Resources Management (Commission), P.O. Box 691, Honolulu, HI 96813, which shall be notified, in writing, at least 30 days before any well is opened by the permittee and shall be served to inspect the installation in accordance with §13-134-9.1, Hawaii Administrative Rules.

2. The pump installation permit shall be valid for installation of a 2500 gpm capacity, or less, pump only.

3. The pump shall provide and maintain an appurtenant meter of other equipment required for maintaining and reporting water levels and water usage, and appurtenant meters or tables for maintaining records and water usage. These data shall be maintained monthly and reported to the Commission on a monthly basis, on forms provided by the Commission (16.45 ET005).

4. The proposed pump shall not adversely affect existing or future legal uses of water in the area, including any existing water or established water users. This permit shall not render legal use or establish new water users. This permit or the conditions to pump water from a well shall not constitute a determination of complete water rights. The permit is subject to the condition that the use of water from this well will be reduced by the Commission in the future. The Commission may require the permittee to modify the proposed use or cease operation of the proposed use as approved by the Commission.

5. The pump shall be installed and tested in accordance with Rule 16.45 ET005 and the following testing and certification reports, and Part II - Pump Installation Report of the Well Completion Report completed by the Commission within 60 days after installation of the pump.

6. The pump shall be installed with all equipment, valves, and accessories, and the commission may grant for possession of this permit.

7. The pump installation report shall be submitted to the Commission by the permittee to the Hawaii Water Conservation & Pump Installation Regulations (16.45 ET005). If the requirements of the Commission are not fulfilled in a reasonable time, a fee on the property may result.

8. The permittee may be required to close the well within 30 days after the date of approval or final inspection or examination for any reason, which occurs after the completion of the installation.

9. The permittee shall be required to close the well within 30 days after the date of approval or final inspection or examination for any reason, which occurs after the completion of the installation.

10. The permittee shall be required to close the well within 30 days after the date of approval or final inspection or examination for any reason, which occurs after the completion of the installation.

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

Date of Approval: October 12, 1990
Expiration Date: October 12, 2001

T. E. Jones
Commission on Water Resources Management

I, the undersigned, do certify that the above-named and undersigned is the owner or operator of the well, and that the provisions of this permit have been complied with, and that the permittee has signed, sealed, and returned the permit to the Commission. I also understand that any violation of any permit condition may begrounds for revocation and fees of up to $1000 per day starting from the permit date of approval.

[Signature]

[Printed Name]

[Signature]

[Printed Name]

[Date: June 29, 2002]

[Date: August 28, 2010]

[Re-issued]

[Printed Name]

[Printed Name]

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

[Re-issued]

[Printed Name]

[Printed Name]
Mr. Steve Goldberg  
Oasis Water Systems  
P.O. Box 535  
Kilauea, HI 96754

Dear Mr. Goldberg:

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

**Special Conditions**

1. A validated copy of the permit shall be returned to the Commission prior to the start of any work authorized by this permit.
2. If the elevation benchmark needs to be altered, the permittee shall ensure that the benchmark is transferred (or the well resurveyed) and documentation of the new benchmark shall be submitted to the Commission within sixty (60) days after the pump is installed.

The permittee is responsible for all conditions of the permit. This includes ensuring that the pump installation contractor 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 starting from the permit approval date.

To validate your pump installation permit, please sign and have the landowner 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.

**IMPORTANT** - Unless specifically exempted, pump installation may not proceed without a validated permit returned to the Commission. 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 587-0218 or toll-free at 274-3141, extension 70218.

Aloha,

TIMOTHY E. JOHNS  
Chairperson

Enclosure
PUMP INSTALLATION PERMIT
Kikialoa Well, Well No. 5841-01

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Kikialoa Well (Well No. 5841-01) at Kauai, Hawaii, TMK 1-2-6-6, 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 200 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 a monthly 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). If the HACPIIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

8. The permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the pump installation permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than three (3) months prior to the date the permit expires. If the commencement date is not met, the Commission may revoke the permit after giving the permittee 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. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

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

Date of Approval: October 12, 1999
Expiration Date: October 12, 2001

TIMOTHY E. JOHNS, Chairperson
Commission on Water Resource Management

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

Permittee's Signature: ___________________________ Date: ____________
Printed Name: ___________________________ Firm or Title: ___________________________
Installer's Signature: ___________________________ C-57, C-57a, or A License #: ___________________________ Date: ____________
Printed Name: ___________________________ Firm or Title: ___________________________

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

Attachments

c: USGS
Department of Health & Safe Drinking Water & Wastewater Branch
Kauai Department of Water Supply
Allan Zawtock, First Hawaiian Bank Trustee, Eric A. Knudsen Trust
## WELL COMPLETION REPORT

**2/27/98 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 587-0225, or 1-800-468-4644 Extension 70225.

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1. State Well No.: 5841-01</td>
<td>Well Name: Kikiaola</td>
</tr>
<tr>
<td>2. Location/Address: Kauai, Hawaii</td>
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### PART I. WELL CONSTRUCTION REPORT

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<tbody>
<tr>
<td>3. Drilling Company: Oasis Water Systems</td>
<td></td>
</tr>
<tr>
<td>4. Name of driller who performed work: Barry Simmons</td>
<td></td>
</tr>
<tr>
<td>5. Type of rig/construction: Rotary</td>
<td></td>
</tr>
<tr>
<td>6. Date(s) Well Construction and pump tests (if any) completed: 7-14-99</td>
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<tr>
<td>7. GROUND ELEVATION (referenced to mean sea level, msl): 99.68 ft.</td>
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<td>8. DRILLER'S LOG: Please attach geologic log (if available or if required by permit)</td>
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<td>9. Total depth of well below ground: 201 ft.</td>
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<td>10. Hole size:</td>
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<td>11. Casing installed:</td>
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<tr>
<td>12. Annulus: Grouted from 0 ft. below ground to 100 ft. below ground</td>
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<tr>
<td>Gravel packed from   ft. below ground to   ft. below ground</td>
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<tr>
<td>13. Initial water level: 60 ft. below ground. Date and time of measurement: 4-20-99</td>
<td></td>
</tr>
<tr>
<td>14. Initial chloride: 65 ppm Date and time of sampling: 4-21-99</td>
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</tr>
<tr>
<td>15. Initial temperature: 70.1°F Date and time of measurement: 4-21-99</td>
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<tr>
<td>16. PUMPING TESTS: Reference Point (R.P.) used: Top of casing, which elevation is 100 ft.</td>
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<tr>
<td>17. Pump Test Procedures data &amp; graphs (12/17/97 SDPTD &amp; CRPTD Forms) attached? Yes No</td>
<td></td>
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<tr>
<td>18. As-built drawings attached? Yes No</td>
<td></td>
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<tr>
<td>19. Other remarks/comments: (On back of this form)</td>
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</tbody>
</table>

**Well Drilling Contractor (print):** Oasis Water C-57 Lic. No. C21457

**Signature**

**Surveyor (print):** Attached

**Signature**

**Applicant (print):**

**Signature**
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 ______ ground
   Depth to bottom of airline _______ ft. below ______ ground
   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):

<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>
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19. & 25. Remarks:
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State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

WELL COMPLETION REPORT

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 821, Honolulu, Hawaii 96809. A soil sample of the well and chemical analysis should also be submitted. For assistance call the Commission Regulation Branch at 587-0225 or 1-800-482-5444 Extension 0225.

1. State Well No.: 5841-91
2. Location/Address: Kauai, Hawaii
3. State: Hawaii
5. Department of Land and Natural Resources

WELL CONSTRUCTION REPORT

3. Drilling Company: Oasis Water Systems
4. Name of driller who performed work: Barry Simmons
5. Type of rig/construction: Rotary
6. Date(s) Well Construction and Pump Tests (if any) completed: 7/14/91
7. GROUND ELEVATION (reference to mean sea level, msl): 197.88 ft.
8. DRILLER'S LOG: Please attach geologic log (if available or if required by permit)

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<thead>
<tr>
<th>Depths (ft)</th>
<th>Rock Description, Water Level, Dates, etc.</th>
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<td>0-100</td>
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</table>

9. Total depth of well below ground: 200 ft.
10. Hole size: 121/2 inch dia from 0 ft to 100 ft. below ground
    121/2 inch dia from 100 ft. below ground to 200 ft. below ground
11. Casing Installed: 6 in 1D x 3 1/4 in wall solid section to 140 ft. below ground
    6 in 1D x 3 1/4 in wall perforated section to 200 ft. below ground
    Casing Material/Slot Size: PVC SCH 40 3/4 inch inside dia
12. Annulus: Grouted from 0 ft. below ground to 100 ft. below ground
    Gravel packed from 100 ft. below ground to 200 ft. below ground
13. Initial water level: 60 ft. below ground
15. Initial temperature: 70.1 °F
16. PUMPING TESTS: Reference Point (R.P.) used:
   (1) Step-Drawdown Test Date: 8/26/91, which elevation is 100 ft. below ground
   (2) Long-term Aquifer Test Date: 9/28/91
17. Pump Test Procedural data & graphs (171? 2497, SDPTD & CRPTD Forms) attached?
18. Other remarks/comments: (On back of this form)

WELL COMPLETION REPORT

| Well Drilling Contractor/Agent: Oasis Water Systems C 57 Lic. No. 21437 |
| Signature: Barry Simmons Date: 7-28-91 |
| Surveyor: (print) Attached Lic. No. |
| Signature: Date |
| Applicant (print): Elizabeth K. Tildon Date: 9-26-91 |
| Signature: Elizabeth K. Tildon Date: 9-26-91 |
NOTE:
Bench Mark
St. Mon. Poe Ko Place
Elev. = 9.58 msl

WELL ELEVATION

Top PVC Pipe
Elev. = 101.04

Top Steel Casing
Elev. = 100.41

Elev. = 99.68

WELL NO. 9841-01
TOULON WELL
Tax Map Key: (4)1-2-06: 09
Kekaha, Kauai, Hawaii
Date of Survey: June 22, 1999

Wayne T. Wada
Signature
ESAKI SURVEYING & MAPPING, INC.
**OASIS WATER SYSTEMS, LLC.**  
P.O. BOX 38, KILAUEA, HI 96754

**WELL LOG**  
**WELL #5841-01**  
**OWNER: TOULON**

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<th>DEPTH</th>
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<td>GRAY SHALE AND BOULDERS (MED SOFT)</td>
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<td>34-51</td>
<td>RED CLAY AND ROCK STREAKS (MED HARD)</td>
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<td>51-72</td>
<td>RED AND BLACK CINDERS, STREAKS OF RED CLAY (SOFT TO MED) INITIAL WATER</td>
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<tr>
<td>72-121</td>
<td>BLUE ROCK, STREAKS OF CLAY (HARD)</td>
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<td>121-160</td>
<td>CINDERS, SAND AND SMALL GRAVEL (SOFT) WATER ZONE</td>
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<td>BLUE ROCK (HARD)</td>
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<td>CINDERS (SOFT) WATER ZONE</td>
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<td>BLUE ROCK (HARD)</td>
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</table>

WATER LEVEL ROSE TO 93' BELOW SURFACE. INITIAL CLORIDES WERE 65MGL. FINAL CLORIDE WAS 55MGL AFTER 24 HOUR PUMP TEST.
As Built Drawing Well # 5841-01 Kikiaola

140'
6" pvc sch 40 Solid Casing

14.75'' Diameter Grouted Bore Hole

100' Grouted Bore Hole

93' Water Level

12.14' Diameter Bore Hole

60' Perforated Casing
**STEP-DRAWDOWN PUMP TEST DATA**
(not required for wells producing < 100,000 gpd or 70 gpm)

Pumped Well No. 5841-01  
Pumped Well Name: Kilioka  
Target Q: 300 gpm

Observation well no.  
Distance between Obs. & Pumped Well:  
Reference pt. for depth to water:  
Top of casing:  
msl  
Static Water Level @ start of test: +5 ft. msl

Water level measurements by:  
Steel tape  
Pressure transducer  
Air line

START TEST  
Date: 7-12-99  
Time of day: 9:13 A.M

Flow Meter Reading Start: 527,000 gals

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<th>Suggested Elapsed Time (min)</th>
<th>Actual Elapsed Time (min)</th>
<th>Depth to water (nearest 0.1 ft)</th>
<th>Drawdown S (unadjusted to nearest 0.1 ft)</th>
<th>Pumping rate Q (gpm) (at least 3 steps)</th>
<th>EC (u.mhos)</th>
<th>Cl⁻ (mg/l)</th>
<th>Temp. °F or °C</th>
<th>Date in this table is for:</th>
<th>Remarks</th>
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<td>Drawdown S (unadjusted to nearest 0.1 ft)</td>
<td>Pumping rate Q (at least 3 steps) (gpm)</td>
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Max possible duration, water level or quality did not stabilize for any 24 period

Begin recovery data next page
Flow meter reading at end of pumped period: 578,900 gals

1 starting pumping rate Q
2 minimum length of step period of constant pumping rate
3 minimum mandatory Chloride (Cl-) measurement/sampling at end of every step
4 Use same ending drawdown figure as start for recovery
# CONSTANT-RATE PUMP TEST DATA

**Pumped Well No.:** 5841-01  
**Target Q:** 300 gpm  
**Pumped Well Name:**  
**Observation well no.:**  
**Distance between Obs. & Pumped Well:**  
**Reference pt. for depth to water:**  
**Static Water Level @ start of test:**  

Water level measurements by:  
- [ ] steel tape  
- [ ] pressure transducer  
- [ ] airline  

**START TEST**  
**Date:** 7-13-91  
**Time of day:** 3:00 pm  

**Flow Meter Reading Start:** 576,900 gals

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<th>Actual elapsed time (min)</th>
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**Data in this table is for:**  
- [ ] Pumped Well  
- [ ] Observation Well  

**Remarks**
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<tr>
<th>Suggested elapsed time (min)</th>
<th>Actual elapsed time (min)</th>
<th>Depth to water (nearest 0.1 ft)</th>
<th>Drawdown (unadjusted to nearest 0.1 ft)</th>
<th>Pumping rate Q (gpm)</th>
<th>EC (µhos)</th>
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</tr>
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</table>

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: 10,293.00 gals

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

<table>
<thead>
<tr>
<th>Suggested elapsed time (min)</th>
<th>Actual elapsed time (min)</th>
<th>Depth to water (nearest 0.1 ft)</th>
<th>Recovery Drawdown Δ (unadjusted to nearest 0.1 ft)</th>
<th>Pumping rate Q (gpm)</th>
<th>EC (μmhos)</th>
<th>Cl⁻ (mg/l)</th>
<th>Remarks</th>
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</table>

**END TEST** Date: **7-14-99**  Time of day: **8:00 AM**

**ADDITIONAL REMARKS:**

Person in charge of pump test (print): **Steve Goldberg**

Signature: **Steve Goldberg**

The signature above indicates that the data reported on this form is accurate and true to the best of the person's knowledge who operated this pump test.
### WCR 1 Check for Well No. 5841-01

#### 1. Pump Tests Check

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Glenn Bauer (initial)</th>
<th>Yes</th>
<th>No</th>
<th>If no, describe deficiency</th>
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<tbody>
<tr>
<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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<td>analysis attached</td>
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<td>proposed pump cap o.k.</td>
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<td>☐</td>
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<td>Aquifer Pump Test:</td>
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<tr>
<td>T &amp; S analysis attached</td>
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<tr>
<td>Well Interference:</td>
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<tr>
<td>estimated Steady-State</td>
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<tr>
<td>drawdown at 1-mile radius is</td>
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<tr>
<td>analysis attached</td>
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<td>☐</td>
<td></td>
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<tr>
<td>Stream Surface Water Impacted:</td>
<td></td>
<td>☑</td>
<td>☐</td>
<td>If yes, identify most probable stream</td>
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#### 2. Construction Check

<table>
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<tr>
<th>Test Type</th>
<th>Mitch Ohye (initial)</th>
<th>Yes</th>
<th>No</th>
<th>If no, describe deficiency</th>
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STEP-DRAWDOWN ANALYSIS

By Onn Bauer

NAME OF WELL: Kikiaola Well 5841-01
DATE OF TEST: July 12, 1999
DATE OF ANALYSIS: 06-Oct-99

<table>
<thead>
<tr>
<th>s(ft)</th>
<th>ds (ft)</th>
<th>GPM</th>
<th>s/Q</th>
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</tr>
<tr>
<td>0.125</td>
<td>0.063</td>
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<td>0.0004</td>
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</table>

Regression Output:
Constant = 0.000415
Std Err of Y Est = 7.8E-06
No. of Observations = 4
R Squared = 0.419953
Degrees of Freedom = 2

\[ s = bQ + cQ^2 \]

if \( Q = 290 \) gpm

\( b = 0.120 \) calcs. \( s = 0.126 \) ft.

\( cQ^2 = 0.006 \)

\( L = 95.50 \) PERCENT OF HEAD LOSS = LAMINAR FLOW

adjusted drawdown using \( L @ 290 \) gpm

\[ 0.12 \text{ ft.} \]

Polubarinova-Kochina Eq.

\[ Q = \frac{Q\ln(1.6L/r)}{2\pi Ls} \]

\( K = 3.999 \) ft/d
\( L = 108 \) ft
\( r = 0.50 \) ft
\( s = 0.12 \) ft
\( Q = 55,829 \) cu. ft./d
\( h = 7 \)
\( b = 287 \) ft
\( T = 1,147,737 \) ft²/d

SPECIFIC CAPACITY \( Q/s = \)

\[ Q = 290 \text{ gpm} \]
\[ Q/s = 4603 \text{ GAL/FT OF DD} \]
April 12, 1999

State Of Hawaii
Water Commission
ATT: Chairperson

Fax # 808-587-0219

Dear Sir,

Please be advised that Oasis Water, Inc. License No. C-21457, will begin work on the Kikiaola well, Well No.5841-01 in two weeks.

Sincerely,

Steve Goldberg
Oasis Water inc. C-21457
Oasis Water Systems, Inc.
P.O BOX 535
KILAUEA, HI 96754
Phone: 808-828-6876

April 12, 1999

State Of Hawaii
Water Commission
ATT: Chairperson
Fax # 808-587-0219

Dear Sir,

Please be advised that Oasis Water, Inc. License No. C-21457, will begin work on the Kikiaola well, Well No.5841-01 in two weeks.

Sincerely,

Steve Goldberg
Oasis Water inc. C-21457
WELL CONSTRUCTION PERMIT

Kikiaola Well, Well No. 5841-01

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-188, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of Kikiaola Well (Well No. 5841-01) at Kauai, Hawaii, TMK 1-2-6-4, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/87) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 821, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work authorized by this permit commences.

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

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

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

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

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

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

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

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

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

11. If the well is not to be used it must be properly capped. If the well is to be abandoned, then the permittee must apply for a well abandonment permit in accordance with §13-188-12(I) prior to any well sealing or plugging work.

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

Date of Approval: October 5, 1998
Expiration Date: October 5, 2000

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

Permittee's Signature: ___________________________ Date: 10-8-98
Printed Name: ___________________________ Firm or Title: ___________________________
Driller's Signature: ___________________________ License #: 21458 Date: 10-8-98
Printed Name: ___________________________ Firm or Title: ___________________________

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

Attachment
C: USGS
Department of Health/ Safe Drinking Water, Wastewater, and Clean Water Branches
Kauai Department of Water Supply
Allan Zewlocki, Eric A. Knudsen Trust
Mr. Steve Goldberg
Oasis Water Systems
P.O. Box 535
Kilauea, Hawaii 96754

Dear Mr. Goldberg:

Well Construction Permit
Kikiaola (Well No. 5841-01)

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

Special Conditions

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

2. The wall thickness of well casing shall be selected in accordance with good design practices applied with due consideration to conditions at the site of the well and shall be sufficient to withstand anticipated formation and hydrostatic pressures imposed on the casing during its installation, grouting, well development, and use.

3. To prevent surface contamination, the annular space of all cased non-artesian wells (except monitor wells designed for immediate and short-term monitoring purposes and subsequent abandonment) must be sealed with grout from the ground surface to a minimum depth of 500 feet or 70% of the vertical distance between the ground surface and the top of the aquifer selected for exploration, long-term monitoring, or development, whichever depth is less.

4. The annular space of wells to be grouted must be a minimum of three inches all around the casing to permit effective placement of grout with a tremie pipe having a minimum diameter of $\frac{1}{4}$ inches. Should casing with collars be used, the drilled hole shall be increased to provide a minimum three-inch annular space at the collars.

This permit does not authorize work for your permanent pump installation. Approval and issuance of your pump installation permit is contingent upon completed application and information provided to and accepted by Commission staff as required in the Well Construction & Pump Installation Standards (1/23/97) and any special conditions performed under this permit. However, in accordance with the Commission's April 15, 1998 Declaratory Ruling No. DECDADM98-G5, which states that:
a permanent pump may be installed prior to the permanent pump installation permit issuance. If you qualify and wish to take advantage of this ruling, please include a written request to install the permanent pump prior to final pump installation permit issuance when you return to us your validated well construction permit.

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

IMPORTANT - The well owner is responsible for all conditions of the permit. This includes ensuring that the well construction contractor, or other party who constructs the well(s), submits a completed Part I of the Well Completion Report form (enclosed) within sixty (60) days after the well construction work is completed. Be advised that you may be subject to fines of up to $1000 per day for any violations of your permit conditions.

If you have any questions, please call the Commission staff at 587-0218 or toll-free at 274-3141, extension 70218.

Aloha,

Michael D. Wilson
Chairperson

Enclosures
WELL CONSTRUCTION PERMIT
Kikiaola Well, Well No. 5841-01

In accordance with the Department of Land and Natural Resources, Commission on Water Resources Management’s Administrative Rules, Section 13-168, entitled “Water Use, Wells, and Stream Diversion Works”, this document permits the construction and testing of Kikiaola Well (Well No. 5841-01) at Kauai, Hawaii, TMK 1-2-8-6, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

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

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

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

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

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

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

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

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

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

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

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

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

Date of Approval: October 5, 1998
Expiration Date: October 5, 2000

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

Permittee’s Signature: ____________________________ Date: ________________
Printed Name: ____________________________ Firm or Title: ____________________________
Driller’s Signature: ____________________________ License #: ________________ Date: ________________
Printed Name: ____________________________ Firm or Title: ____________________________

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

Attachment:

USGS
Department of Health/ Safe Drinking Water, Wastewater, and Clean Water Branches
Kauai Department of Water Supply
Allan Zawlocki, Eric A. Knudsen Trust
### SECTION 1: WELL LOCATION INFORMATION

<table>
<thead>
<tr>
<th>Island</th>
<th>KAUAI</th>
<th>Proposed Use</th>
<th>#VALUE!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquifer System</td>
<td>WAIMEA</td>
<td>Proposed Withdrawal</td>
<td>288000</td>
</tr>
<tr>
<td>Aquifer Sector</td>
<td>KEKAHA</td>
<td>System Sustainable Yield</td>
<td>12</td>
</tr>
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</table>

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

<table>
<thead>
<tr>
<th>Elevation at top of casing</th>
<th>Solid Casing</th>
</tr>
</thead>
<tbody>
<tr>
<td>ft., m.s.l.</td>
<td>Material</td>
</tr>
<tr>
<td>Ground Elevation</td>
<td>Designation</td>
</tr>
<tr>
<td>ft., m.s.l.</td>
<td>Length</td>
</tr>
<tr>
<td>Cement Grout</td>
<td>Diameter</td>
</tr>
<tr>
<td>ft.</td>
<td>Wall Thickness in.</td>
</tr>
<tr>
<td>Rock Packing</td>
<td></td>
</tr>
<tr>
<td>Hole Diameter</td>
<td></td>
</tr>
<tr>
<td>in.</td>
<td></td>
</tr>
<tr>
<td>Total Depth</td>
<td></td>
</tr>
<tr>
<td>ft.</td>
<td></td>
</tr>
</tbody>
</table>

| Estimated Head             | Outside Diameter in. |
| Calculated Aquifer Thickness |                   |
| ft.                        |              |

<table>
<thead>
<tr>
<th>County Water Supply (Y/N ?)</th>
<th>County or Non-County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>non-county</td>
</tr>
</tbody>
</table>

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

**Well Depth**

- Theoretical Thickness of Aquifer: 328 ft.
- 1/4 Aquifer Thickness: 82 ft.
- Depth of Well below Sea Level: 80 ft., okay  
  (refer to HWCPIS Section 2.2)

**Well Casing**

- Minimum Wall Thickness
  - Material: PVC
  - County or Non-County: non-county
  - Minimum Thickness per standards: 0.322 in.
  - Wall Thickness Provided: 0.000 in., too small  
    (refer to HWCPIS Section 2.4 c)

- Minimum Length of Solid Casing
  - 90% of ground to top of aquifer: 100.8 ft.
  - Length of solid casing Provided: 140 ft., okay  
    (refer to HWCPIS Section 2.4 d)

- Casing Material
  - Sch 40, okay  
    (refer to HWCPIS Section 2.4 e)

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

- Depth of Grouting
  - Calculated Depth of Grouting: 78.4 ft.
  - Depth of Grouting provided: 50 ft., not enough  
    (refer to HWCPIS Section 2.6 c)
  - Thickness of Annular Space: 2.375 in., too small  
    (refer to HWCPIS Section 2.6 d)
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 Permit Application
   Kikiaola (Well No. 5841-01)

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 September 28, 1998.

Please find a map, attached, to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Lenore Nakama of the Commission staff at 587-0218.

LN:ss
Attachment(s)

RESPONSE:

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

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

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

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

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

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

[ ] No comments/objections

Contact Person: Lori N. Kajiwara

Phone: 586-4204

Signed: Dori N. Kajiwara

Date: 9-22-98
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 Permit Application  
         Kikiaola (Well No. 5841-01)  

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Attachment(s)  

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          prevention devices should be routinely inspected and tested.  

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          (information attached).  

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

[ ] No comments/objections  

Contact Person: William Wong  
Phone: 586-4258  

Signed: ___________________________  
Date: 09/22/98
The Department of Health, Clean Water Branch has the following comments:

1. For Well-Drilling Activities

Any discharge to State waters of treated process wastewater effluent associated with well drilling activities is regulated by Hawaii Administrative Rules, Chapter 11-55, Appendix I, effective September 22, 1997. Treated process wastewater effluent covered by this general permit includes well drilling slurries, lubricating fluids wastewaters, and well purge wastewaters. This general permit does not cover well pump testing. The applicable Notice of Intent Forms and filing fee shall be submitted at least thirty (30) days before the start of discharge to the Department of Health, Clean Water Branch at 919 Ala Moana Boulevard, Room 301, Honolulu, Hawaii 96814-4920 or P.O. Box 3378, Honolulu, Hawaii 96801-3378. Inquiries may be directed to the Clean Water Branch at (808) 586-4309 or by fax at (808) 586-4352.

2. For Well Pump Testing

The discharger shall take all measures necessary to prevent the discharge of pollutants from entering state waters. Such measures shall include, if necessary, containment of the initial discharge until the discharge is essentially free of pollutants. If the discharge is entering a stream or river bed, best management practices shall be implemented to prevent the discharge from disturbing the clarity of the receiving water. If the discharge is entering a storm drain, the discharger must obtain written permission from the owner of that storm drain prior to discharge. Furthermore, best management practices shall be implemented to prevent the discharge from collecting sediments and other pollutants prior to entering the storm drain.

JS/cr
Mr. Steve Goldberg  
Oasis Water System  
P.O. Box 535  
Kilauea, HI 96754  

Dear Mr. Goldberg:

Well Construction / Pump Installation Permit Application for Well No. 5841-01

We acknowledge receipt, on September 1, 1998, of your completed well construction / pump installation permit application for the Kikiaola Well (Well No. 5841-01). You can expect your application to be processed within ninety (90) days from this date.

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

If you have any questions about your permit application, please contact Lenore Nakama of the Commission staff at 587-0218 or toll-free at 274-3141, extension 70218.

Sincerely,

TIMOTHY E. JOHNS  
Deputy Director

LN:ss
TO: Honorale 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 Permit Application
Kikiaola (Well No. 5841-01)

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 September 28, 1998.

Please find a map, attached, to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Lenore Nakama of the Commission staff at 587-0218.

RESPONSE:

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

[ ] No comments/objections

Contact Person: ___________________________ Phone: ___________________________

Signed: ___________________________ Date: ___________________________
Oasis Water Systems, Inc.
P.O BOX 535
KILAUEA, HI 96754
Phone: 808-828-6876

State Of Hawaii
Water Commission
ATT. Lenore

Dear Lenore,

Good morning, enclosed you will find a copy of a USGS map locating the proposed well site for the Eric A. Knudsen trust. I believe this is all you were needing to complete this application.

Thank you for your time.

Sincerely,
Steve Goldberg
Oasis Water inc.
Mr. Steve Goldberg  
Oasis Water System  
P.O. Box 535  
Kilauea, HI 96754

Dear Mr. Goldberg:

Well Construction Permit Application for Kikiaola Well

We have received your well construction permit application and filing fee for the Kikiaola Well. However, your application is incomplete. Matters which must be addressed before we accept your application as complete are as follows:

1. USGS map, scale 1"=2000', showing the location of the well (Please provide a USGS map, scale 1"=2000', showing the well location, in any future permit applications.)

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

At your option, you may apply for a permit to install a permanent pump on the same application. This will expedite the permitting process. If you wish to apply for both the well construction and pump installation permits concurrently, please inform us in your response to this letter, and we will amend the application accordingly.

If you have any questions about your permit application, please contact Lenore Nakama of the Commission staff at 587-0218 or toll-free at 274-3141 (Kauai), extension 70218.

Sincerely,

TIMOTHY E. JOHNS  
Deputy Director

LN:ss
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<th>PROJECT</th>
<th>PH</th>
<th>ACT</th>
<th>AMOUNT</th>
<th>NAME/DESCRIPTION (WANG INPUT)</th>
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<td>25.00</td>
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REMARKS: LINE (1) Kikiaola Well
LINE (2)
LINE (3)
LINE (4)
State of Hawaii
Water Commission

July 17, 1998

Dear Lenore:

The owner of this property is The Eric A. Knudsen Trust. Mr. Allen Zawada of First Hawaiian Bank is the assigned Trustee. He has signed the enclosed Well Construction Permit as the landowner.

If you have any more questions, please contact me.

Sincerely,

Steve Goldberg
Oasis Water Systems, Inc.
808-828-6876
APPLICATION FOR PERMIT

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

APPLICATION FOR PERMIT

Well Construction or Pump Installation

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 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 587-0225.

1. APPLICANT: (circle primary contact a, b, or c) Primary Fax: 808-228-2850
   (a) WELL OWNER
   Firm Name: Milchak Limited Partnership
   Contact Person: Besty Tsai
   Address: P.O. Box 666
   Kailua, HI 96736
   (b) LANDOWNER FIRST HAWAIIAN BANK TRUSTEE
   Firm Name: Eric B. Kowadeau Trust
   Contact Person: Allan G. Towaii
   Address: P.O. Box 3728
   Honolulu, HI 96811
   (c) CONTRACTOR
   Firm Name: Oasis Water Sys
   Contact Person: Steve Goldberg
   Address: P.O. Box 535
   Kailua, HI 96734

2. WELL LOCATION/NAME: Kiliua
   Island: Kauai
   Address: Kiliua, Hawaii
   Tax Map Key: 1-2-6-6

   Attach the relevant portion of (a) a 7.5-Minute Series USGS Topographic map (scale 1" = 2,400'), and (b) a property tax map, showing well location referenced to established property boundaries.

3. (a) PROPOSED WORK:
   (b) WELL TYPE:
   (c) PROPOSED USE:
   (d) PROPOSED AMOUNT OF WITHDRAWAL:
   (e) METHOD OF FLOW MEASUREMENT:
   (f) PENDING ACTIONS:
   (g) REMARKS, EXPLANATIONS:

   Pump Type: Deep Well Turbine  Rotary  Submersible
   Motor: Diesel
   If Pump Replacement, Existing Pump Capacity: __________
   gallons per minute

4. PROPOSED PUMP INFORMATION:
   Rated Pump Capacity: 200 gallons per minute
   pump

5. PROPOSED USE:
   (a) Municipal (including hotels, stores, etc.)
   (b) Domestic (individual, non-commercial water systems)
   (c) Irrigation (crop)
   (d) Domestic (industrial)

6. PROJECTED MAXIMUM AMOUNT OF WITHDRAWAL: 2,856,000 gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   (c) PENDING ACTIONS:
   (d) REMARKS, EXPLANATIONS:

   Completion Date: ________

   (if more space is needed, continue on back)

I understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 30 days after the completion date of the 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 use.

Well Owner: Milchak Limited Partnership
Landowner: Eric B. Kowadeau Trust
Contractor: Oasis Water Sys

Signature: Chellepell Tsai Signature: Allan Towaii Signature: Steve Goldberg
Date: 6-27-93 Date: July 4, 1998 Date: 9-27-93

For Official Use Only:
Date Received: ________ Date Accepted: ________
Field Checked By: ________ Date: ________
Latitude: ________ Longitude: ________
Aquifer System Name: Keahakwai Island State Well No. 5X41-85

Amended per 9/4/98 telecomm w/Steve Goldberg, LN

4 Nov 96 WCPI Form
9. PROPOSED WELL SECTION

- Elevation at top of casing: 122 ft., msl.
- Ground Elevation: 10 ft., msl*
- Cement Grout: 0-50 ft.
- Rock Packing: 50-200 ft.
- Hole Diameter: 12 3/4 in.
- Total Depth: 200 ft.

**Table: Solid Casing**

<table>
<thead>
<tr>
<th>Material</th>
<th>Length</th>
<th>Diameter</th>
<th>Wall thickness</th>
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</thead>
<tbody>
<tr>
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**Table: Casing**

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<td>8&quot; PUC, SCH 40</td>
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<td>sq. in. AF</td>
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**Table: Open Hole**

<table>
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<th>Diameter</th>
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</thead>
<tbody>
<tr>
<td>200 ft.</td>
<td></td>
</tr>
</tbody>
</table>

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