Memorandum for the Record

From: Lenore Nakama
Subject: Pump Permit & WCR 2 for 5945-03

11/7/05 Mr. Dias hand-delivered a signed WCR2 and corrected the date of pump installation to be 12-21-02.

Told him we still need a signed permit and a photo of the well & pad. Gave him another copy of the permit to execute. He said he will take care of these 2 items ASAP.

5-4-06 New Landowner

Sunrise Capital
Jim Sweeney

5-4-06 Emailed Antonio a copy of permit for him to execute. He will also send in photos.
Mr. Ernest Dias
Ceatech Plantations
Airport Industrial Park

Dear Mr. Dias:

Well Completion Reports for Well Nos. 5945-01 & 02

We have received your Well Completion Reports Part II for the Ceatech Plantation Wells #1 & #2 (Well Nos. 5945-01 & 02) and acknowledge that they are complete. Thank you also for returning signed pump installation permits.

If you have any questions, please contact Lenore Nakama of the Commission staff at

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

LN:ss

c: State of Hawaii
Ms. Linnel T. Nishioka - Deputy Director
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii

Dear Ms. Nishioka:

Pump Installation Permit for Ceatech Plantation Well 2 (5945-02) and
Part II - Well Completion Reports for Wells 1 & 2 (5945-01 & 02), Kekaha, Kauai.

Attached are an executed copy of the Pump Installation Permit for Well 5945-02 and Well Completion Reports (Part II) for both wells (5945-01 & 02). We have also included the pumpage reports from the start of the use of each well through August 2000. Both wells pump saltwater from the basalt formation 500 feet below the Kekaha-Mana plain.

We apologize for being late with these submittals. If you need additional information, feel free to call me or Ernie Dias at Ceatech [redacted]. Thank you for your attention to this matter.

Sincerely,

[Signature]
Tom Nance

cc: Ernie Dias

Attachments
PUMP INSTALLATION PERMIT
Ceatech Plantation Well #2, Well No. 5945-02

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 Ceatech Plantation Well #2 (Well No. 5945-02) at Kekaha, Kauai, TMK 1-2-1, 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 3,000 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 an annual basis, on forms provided by the Chairperson (attached).

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

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

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

7. The pump installation permit application is incorporated into this permit by reference and is 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: August 8, 2000
Expiration Date: August 8, 2002

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 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: Aug. 25, 2000
Printed Name: Ernest K. Dias Firm or Title: Ceatech Plantation Well

Installer's Signature: Date: 8/29/2000
Printed Name: Melvin E. Lima Firm or Title: Melvins Water Work's

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

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

1. State Well No.: 5945-02  
   Well Name: Geatech Plantations #1  
   Island: Kauai  

2. Address: Kekaha, Kauai  
   Tax Map Key: 1-2-2:1  

3. Pump Installation Company: Mels Water Works  

4. Date Pump Installed: June 24, 1998  
   Month/Day/Year  

5. PERMANENT PUMP INFORMATION  
   Sen's No. 93008A499  
   Pump Type, Make, Serial No.: SIMFLO VERTICAL TURBINE  
   Rated Capacity: 4000 gpm  
   Motor Type, H.P., Voltage, rpm: ELECTRIC (SILENCERCASE), 100 HP, 460 V, 3 PH, 1760 RPM  
   Type of flow meter: NONE INSTALLED  
   which measures in  

6. Method of flow measurement:  
   ° Flowmeter  
   ° Weir*  
   ° Open Pipe*  
   ° Orifice*  
   ° Other*, explain below  
   *attach schematic  

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

8. Other remarks/comments:  
   PUMPAGE AMOUNT IS ESTIMATED FROM NAME RATE RATING  
   AND RUNNING TIME  

Pump Installation Contractor (print) Mels Water Works  
Signature ___________________________ Date 8/25/2000  

Permittee (print)  
Signature ___________________________ Date 8/25/2000  

WCR2 Form 5/2/00
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

Bench mark elevation surveyed to nearest 0.01 ft. = 16 ft. mean sea level

Elevation of top of chase tube = 15 ft. mean sea level

Pump intake depth = 40 ft. (referenced to bench mark)

Chase tube depth = 37.33 ft. (referenced to bench mark)

If airline installed, bottom of airline elevation = (None) ft. mean sea level
1. State Well No.: 5945-02  
Well Name: Ceatech Plantations #2  
Island: Kauai

2. Address: Kekaha, Kauai  
Tax Map Key: 1-2-2-1

3. Pump Installation Company: MEVS WATER WORKS

4. Date Pump Installed: MARCH 20, 1999  
month/day/year

5. PERMANENT PUMP INFORMATION
   Pump Type, Make, Serial No.: SIMFLO VERTICAL TURBINE  
   Rated Capacity: 4002 gpm
   Motor Type, H.P., Voltage, rpm: ELECTRIC (SQUARED CASE), 100 HP, 460V, 3 PH, 1760 RPM
   Type of flow meter: *NONE INSTALLED* which measures in

6. Method of flow measurement:
   - Flowmeter
     Manufacturer: Make: Size:
   - Weir*  Open Pipe*  Orifice*  Other*, explain below
     *attach schematic

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

8. Other remarks/comments:
   FLOWAGE AMOUNT IS ESTIMATED FROM NAME PLATE RATING AND RUNNING TIME

---

Pump Installation Contractor (print) MEVS WATER WORKS
Signature: [Signature]  
Date: 8/25/2000

Permittee (print) Ceatech Plantations
Signature: [Signature]
Date: 8/25/2000
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

Bench mark elevation surveyed to nearest 0.01 ft. = \(15 \pm\) ft. mean sea level

Pump intake depth = \(50\) ft. (referenced to bench mark)

Chase tube depth = \(47.34\) ft. (referenced to bench mark)

If airline installed, bottom of airline elevation = \(3\) ft. mean sea level
Ms. Linnel T. Nishioka - Deputy Director  
Commission on Water Resource Management  
Department of Land and Natural Resources  
State of Hawaii  

Dear Ms. Nishioka:

Pump Installation Permits for  
CEATECH Plantations Wells 1 and 2,  
State Nos. 5945-01 and 02, in Kekaha, Kauai

Attached are executed permits for CEATECH saltwater Wells 1 and 2 (State Nos. 5945-01 and 02). The Pump Completion Report - Part II for both wells is being prepared by Mel Lima of Mel's Water Works and will be submitted shortly.

Sincerely,

Tom Nance

cc: Ernest Dias - CEATECH Plantations  
    Mel Lima - Mel's Water Works

Attachments
PUMP INSTALLATION PERMIT

Ceotech Plantations Well 1, Well No. 5945-01

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 Ceotech Plantations Well 1 (Well No. 5945-01) at Kekaha Agricultural Park, Kauai, TMK 1-2-02:01, 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 3,000 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: July 23, 1998
Expiration Date: July 23, 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 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.

Permittee's Signature: Ernest K. Dias
Firm or Title: Ceotech Plantations
Date: Aug. 21, 2000

 Installer's Signature: Michael E. Lum
License #: C-17980 Date: 8/25/2000
Firm or Title: Mel's Water Works
Printed Name: Melvin E. Lima

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 Branches
Kauai Department of Water Supply
State of Hawaii
PUMP INSTALLATION PERMIT
Ceattech Plantation Well #2, Well No. 5945-02

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-166, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Ceatech Plantation Well #2 (Well No. 5945-02) at Kekaha, Kauai, TMK 1-2-2:1, 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 3,000 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 an annual basis, on forms provided by the Chairperson (attached).

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

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

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

7. The pump installation permit application is incorporated into this permit by reference and is 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, assignee, 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: August 8, 2000
Expiration Date: August 8, 2002

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 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: [Signature]
Printed Name: Ernest A. Jih
Firm or Title: Ceatech Plantation

Installer's Signature: [Signature]
Printed Name: Melvin E. Ling
Firm or Title: Mel's Water Works

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

Attachments
- USGS
- Department of Health's Safe Drinking Water & Wastewater Branch
- Kauai Department of Water Supply
- State of Hawaii, Department of Agriculture
Mr. Ernest Dias
Ceatech Plantations
Airport Industrial Park

Dear Mr. Dias:

Notice of Expiration
Pump Installation Permit for Well No. 5945-01

This is to notify you that the subject permit expired on July 23, 2000. We understand that a pump has been installed in the well. Please sign and return a fully executed copy of the permit (including the signature of your licensed pump installation contractor). In addition, please submit the following items required under Condition 5 of your permit (copy attached) within sixty (60) days:

1. As-built drawing of the installed pump
2. Well Completion Report Part II

Failure to submit the above items within sixty (60) days may result in fines of up to $1000 per day.

If you have any questions, please contact Lenore Nakama at [redacted]

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

LN:ss
Attachment
Dear Mr. Dias:

Pump Installation Permit
Ceatech Plantation Well #2 (Well No. 5945-02)

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

Special Conditions

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

The permittee, well operator, and/or well owner are responsible for all conditions of the permit. 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.

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.

IMPORTANT - Pump installation shall not commence until a fully signed permit is 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 as of December 16, 1999.

If you have any questions, please call Lenore Nakama of the Commission staff at

Aloha,

TIMOTHY E. JOHNS
Chairperson

Enclosure

c:  State of Hawaii, Department of Agriculture
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 Ceatcheck Plantation Well #2 (Well No. 5945-02) at Kekaha, Kauai, TMK 1-2-2:1, 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 3,000 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 an annual basis, on forms provided by the Chairperson (attached).

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

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

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

7. The pump installation permit application is incorporated into this permit by reference and is 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: August 8, 2000
Expiration Date: August 8, 2002

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 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
State of Hawaii, Department of Agriculture
**WCR 1 Check for Well No. 5945-02** (survey to regulation memo)

1. **Pump Tests Check**  
   Glenn Bauer [initial]  
   **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:**
   - [ ] [ ] If yes, identify most probable stream

2. **Construction Check**  
   Mitch Ohye [initial]  
   **Yes** | **No**  
   **If no, describe deficiency**
   
   - data complete [ ] [ ]
   - followed WCPI Stds [ ] [ ]
   - wellphys.dbf updated [ ] [ ]
   - welaplic.dbf updated [ ] [ ]

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1. Roy [review]
2. Subia [finalize]
3. Limel [sign]
4. Milch [mb]
5. Leon [ ]
Called Tom Nance & told him we already had a copy of what he faxed. Told him that the total depth was not filled in on wcr. He said to consider that the total depth is 545', based on the drilling log, and he will call or fax if he finds that it is not. The other missing piece of info was the actual location. Tom said that the well was drilled pretty much where they proposed to drill (as shown on the WCA). Shall we accept wcr1?

Ernest Bias cell phone 271-7701.
4/10 contacted Ernest & to send notice of P&P proposed. He will get written to submit wcr-11. Also, need to discuss fees for 5445.02. Paper is in. He will validate Receipt & send in WCR-11.
Subject: Sunkiss Shrimp Co., Kekaha, Kauai

Did anyone request this information from DOA?

Per your May 16th memo, contact numbers for Ernest Dias is as follows:

CEATECH PLANTATIONS
AIRPORT INDUSTRIAL PARK

ON KAUA"
TO: Honorable James J. Nakatani, Chairperson
Department of Agriculture

FROM: Timothy E. Johns, Chairperson
Commission on Water Resource Management

SUBJECT: Well Construction by Ceatech Plantations, Inc.
Kekaha, Kauai, Hawaii, TMK 1-2-2:1

We are writing to request your assistance in obtaining information regarding a salt-water well (Well No. 5945-02) that was constructed by Ceatech Plantations, Inc. (Ceatech) in September, 1998 on land that was set aside to the Department of Agriculture for the Kekaha Agricultural Park (TMK 1-2-2:1). Our recent letter to Ceatech (attached) was returned "Not Deliverable As Addressed, Unable to Forward", and the directory assistance has no listing of any company by that name.

Specifically, we are seeking information regarding the total depth of the well (or an as-built drawing of the well section) and a final plot plan and map showing the exact location of the well. Please be aware that there is another recently-constructed Ceatech salt-water well in the vicinity (Well No. 5945-01). We have received sufficient information regarding that well, Well No. 5945-01. From the permit application, we understand that Well No. 5945-02 was drilled to the south and east of Well No. 5945-01 (which has a total depth of 550 feet).

If you need our assistance, please let us know. If you can provide us with transportation from Honolulu to the site, we will cover our employees' cost and their per diem.

Please contact my deputy, Linnel Nishioka, at 5 if there are any questions regarding this request.

LN:ss
Attachment
4-1-2-2-1

Owner: STATE OF HAWAII
Tax Payer: GROVE FARM ROCK COMPANY
Tenure: G
Semi-Annual Tax: $12.50

Assessed Value (99/00) Exemption Size Bldgs: 98 Dwellings: 0
Land: 22,572,200 22,570,300 12,998.00 acres PITT: 400 Zoning: A
Tot Bldg: 255,800 255,800 0 sq ft Use: 0 Nbhood: 1211

Press ESC or enter C (clear) to begin a new search, or
Dear Mr. Dias:

NOTICE OF VIOLATION

Well Completion Report for Well No. 5945-02

This follows our letter of November 24, 1998, requesting that you submit the following items per Condition 7 of your well construction permit for Ceatech Plantation Well No. 2 (Well No. 5945-02):

1. As-built sectional drawing of the well (Standard Condition 7.c.)
2. Final plot plan and map showing the exact location of the well (Standard Condition 7.d.)

Please respond to the above items within sixty (60) days of this letter's date. Failure to do so may result in fines of up to $1000 per day. We will issue a pump installation permit for your well once we receive these outstanding items.

Also, we were unable to contact you by telephone, as the phone number that is listed on your application is no longer in service ( ). Please provide a new telephone number, if available.

If you have any questions, please contact Lenore Nakama of the Commission staff at

Sincerely,

LINNEL T. NISHIOKA
Deputy Director
Dear Mr. Dias:

NOTICE OF VIOLATION
Well Completion Report for Well No. 5945-02

This follows our letter of November 24, 1998, requesting that you submit the following items per Condition 7 of your well construction permit for Ceatech Plantation Well No. 2 (Well No. 5945-02):

1. As-built sectional drawing of the well (Standard Condition 7.c.)
2. Final plot plan and map showing the exact location of the well (Standard Condition 7.d.)

Please respond to the above items within sixty (60) days of this letter's date. Failure to do so may result in fines of up to $1000 per day. We will issue a pump installation permit for your well once we receive these outstanding items.

Also, we were unable to contact you by telephone, as the phone number that is listed on your application is no longer in service (521-1801). Please provide a new telephone number, if available.

If you have any questions, please contact Lenore Nakama of the Commission staff at

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

LN:ss
Mr. Ernest K. Dias  
Ceatech Plantations, Inc. 

Dear Mr. Dias:

Well Completion Report for Well No. 5945-02

We have received your Well Completion Report Part I for the Ceatech Plantation Well No. 2 (Well No. 5945-02). However, matters which must be addressed before we accept your report as complete are as follows:

1. Submittal of an as-built sectional drawing of the well (Standard Condition 7.c.)

2. Submittal of a final plot plan and map showing the exact location of the well (Standard Condition 7.d.)

Please respond to the above item(s) within sixty (60) 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 Lenore Nakama of the Commission staff at

Sincerely,

TIMOTHY E. JOHNS  
Deputy Director
**WCR 1 Check for Well No. 5945-02** (survey to regulation memo)

### 1. Pump Tests Check

Glenn Bauer (initial)

<table>
<thead>
<tr>
<th>Step-Drawdown Test:</th>
<th>Yes</th>
<th>No</th>
<th>If no, describe deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>acceptable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>followed WCPI Stds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>analysis attached</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>proposed pump cap o.k.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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:

If yes, identify most probable stream

### 2. Construction Check

Mitch Ohye (initial)

<table>
<thead>
<tr>
<th>data complete</th>
<th>Yes</th>
<th>No</th>
<th>If no, describe deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>followed WCPI Stds</td>
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</tr>
<tr>
<td>wellphys.dbf updated</td>
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<td></td>
</tr>
<tr>
<td>welaplic.dbf updated</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Mr. Timothy E. Johns - Deputy Director  
Commission on Water Resource Management  
Department of Land and Natural Resources  
State of Hawaii

Dear Mr. Johns:

Well Completion Report for  
CEATECH Plantations Well No. 2 (State No. 5945-02)

On behalf of CEATECH Plantations, Inc., I am pleased to submit the accompanying Well Completion Report for CEATECH Plantations Well No. 2 (State No. 5945-02). The well was pump tested on October 21, 1998 at rates up to 3650 GPM. Salinity of the pumped water was 32.4 PPT and the temperature was 73.8° F. An enclosed graph details its hydraulic performance.

If you have any questions or need additional information, please call Ernest Dias (808-522-5455) or me. Thank you for your attention to this matter.

Sincerely,

Tom Nance

cc: Ernest Dias  
Aaron Frandsen

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

WELL COMPLETION REPORT  
3/20/96 WCR Form  
97-45

Instructions: Please print or type and submit completed report within 30 days after well completion to the Commission on Water Resource Management. An as-built drawing of the well and chemical analysis should also be submitted. For assistance call the Commission Regulation Branch at 5945-02 CATHTECH Plantations Well No. 2  
Kauai

PART I. WELL CONSTRUCTION REPORT

3. Drilling Company: Impact Well Drilling

4. Name of driller who performed work: Aaron C. Frandsen

5. Type of rig/construction: Cable Tool

6. Date(s) Well Construction and pump tests (if any) completed: 9-19-98

7. GROUND ELEVATION (referenced to mean sea level, msl): 3 ft.  
Well Bench Mark (description/location): Elevation(msl): 3 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>
</tr>
</thead>
<tbody>
<tr>
<td>to</td>
<td>to</td>
</tr>
</tbody>
</table>


10. Hole size: 24 inch dia. from 0 ft. to 440 ft. below ground

11. Casing installed: 17½ in. I.D. x 375 in. wall solid section to 440 ft. below ground

12. Annulus: Grouted from 0 ft. below ground to 435 ft. below ground

13. Initial water level: 3 ft. below ground. Date and time of measurement:

14. Initial chloride: 20 ppm. Date and time of sampling:

15. Initial temperature: 70°F. Date and time of measurement:

16. PUMPING TESTS: Reference Point (R.P.) used: Location, which elevation is 3 ft.

(1) Step-Drawdown Test Date __________ (2) Long-term Aquifer Test Date __________

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: (On back of this form)

Well Drilling Contractor (print) Impact Well Drilling C-57 Lic. No. C-16550  
Signature Aaron Frandsen Date October 1, 1998

Surveyor (print)  
Signature  
Lic. No.  
Date

Applicant (print) ERNEST K. DIAS  
Signature  
Date 10/9/98
**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)

<table>
<thead>
<tr>
<th>Pump Installation Contractor (print)</th>
<th>C-57 Lic. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>Date</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Applicant (print)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Dates (ft.)</th>
<th>Water Level</th>
<th>Depth (ft.)</th>
<th>Rock Description, Remarks,</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 60</td>
<td>Sands</td>
<td>60</td>
<td>sandstone layers + corals</td>
</tr>
<tr>
<td>60 to 80</td>
<td>Corals</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>80 to 190</td>
<td>Clays</td>
<td>190</td>
<td>coral and sand layers</td>
</tr>
<tr>
<td>190 to 285</td>
<td>Sediments</td>
<td>285</td>
<td>coral, clay layers</td>
</tr>
<tr>
<td>285 to 377</td>
<td>Darker</td>
<td>377</td>
<td>volcanic sands</td>
</tr>
<tr>
<td></td>
<td>sediments</td>
<td></td>
<td>+ fine red cinder</td>
</tr>
<tr>
<td>377 to 545</td>
<td>Basalts</td>
<td>545</td>
<td>fractured layers</td>
</tr>
<tr>
<td></td>
<td>w/cinder</td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

19. & 25. Remarks:

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
CEATECH PLANTATION WELL NO. 2
STEP-TEST OF OCTOBER 21, 1998

FLOWRATE (GPM)

DRAWDOWN (FEET)

WELL NO. 2 DATA  ---- WELL NO. 2 CURVE  ---- WELL NO. 1 CURVE
Salt Water Well Pumpage & Its Affects Upon an Overlying Basal Lens
Based on equations developed by Mink (1997)

<table>
<thead>
<tr>
<th>Q (gpm)</th>
<th>mgd</th>
<th>cu.ft/d</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.000</td>
<td>4.3</td>
<td>577.540</td>
</tr>
</tbody>
</table>

Porosity(n) = \(0.15\) ft/d

\(k = 3.184 \) ft.

Radius (r) = 2,000 ft.

\[Q = \text{Porosity}(n) = \frac{Q}{4\pi k r} = 0.01 \text{ ft./d}\]

\[\text{Velocity (v)} = \frac{Q}{4\pi k r^2} = 0.08 \text{ ft./d}\]

\[\text{Time (t)} = \frac{(4npir^3)}{3Q} = 8898.96 \text{ Days} = 23.83 \text{ Years} \]

\[\text{Basal WL} = 1.00 \text{ ft.} \]

\[\text{Head @ r} = \frac{Q}{4\pi kr} = 0.11 \text{ ft.} \]

\[\text{Reduced WL} = 0.99 \text{ ft.} \]

\[\text{Loss of Lens} = 0.29 \text{ ft./d} \]

\[\text{Dist. fr. Well} \quad \text{DD in Basal} \quad \text{loss of lens} \quad \text{Effects (time, yrs)} \]

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>0.14</td>
<td>5.77</td>
<td>0.00</td>
</tr>
<tr>
<td>200</td>
<td>0.07</td>
<td>2.89</td>
<td>0.02</td>
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<tr>
<td>400</td>
<td>0.04</td>
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<tr>
<td>600</td>
<td>0.02</td>
<td>0.96</td>
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</tr>
<tr>
<td>1000</td>
<td>0.01</td>
<td>0.58</td>
<td>2.98</td>
</tr>
<tr>
<td>1500</td>
<td>0.01</td>
<td>0.38</td>
<td>10.05</td>
</tr>
<tr>
<td>2000</td>
<td>0.01</td>
<td>0.29</td>
<td>23.83</td>
</tr>
</tbody>
</table>

Well: CEATECH Well 1 (5945-01)
Dear Mr. Dias:

Pump Installation Permit
Ceatech Plantations Well 1 (Well No. 5945-01)

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 condition was added and is 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 __________.

Aloha,

[Signature]

MICHAEIL D. WILSON
Chairperson

Enclosures
PUMP INSTALLATION PERMIT

Ceatech Plantations Well 1, Well No. 5945-01

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 Ceatech Plantations Well 1 (Well No. 5945-01) at Kekaha Agricultural Park, Kauai, TMK 1-2-02:01, 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 3,000 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: July 23, 1998
Expiration Date: July 23, 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 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.

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

Installer'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.

Attachments:

- USGS
- Department of Health/ Safe Drinking Water & Wastewater Branches
- Kauai Department of Water Supply
- State of Hawaii
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

WELL COMPLETION REPORT

1. State Well No.: 5945-01
2. Location/Address: Kekaha Agricultural Park

PART I

3. Drilling Company: Impact Well Drilling
4. Name of driller who performed work: Aaron Frandsen
5. Type of rig/construction: Cable Tool
6. Date(s) Well Construction and pump tests (if any) completed: 6-30-98

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


9. Total depth of well below ground: 550 ft.

10. Hole size:

   24 inch dia. from 0 ft. to 200 ft. below ground.
   22 inch dia. from 200 ft. to 500 ft. below ground.
   16 inch dia. from 500 ft. to 550 ft. below ground.

11. Casing installed:

   16 in. I.D. x .375 in. wall solid section to 420 ft. below ground
   in. I.D. x in. wall perforated section to 420 ft. below ground.

Casing Material/Slot Size:

12. Annulus:

   Grouted from 0 ft. below ground to 415 ft. below ground.
   Gravel packed from ft. below ground to 415 ft. below ground.

13. Initial water level: ft. below ground. Date and time of measurement:

14. Initial chloride: 19,000± 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 Not Known ft.

   (1) Step-Drawdown Test Date 5-26-98
   Start water level ft. below R.P.
   End water level ft. below R.P.

   (2) Long-term Aquifer Test Date Not Done
   Start water level ft. below R.P.
   End water level ft. below R.P.

17. Aquifer Pump Test Procedures data & graphs (1996 LTAT Form) attached? Yes X No

18. As-built drawings attached? Yes _ No

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

Well Drilling Contractor (print) Impact Well Drilling (Lic. No. C-16550

Surveyor (print) _

Applicant (print) PAUL K. BIENTANG

____________________________
Date 7-23-98
FACSIMILE TRANSMITTAL PAGE

Please deliver the following pages:

From: LENORE NAKAMA
Company: CEATECH
To: PAUL BIENFANG

Message: PLEASE SIGN ON BOTTOM OF FORM (APPLICANT) TO COMPLETE FORM. WE WILL THEN BE ABLE TO ISSUE PUMP PERMITS. PLEASE PASS BACK TO ME @ [REDACTED]

THANKS

Total number of pages (including Transmittal Page) 2

Please call back if not legible: [REDACTED]
Sending Facsimile No.: [REDACTED]
Receiving Facsimile No.: [REDACTED]
WCR 1 Check for Well No. 5945-01 (survey to regulation memo)

1. **Pump Tests Check** Glenn Bauer [initial] (initial)  
<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>If no, describe deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
</tr>
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<tr>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
</tr>
</tbody>
</table>

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

   Aquifer Pump Test:  
   acceptable [x]  
   followed WCPI Stds [x]  
   T & S analysis attached [x]

   Well Interference:  
   estimated Steady-State drawdown at 1-mile radius is _____ ft.  
   analysis attached [x]  

   Stream Surface Water Impacted: [x]  
   - If yes, identify most probable stream

2. **Construction Check** Mitch Ohye [initial] (initial)  
<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>If no, describe deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Checkmark]</td>
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<td>![Checkmark]</td>
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<tr>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
</tr>
</tbody>
</table>

   data complete [x]  
   followed WCPI Stds [x]  
   wellphys.dbf updated [x]  
   welaplic.dbf updated [x]
STEP-DRAWDOWN ANALYSIS

By Glenn Bauer

NAME OF WELL: CEATECH Plantations Well 1 (5945-01)
DATE OF TEST: May 26, 1998
DATE OF ANALYSIS: 16-Jul-98

<table>
<thead>
<tr>
<th>s(ft)</th>
<th>ds (ft)</th>
<th>GPM</th>
<th>s/Q</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1</td>
<td>750</td>
<td>0.0013</td>
</tr>
<tr>
<td>3.2</td>
<td>2.2</td>
<td>1.850</td>
<td>0.0019</td>
</tr>
<tr>
<td>5.5</td>
<td>3.3</td>
<td>2.360</td>
<td>0.0023</td>
</tr>
<tr>
<td>8.6</td>
<td>5.3</td>
<td>3.050</td>
<td>0.0028</td>
</tr>
</tbody>
</table>

Regression Output:
- Constant: 0.000861 = b
- Std Err of Y Est: 3.29E-05
- R Squared: 0.998172
- No. of Observations: 4
- Degrees of Freedom: 2

\[ X \text{ Coefficient(s)} = 6.38E-07 = c \]

\[ \text{Std Err of Coef.} = 1.93E-08 \]

Drawdown(tot) = Drawdown(aq.) + Drawdown(well)

\[ s = bQ + cQA^2 \]

if \( Q = 1.400 \) gpm

\[ bQ = 1.205 \text{ calc. } s = 2.455 \text{ ft.} \]

\[ cA^2 = 1.250 \]

\[ L = 30.68 \text{ PERCENT OF HEAD LOSS = LAMINAR FLOW} \]

adjusted drawdown using \( L @ 2.64 \) ft.

3.050 gpm

Polubarinova-Kochina Eq.

\[ \text{Adjusted } "s" \text{ using constant "b"} \]

\[ K = \frac{Qln(1.6L/r)}{2piLs} = 3,184 \text{ ft/d} \]

\[ L = \text{length of open interval in well} = 130 \text{ ft} \]

\[ r = \text{radius of well in ft.} = 1.00 \text{ ft} \]

\[ s = \text{drawdown in well adjusted for well loss} = 1.21 \text{ ft} \]

\[ Q = \text{pumping rate in cu. ft./d} = 587.166 \text{ cu. ft./d} \]

\[ h = \text{water level} = 12 \]

\[ b = \text{thickness of aquifer (41^*h)} = 164 \text{ ft} \]

\[ T = \text{transmissivity} = k*b = 522,172 \text{ ft}^2/\text{d} \]

\[ \text{SPECIFIC CAPACITY} \frac{Q}{s} = \text{FOR ANY Q} \]

\[ Q = 3,050 \text{ gpm} \]

\[ \frac{Q}{s} = 575 \text{ GAL/FT OF DD} \]

Notes: Thickness of aquifer is assumed to be: 164 ft.
Mr. Michael D. Wilson - Chairperson  
Commission on Water Resource Management  
Department of Land and Natural Resources  
State of Hawaii  

Dear Mr. Wilson:

Well Completion Report for CEATECH Plantations Well No. 1  
State No. 5945-01 in Kekaha, Kauai

Enclosed please find the Well Completion Report prepared by Aaron Frandsen of Impact Well Drilling and an as-built well section prepared by TNWRE. The total well depth is 550 feet. The upper 386 feet encountered soft sedimentary layers with very little permeability. From 386 to 550 feet, the well is in Waimea series volcanics. Most of the yield from this formation in the lowest 80 feet penetrated by the well.

I've also enclosed a salinity-temperature profile and data from a short-term step drawdown test. The pumped water had a salinity of 32.35 PPT, a conductivity of 47,330 µmhos, and a temperature of 73.0° F. If you need any additional information, feel free to give me a call.

Sincerely,

Tom Nance

cc: Ernie Dias - CEATECH Plantations  
Landis Ignacio - CEATECH Plantations  
Aaron Frandsen - Impact Drilling  

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

30 JUL 10 P3:41 7-9-98

WELL COMPLETION REPORT
3/20/96 WCR Form
97-45

(Water)

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 23095, Honolulu, Hawaii 96823. An as-built drawing of the well and chemical analysis should also be submitted. For assistance call the Commission Regulation Branch at 1-808-586-0093.

1. State Well No.: 5945-01 Well Name: CEATECH Plantations Well 1 Island: Kauai
2. Location/Address: Kekaha Agricultural Park Tax Map Key: 1-2-02-01

PART I. WELL CONSTRUCTION REPORT

3. Drilling Company: Impact Well Drilling
4. Name of driller who performed work: Aaron Frandsen
5. Type of rig/construction: Cable Tool
6. Date(s) Well Construction and pump tests (if any) completed: 6-30-98
7. GROUND ELEVATION (referenced to mean sea level, msl): __________ ft
   Well Bench Mark (description/location): __________ ft
   Elevation(msl): __________ ft
8. DRILLER'S LOG: Please attach geologic log (if available or if required by permit)
   (If more space is needed, continue on back)
   Depths (ft.) Rock Description, Water Level, Dates, etc. Depths (ft.) Rock Description, Water Level, Dates, etc.
   Refer to Back to
   Refer to Back to

9. Total depth of well below ground: 550 ft
10. Hole size: 24 inch dia. from 0 ft. to 200 ft. below ground
    22 inch dia. from 200 ft. to 500 ft. below ground
    16 inch dia. from 500 ft. to 550 ft. below ground
11. Casing installed: 16 in. I.D. x .375 in. wall solid section to 420 ft. below ground
    in. I.D. x in. wall perforated section to ft. below ground
   Casing Material/Slot Size:
12. Annulus: Grouted from 0 ft. below ground to 415 ft. below ground
    Gravel packed from ft. below ground to ft. below ground
13. Initial water level: ft. below ground. Date and time of measurement:
14. Initial chloride: 19,000± ppm Date and time of sampling:
15. Initial temperature: __________ °F Date and time of measurement:
16. PUMPING TESTS: Reference Point (R.P.) used: __________ ft. which elevation is Not Known ft
   (1) Step-Drawdown Test Date 5-26-98
   Start water level __________ ft. below R.P.
   End water level __________ ft. below R.P.
   (2) Long-term Aquifer Test Date Not Done
   Start water level __________ ft. below R.P.
   End water level __________ ft. below R.P.
17. Aquifer Pump Test Procedures data & graphs (1/96 LTAT Form) attached? _ Yes _ No
18. As-built drawings attached attached? _ Yes _ No
19. Other remarks/comments: (On back of this form)

Well Drilling Contractor (print) Impact Well Drilling-57 Lic. No. C-15550
Signature \\
Date 7-6-98

Surveyor (print) \\
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 _______ 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):

<table>
<thead>
<tr>
<th>Dates (ft.)</th>
<th>Water Level</th>
<th>Depth (ft.)</th>
<th>Rock Description, Remarks,</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 30</td>
<td>306</td>
<td>Sand w/ sand stone layers</td>
<td>386 to 550 Basalt w/ broken and cinder layers</td>
</tr>
<tr>
<td>30 to 120</td>
<td>306</td>
<td>Corals w/ sand stone</td>
<td>386 to 550 Basalt w/ broken and cinder layers</td>
</tr>
<tr>
<td>120 to 200</td>
<td>306</td>
<td>Clay</td>
<td>386 to 550 Basalt w/ broken and cinder layers</td>
</tr>
<tr>
<td>200 to 300</td>
<td>386</td>
<td>Sediment sands + coral lit. colored</td>
<td>386 to 550 Basalt w/ broken and cinder layers</td>
</tr>
<tr>
<td>300 to 386</td>
<td>386</td>
<td>Darker sediment sands w/</td>
<td>386 to 550 Basalt w/ broken and cinder layers</td>
</tr>
<tr>
<td></td>
<td>386</td>
<td>+ fine red cinder + coral</td>
<td>386 to 550 Basalt w/ broken and cinder layers</td>
</tr>
<tr>
<td></td>
<td>386</td>
<td>+ fragments</td>
<td>386 to 550 Basalt w/ broken and cinder layers</td>
</tr>
</tbody>
</table>

19. & 25. Remarks:
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Figure 1

Step-Drawdown Performance of CenTech Well No. 1

May 26, 1998
CEATECH PLANTATIONS WELL NO. 1
PROFILE OF MARCH 26, 1998

DEPTH INTO WATER (FEET)

SALINITY (PPT)

TEMPERATURE (DEG F)

SALINITY
TEMPERATURE
CEATECH PLANTATIONS WELL NO. 1
COMPARATIVE SALINITY PROFILES

DEPTH INTO WATER (FEET)

SALINITY (PPT)

MARCH 4
MARCH 12
MARCH 15
MARCH 12
MARCH 23
MARCH 26

MARCH 15
MARCH 12
MARCH 4

MARCH 23
MARCH 15
MARCH 12
MARCH 4

MARCH 26
Mr. Ernest K. Dias  
Ceatech Plantations, Inc.

Dear Mr. Dias:

Ceatech Plantation Wells Nos. 1 & 2 (Well Nos. 5945-01 & 02)

From a March 30, 1998 telephone conversation with your consultant, Tom Nance, we understand that the caprock formation in the vicinity of the subject wells does not yield sufficient quantities of salt water required to meet your operational needs. We understand that you are proposing to deepen the subject wells through the caprock into the basalt formation in order to obtain adequate water quantity and quality.

Thank you for informing us of your intent. No additional application need be made. However, please ensure that the construction proceeds in accordance with the Hawaii Well Construction & Pump Installation Standards (January, 1997) for salt water wells. All other terms and conditions of the permit remain.

If you have any questions, please contact Lenore Nakama at [Redacted].

Sincerely,

EDWIN T. SAKODA  
Acting Deputy Director
Mr. Michael D. Wilson - Chairperson
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii

Dear Mr. Wilson:

Well Construction Permits For
Sunkiss Well 5844-06 and
Ceatech Plantation Wells 5945-01 & -02

Enclosed please find executed Well Construction Permits for Wells 5844-06 and 5945-01 and -02 in Kekaha, Kauai. The drilling contractor, Impact Well Drilling, has recently completed Sunkiss Well 5844-06. A Well Completion Report will be filed shortly. Work is scheduled to commence on Ceatech Wells 5945-01 and -02 in mid-January. Feel free to call if you have any questions.

Sincerely,

Tom Nance

cc: Ernest Dias

Enclosures
In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of Ceatech Plantations Well No. 1 (Well No. 5945-01) at Kekaha, Hawaii, TMK 1-2-2:1, 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, and 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 (1/23/97).

10. 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 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: September 8, 1997
Expiration Date: September 8, 1999
MICHAEL D. WILSON, 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. 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: Ernest K. Dias
Firm or Title: CEATECH USA, Inc.
Date: 12-5-97

Driller’s Signature: Aaron C. Frandsen
License #: C-16550 Date: 12/8/97
Firm or Title: Impact Well Drilling

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

Attachment
c:

USSG
Department of Health/ Safe Drinking Water, Wastewater, and Clean Water Branches
Kauai Department of Water Supply
State of Hawaii, Department of Agriculture
WELL CONSTRUCTION PERMIT

Ceatech Plantation Well No. 2, Well No. 5945-02

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of the following well construction permit application is incorporated into this permit by reference and is 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 6244, 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, and 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 (1/23/97).

10. 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 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: September 8, 1997
Expiration Date: September 8, 1999

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: Ernest K. Dias
Printed Name: Ernest K. Dias
Firm or Title: CEATECH USA, Inc.
Date: 12-5-97

Driller's Signature: Olan C. Ziaudun
Printed Name: Olan C. Ziaudun
License #: C-16650 Date: 12/8/97
Firm or Title: Impact Well Drilling

Please sign both copies of this permit, return one to the Chairperson, and retain the other for your records.
Mr. Ernest K. Dias  
Ceatech Plantations, Inc.

Dear Mr. Dias:

Well Construction Permit  
Ceatech Plantations Well No. 1 (Well No. 5945-01)

We have received the letter of concurrence from the Department of Agriculture, landowner at the proposed well site, for the proposed well construction work.

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. 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.

2. The well casing shall be adequate to maintain the structural integrity and intended use of the well and to maintain the natural pre-existing state of protection of the ground-water aquifer from pollution or contamination. Well casing shall be strong enough to resist the forces imposed upon it during and after installation. Thermoplastic well casing shall meet the requirements of ASTM F480, “Standard Specification for Thermoplastic Well Casing Pipe and Couplings Made in Standard Dimension Ratios (SDR), SCH 40 and SCH 80”, and any revision.

3. Condition 2 is modified to exempt the permittee from the requirements for a pump test.

4. Condition 3 shall not apply.

5. Condition 7.b. (requirement for elevation survey by Hawaii-licensed surveyor) and 7.e. (requirement for pumping test records) are waived.
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. Please note that special conditions may simply highlight application deviations from the Standards.

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.

To validate your permit, please sign and have the contractor sign both permit originals and return one for our files. Please provide all the information in this packet to your well drilling contractor.

Also attached for your information is a copy of the Department of Health’s review comments.

If you have any questions, please call the Commission staff at [redacted].

Aloha,

Michael D. Wilson
Chairperson

Enclosures
Ceatech Plantation Well No. 1, Well No. 5945-01

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management’s Administrative Rules, Section 13-168, entitled “Water Use, Wells, and Stream Diversion Works”, this document permits the construction and testing of Ceatech Plantations Well No. 1 (Well No. 5945-01) at Kekaha, Hawaii, TMK 1-2-2-1, 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, and 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 (1/23/97).

10. 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 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: September 8, 1997
Expiration Date: September 8, 1999

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:____________________
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:
C: USGS
Department of Health/ Safe Drinking Water, Wastewater, and Clean Water Branches
Kauai Department of Water Supply
State of Hawaii, Department of Agriculture
REF:CWRM-SS

Mr. Ernest K. Dias
Ceatech Plantations, Inc.

Dear Mr. Dias:

Well Construction Permit
Ceatech Plantations Well No. 2 (Well No. 5945-02)

We have received the letter of concurrence from the Department of Agriculture, landowner at the proposed well site, for the proposed well construction work.

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. 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.

2. The well casing shall be adequate to maintain the structural integrity and intended use of the well and to maintain the natural pre-existing state of protection of the ground-water aquifer from pollution or contamination. Well casing shall be strong enough to resist the forces imposed upon it during and after installation. Thermoplastic well casing shall meet the requirements of ASTM F480, "Standard Specification for Thermoplastic Well Casing Pipe and Couplings Made in Standard Dimension Ratios (SDR), SCH 40 and SCH 80", and any revision.

3. Condition 2 is modified to exempt the permittee from the requirements for a pump test.

4. Condition 3 shall not apply.

5. Condition 7.b. (requirement for elevation survey by Hawaii-licensed surveyor) and 7.e. (requirement for pumping test records) are waived.
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. Please note that special conditions may simply highlight application deviations from the Standards.

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.

To validate your permit, please sign and have the contractor sign both permit originals and return one for our files. Please provide all the information in this packet to your well drilling contractor.

Also attached for your information is a copy of the Department of Health's review comments.

If you have any questions, please call the Commission staff at [redacted].

Aloha,

MICHAEL D. WILSON
Chairperson

Enclosures
WELL CONSTRUCTION PERMIT

Ceatech Plantation Well No. 2, Well No. 5945-02

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of Ceatech Plantation's Well No. 2 (Well No. 5945-02) at Kekaha, Hawaii, TMK 1-2-2:1, 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. and 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 (1/23/97).

10. 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 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(d) 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: September 8, 1997
Expiration Date: September 8, 1999

______________________________  ____________________________
Permittee's Signature: Date:

______________________________  ____________________________
Printed Name: License #: Date:

______________________________  ____________________________
Driller's Signature: Date: Firm or Title:

______________________________  ____________________________
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
State of Hawaii, Department of Agriculture
**SECTION 1: WELL LOCATION INFORMATION**

<table>
<thead>
<tr>
<th>Island</th>
<th>KAUAI</th>
<th>Proposed Use</th>
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<tr>
<td>Aquifer System</td>
<td>WAIMEA</td>
<td>Proposed Withdrawal</td>
<td>4300000</td>
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<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>12 ft., m.s.l.</th>
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</thead>
<tbody>
<tr>
<td>Ground Elevation</td>
<td>10 ft., m.s.l.</td>
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<tr>
<td>Cement Grout</td>
<td>150 ft.</td>
</tr>
<tr>
<td>Rock Packing</td>
<td>0 ft.</td>
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<tr>
<td>Hole Diameter</td>
<td>22 in.</td>
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<tr>
<td>Total Depth</td>
<td>220 ft.</td>
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<tr>
<td>Estimated Head</td>
<td>0 ft., m.s.l.</td>
</tr>
<tr>
<td>Calculated Aquifer Thickness</td>
<td>0 ft.</td>
</tr>
<tr>
<td>County Water Supply (Y/N ?)</td>
<td>NO</td>
</tr>
</tbody>
</table>

**Solid Casing**

<table>
<thead>
<tr>
<th>Material</th>
<th>Plastic</th>
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<tr>
<td>Designation</td>
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<tr>
<td>Length</td>
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<tr>
<td>Diameter</td>
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<td>Wall Thickness</td>
<td>0.575 in.</td>
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<table>
<thead>
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<th>Casing</th>
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<tbody>
<tr>
<td>Material</td>
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<td>Length</td>
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<td>Diameter</td>
</tr>
<tr>
<td>Wall Thickness</td>
</tr>
<tr>
<td>Openings</td>
</tr>
</tbody>
</table>

**Open Hole**

| Length | 9 ft. |
| Diameter | too deep |

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

**Well Depth**

- Theoretical Thickness of Aquifer | 0 ft.
- 1/4 Aquifer Thickness | 0 ft.
- Depth of Well below Sea Level | 210 ft., too deep *(refer to HWCPIS Section 2.2)*

**Well Casing**

- Minimum Wall Thickness | PVC
- Minimum Length of Solid Casing | 9 ft.
- Length of solid casing Provided | 170 ft., okay *(refer to HWCPIS Section 2.4 d)*

**Annular Space**

- Calculated Depth of Grouting | 7 ft.
- Depth of Grouting provided | 165 ft., okay *(refer to HWCPIS Section 2.6 c)*
- Thickness of Annular Space | 3 in., okay *(refer to HWCPIS Section 2.6 d)*
August 29, 1997

TO: Ms. Lenore Nakama
Commission of Water Resource Management

FROM: James J. Nakatani, Chairperson
Department of Agriculture

SUBJECT: WELL CONSTRUCTION BY CEATECH USA, INC.

This is in reference to a 22 August memorandum from Mr. Dean Uchida to Ms. Rae Loui concerning the application by CEATECH for well construction permits.

The Department of Agriculture gives its approval for CEATECH to construct these wells on its property. CEATECH is now completing the necessary process to secure its lease to begin aquaculture operations within the Kekaha Agricultural Park.

Aquaculture was identified as one of the designated activities for the Kekaha Agricultural Park, for which the appropriate Environmental Assessment document was prepared. The DOA does not feel that additional EA/EIS documents are required.

The CEATECH activity is part of the Governor's initiative to stimulate economic development for the area, and DOA is pleased to assist in expediting this venture.

c: Hon. Michael Wilson, Chairperson, DLNR
Mr. Dean Uchida, DLNR
Mr. Paul K. Bienfang, Sr. Vice Pres., CEATECH
TO: Ms. Lenore Nakama
Commission of Water Resource Management

FROM: James J. Nakatani, Chairperson
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c: Hon. Michael Wilson, Chairperson, DLNR
Mr. Dean Uchida, DLNR
Mr. Paul K. Bienfang, Sr. Vice Pres., CEATECH
REF:CWRM-SS

AUG 29 1997

Dear Mr. Dias:

Well Construction Permit Applications for
Ceatech Plantations Well Nos. 1 & 2 5945-01, 02
Well Construction Permit for
Sunkiss Shrimp Well (Well No. 5844-06)

We are sending you the review comments from the Land Division regarding your proposed well construction permits for the subject wells. Ceatech Well Nos. 1 & 2 are shown to be located on lands that were set aside to the Department of Agriculture (DOA) for the Kekaha Agricultural Park. As such, a letter of concurrence from DOA is required prior to issuance of the well construction permits. Please provide a copy of the letter of concurrence to our office, and we will continue to process the permit applications.

Because the Sunkiss Shrimp Well is shown to be located on lands that are leased to the Sunkiss Shrimp Company, we are able to complete the processing of the application. Enclosed are two (2) copies of your approved Well Construction Permit for the Sunkiss Shrimp Well 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. 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.

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. Please note that special conditions may simply highlight application deviations from the Standards.

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.

To validate your permit, please sign and have the contractor sign both permit originals and return one for our files. Also, copies of the aquifer pump test worksheet and the well completion report form are enclosed for your use. Please provide all the information in this packet to your well drilling contractor.

Also attached for your information is a copy of the Department of Health's review comments.

If you have any questions, please call the Commission staff at [Redacted], extension 70218.

Aloha,

MICHAEL D. WILSON
Chairperson

Enclosures
MEMORANDUM:

TO: Ms. Rae M. Loui, Deputy Director
Commission on Water Resource Management

FROM: Dean Y. Uchida, Administrator
Land Division

SUBJECT: Application by Ceatech Plantations, Inc. for Well Construction Permits, Kekaha, Kauai, Tax Map Key: 1-2-02:1 and 22

We have reviewed the three (3) well construction permit applications referenced above and have the following comments:

The proposed wells, as shown on the maps provided by the applicant, are not located within the conservation district, and consequently, a conservation district use permit is not necessary.

Proposed wells 1 and 2 are shown to be on state-owned land under the operation of Governor's Executive Order No. 3633 (copy attached) encumbering 164.353 acres that were set aside to the Department of Agriculture (DOA) for the Kekaha Agricultural Park. Therefore, approval of well sites 1 and 2 by DOA, and the governor's concurrence will be necessary. A proposed third well is shown located on the premises demised under General Lease No. S-5367 to the Sunkiss Shrimp Company, Ltd., whose approval must also be obtained.

We believe the proposed wells, should they be located on state land, would be subject to the provisions of Chapter 343 relating to environmental impacts. Environmental assessments (copies available in our office) have been prepared in the past that cover all of the proposed well sites and includes some information related to well construction. However, they lack much of the information suggested in the guide for water well development projects (copy attached) prepared by the Office of Environmental Quality Control. Because the wells
are in close proximity to each other, one environmental assessment covering all three (3) wells should suffice in complying with Chapter 343 requirements.

If well construction permits are issued, please inform the applicant to contact our office to obtain the proper land tenure agreements prior to drilling the wells.

Affirming the state’s ownership of the land on which the applicant proposes to locate the wells, we have routed the applications for permit to the Chairperson for his signature as you requested.

Should you have any questions, please contact Gary Martin at 70421.

Attachments

c:  Kauai Land Board Member
Kauai District Land Office
Executive Order No. 3633

Setting Aside Land for Public Purposes

By this Executive Order, I, the undersigned, Governor of the State of Hawaii, by virtue of the authority in me vested by Section 171-11, Hawaii Revised Statutes, and every other authority me hereunto enabling, do hereby order that the public land hereinafter described be, and the same is, hereby set aside for the following public purposes:

FOR KEKAHA AGRICULTURAL PARK, to be under the control and management of the Department of Agriculture, State of Hawaii, being that parcel of land situate at Kekaha, Waimea, Kauai, Hawaii, containing an area of 164.353 acres, TOGETHER, with the following easements:

Perpetual Non-Exclusive Access and Waterline Easement C, containing an area of 27,136 square feet; and

Perpetual Non-Exclusive Pump Station and Reservoir Easement E, containing an area of 37,858 square feet; and

Perpetual Non-Exclusive Drainage Easement J, containing an area of 263 square feet; and

Perpetual Non-Exclusive Pipeline Easement F, containing an area of 835 square feet.

All more particularly described in Exhibit "A" and delineated on Exhibit "B," both of which are attached hereto and made parts hereof, said exhibits being respectively, a survey description and survey map prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii, being designated C.S.F. No. 22,171 and dated September 12, 1994.

SUBJECT, HOWEVER, that upon cancellation of this executive order and, or in the event of non-use or abandonment of the premises or any portion thereof for a continuous period of one (1) year, the Department of Agriculture shall, within a reasonable time, restore the premises to a condition satisfactory and acceptable to the Department of Land and Natural Resources, State of Hawaii.

SUBJECT, FURTHER, to disapproval by the Legislature by two-thirds vote of either the Senate or the House of Representatives or by majority vote of both, in any regular or special session next following the date of this Executive Order.

In Witness Whereof, I have hereunto set my hand and caused the Great Seal of the State of Hawaii to be affixed.

Done at the Capitol at Honolulu this day of October, Nineteen Hundred and Ninety-four.

[Signature]
Governor of the State of Hawaii

Approved as to form:

[Signature]
September 12, 1994

KEKAHA AGRICULTURAL PARK

Kekaha, Waimea, Kauai, Hawaii


Beginning at the north corner of this parcel of land and on the southwest side of Kaumualii Highway (Hawaii Project Number DA-WR(1)), the coordinates of said point of beginning referred to Government Survey Triangulation Station "KANALOA" being 9193.23 feet North and 8654.50 feet West, thence running by azimuths measured clockwise from True South:

1. 318° 44’ 6293.06 feet along the southwest side of Kaumualii Highway, Hawaii Project No. DA-WR(1);
2. 43° 28’ 30” 97.27 feet along Substation Site B;
3. 313° 28’ 74.85 feet along Substation Site B;
4. 43° 20’ 1504.69 feet along the northwest side of the Right-of-Way to Lae-O-Kokole Lighthouse (30 ft. wide), Presidential Proclamation 827 dated December 4, 1908;
5. 146° 56’ 40” 6585.63 feet along Bonham Air Base, Governor’s Executive Order 945, Part 1;
6. 228° 44’ 647.44 feet along the remainder of the Government (Crown) Land of Waimea to the point of beginning and containing an AREA OF 164.353 ACRES.

Together with the following easements and more particularly described as follows:

PERPETUAL NON-EXCLUSIVE ACCESS AND WATERLINE EASEMENT C:

Beginning at the west corner of this easement and on the northeast side of Kaumualii Highway (Hawaii Project Number DA-WR(1)), the coordinates of said point of beginning referred to Government Survey Triangulation Station "KANALOA" being 9261.30 feet North and 8581.18 feet West, thence running by azimuths measured clockwise from True South:-

1. 230° 59' 50" 806.80 feet along the remainder of the Government (Crown) Land of Waimea;
2. 227° 20' 149.80 feet along the remainder of the Government (Crown) Land of Waimea;
3. 137° 20' 158.24 feet along the remainder of the Government (Crown) Land of Waimea;
4. 230° 00' 58.00 feet along the remainder of the Government (Crown) Land of Waimea;
5. 185° 00' 38.00 feet along the remainder of the Government (Crown) Land of Waimea;
6. 237° 00' 5.18 feet along the remainder of the Government (Crown) Land of Waimea;
7. 326° 00' 40.73 feet along the remainder of the Government (Crown) Land of Waimea;
8. 317° 20' 65.00 feet along the remainder of the Government (Crown) Land of Waimea;
9. 47° 20' 25.00 feet along the remainder of the Government (Crown) Land of Waimea;
10. 317° 20' 90.00 feet along the remainder of the Government (Crown) Land of Waimea;
11. 47° 20' 210.28 feet along the remainder of the Government (Crown) Land of Waimea;
12. 50° 59' 50" 806.69 feet along the remainder of the Government (Crown) Land of Waimea;
13. 138° 44' 15.01 feet along the northeast side of Kaumualii Highway (Hawaii Project No. DA-WR(1)) to the point of beginning and containing an AREA OF 27,136 SQUARE FEET.

PERPETUAL NON-EXCLUSIVE PUMP STATION AND RESERVOIR EASEMENT E:

Beginning at the south corner of this easement, the coordinates of said point of beginning referred to Government Survey Triangulation Station "KANALOA" being 9986.95 feet North and 7951.29 feet West, thence running by azimuths measured clockwise from True South:-

1. 125° 00' 86.00 feet along the remainder of the Government (Crown) Land of Waimea;
2. 138° 00' 122.98 feet along the remainder of the Government (Crown) Land of Waimea;
3. 230° 00' 177.92 feet along the remainder of the Government (Crown) Land of Waimea;
4. 310° 00' 131.50 feet along the remainder of the Government (Crown) Land of Waimea;
5. 270° 00' 58.00 feet along the remainder of the Government (Crown) Land of Waimea;
6. 345° 00' 30.00 feet along the remainder of the Government (Crown) Land of Waimea;
7. 57° 00' 122.00 feet along the remainder of the Government (Crown) Land of Waimea;
8. 5° 00' 38.00 feet along the remainder of the Government (Crown) Land of Waimea;
9. 50° 00' 58.00 feet along the remainder of the Government (Crown) Land of Waimea to the point of beginning and containing an AREA OF 37,858 SQUARE FEET.
PERPETUAL NON-EXCLUSIVE DRAINAGE EASEMENT J:

Beginning at the north corner of this easement, the coordinates of said point of beginning referred to Government Survey Triangulation Station "KANALOA" being 10,256.21 feet North and 7943.04 feet West, thence running by azimuths measured clockwise from True South:-

1. 320° 00' 10.00 feet along the remainder of the Government (Crown) Land of Waimea;
2. 50° 00' 25.39 feet along the remainder of the Government (Crown) Land of Waimea;
3. 130° 00' 10.15 feet along the remainder of the Government (Crown) Land of Waimea;
4. 230° 00' 27.15 feet along the remainder of the Government (Crown) Land of Waimea to the point of beginning and containing an AREA OF 263 SQUARE FEET.

PERPETUAL NON-EXCLUSIVE PIPELINE EASEMENT F:

Beginning at the west corner of this easement, the coordinates of said point of beginning referred to Government Survey Triangulation Station "KANALOA" being 10,121.88 feet North and 7811.47 feet West, thence running by azimuths measured clockwise from True South:-

1. 237° 00' 12.21 feet along the remainder of the Government (Crown) Land of Waimea;
2. 292° 00' 80.00 feet along the remainder of the Government (Crown) Land of Waimea;
3. 22° 00' 10.00 feet along the remainder of the Government (Crown) Land of Waimea;

-4-
4. 112° 00' 87.00 feet along the remainder of the Government (Crown) Land of Wāimea to the point of beginning and containing an AREA OF 835 SQUARE FEET.

SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII

By: Donald T. Oyama
Land Surveyor

Compiled from map furn. by
R. M. Towill Corporation and
other Govt. Survey Records.
DRAFT CONTENT REQUIREMENT FOR WATER WELL DEVELOPMENT PROJECTS.

Any Environmental Assessment prepared under the authority of HRS 343 in relation to a water well development project should include the following items and discuss the following issues.

1. **Orientation Maps**

   A large-scale map of the proposed site, along with a regional map that includes the well location, relevant aquifer boundaries, surrounding wells, nearby streams and wetlands, prevailing groundwater flow paths and any points or regions of known contamination. Orientation maps should also locate points of potential contamination such as landfills, cesspools, hazardous waste sites, dry wells and injection wells. Contours of water levels and chloride concentrations in the area of interest can also be helpful.

2. **Aquifer Status**

   A description of the aquifer's status including the following:

   * Sustainable yields or other measures of water availability
   * Authorized water use by the Commission on Water Resource Management (for Water Management Areas only)
   * Data table presenting the following information as appropriate

   - Current water use totals, including subtotals for individual users
   - Current installed capacity including subtotals for individual wells and/or groups of wells.
   - Pending installed capacity and/or use for the proposed well and subtotals for individual wells and/or groups of wells within the aquifer.

   **NOTE:** Format suggestions and sample data tables for aquifer status data are contained in appendix #1.

3. **Contamination Analysis**

   A record of contamination problems in the aquifer due to saltwater intrusion, heavy metals, volatile and non-volatile organic compounds, biological agents, and radioactivity. If contamination exists, the sources and duration of the contamination should be listed. Water quality data from nearby wells should be presented as well as any anticipated need for treatment or filtering systems. Any hazardous materials used and/or produced during drilling and treatment should be described. The method of handling these hazardous materials should also be disclosed.
4. Hydrologic Impact Analysis

A discussion of the potential effects the well development may have on affiliated groundwater and surface water (e.g. streams and wetlands). Relevant hydrologic, physical, chemical, and biological data for potentially affected waters should be included. If potential impacts exist, a monitoring program for the surface waters should be included. A description of the watershed and groundwater recharge area should also be provided.

NOTE: See appendix #2 for sample description.

The EA should include pump test data on water level, extraction rates, and water quality parameters. Similar data from nearby wells should also be included. The precise criteria used to determine if the well should be converted to production should be described. Any provisions for future use and monitoring of wells not placed into production should also be described.

5. Biological Assessment

A floral and faunal survey for sites in biologically sensitive areas.

6. Archaeological and Cultural Impact Assessment

A description of the archaeological and cultural significance of the region, including an on-site survey as well as consultations with Native Hawaiian groups such as DHHL, OHA and local community associations. (The Environmental Council is developing a Cultural Impact Assessment Protocol that when completed, could be used for this purpose.)

7. Financial and Institutional Arrangements

In some instances, a well is developed by private financing, the transfer of public lands to government or private developers, or in return for a water allocation credit to supply an urban development. The EA should include a full discussion of any institutional, financial or land use arrangements or commitments related to developing the well and delivering water to end users.

These arrangements may include the formation of public utility companies and subsequent rate-setting, the establishment of county water commitments, the co-funding of state or county water system development, an executive order or other set-aside of state lands, and purchase of land or easements by public entities.

All permits or governmental approvals required to fulfill these commitments should be listed.
8. Watershed and Land Use Analysis

A discussion of how waters from the well will be used, and an analysis of how the proposed well development may affect land and water uses on the island and in the region. The analysis should include a discussion of the following:

* Hawaii State Water Plan and its component parts
* County General, Development, and/or Community Plans
* Plans for future water development within the aquifer
* Any related water, wastewater, drainage or erosion control plans
* Soil and Water Conservation Plans for agricultural lands
* Historical water supply and demand figures for the region
* How the well may affect existing water sources
* Any secondary or cumulative impacts caused by promoting land uses that alter the hydrology of the source and/or end-use area
* An assessment of the well's impact on the major land owners in the region and a declaration if ceded lands are involved.
* An assessment of any impact the well development may have on small landowners or water users including farmers and kuleana residents.
* A description of impacts associated with the well's permanent production facilities including pumps, distribution pipelines, control devises, storage facilities, access roads and accessory structures

9. Alternative Analysis

A list of alternatives to new groundwater development and discussion of their related costs and benefits. The list should include but not be limited to wastewater reuse, rainfall catchment, conservation, and existing potable and nonpotable water supplies.

Footnotes:
1. New injection wells and dry wells are prohibited from within 1/4 mile of a drinking water well. New water wells should not be situated in areas that have a significant need for injection wells or drywells.
Sustainable Yield

Sustainable yield policies for basal aquifers involve trade-offs between groundwater extraction rates and aquifer water levels. The selected extraction rate implies acceptance of the affiliated equilibrium head \( (h_e) \), the water level at which the aquifer stabilizes under pumping at sustainable yield levels.

Equilibrium head is usually less than pre-development water levels or initial head \( (h_i) \). For comparative purposes, it is helpful to attach values of \( h_e \) and \( h_i \) to sustainable yield figures. Groundwater extraction can then be discussed in terms of its relationships with sustainable yields and water levels.

Data Subtotals and Grouping

To assure the clarity of information presented in the EA, tables for the following categories of data should be grouped by user/operator and landowner.

Categories for Data Tables in the EA

* Current water use totals
* Current installed capacity
* Pending installed capacity
* Authorized water use

To assist in spatial analysis, subtotals should also be grouped for aquifer sub areas and/or water quality regimes (such as zones of varying recharge of extraction intensity or chloride concentration).

A sample table for the display of this data is presented in the next page.
Aquifer Status Data

Sustainable Yield = 40 mgd
Initial head = 20 feet
Equilibrium head = 18 feet

Authorized Water Use (for water management areas only) = 36 mgd

Table 1: Overall Aquifer Status Data in million gallons per day

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<th>Land Owner</th>
<th>Authorized Water Use (Permitted by CWRM)</th>
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<th>Planned/Pending (P)</th>
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<td>Pump Capacity*</td>
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<td>Total</td>
<td>36</td>
<td>40</td>
<td>26</td>
<td>-2</td>
</tr>
</tbody>
</table>

Table 2: Aquifer Status Data for Landowner C in million gallons per day

<table>
<thead>
<tr>
<th>Well Site</th>
<th>Authorized Water Use (Permitted by CWRM)</th>
<th>Existing (E)</th>
<th>Planned/Pending (P)</th>
<th>Potential Future (E + P)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pump Capacity</td>
<td>Proposed Use</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Average Use</td>
<td>Pump Capacity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mauka</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Makai</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>-5</td>
</tr>
<tr>
<td>Central</td>
<td>10</td>
<td>10</td>
<td>7</td>
<td>-5</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>25</td>
<td>15</td>
<td>-10</td>
</tr>
</tbody>
</table>

Notes:
* Total amount of water a well pump is capable of removing from the ground under ideal conditions in a 24-hour period. This number should be the same as the "rated pump capacity or installed pump capacity" as reported by the well owner to the CWRM.

** Average daily water use based upon water meter readings as reported by the well owner to the CWRM. If possible, the average should be based on 5 years of data.
SAMPLE DESCRIPTION LIST OF A WATERSHED AND GROUNDWATER RECHARGE AREA

Below you will find a list of characteristics that should be discussed in the description of a watershed and groundwater recharge area.

Watershed:
1. Drainage area boundaries
2. Drainage networks and patterns
3. Groundwater discharges as sources of surface water flows
4. Surface water flow and habitat characteristics
   a. timing, magnitude, duration, frequency of groundwater-sourced baseflows
   b. relationships between baseflows and aquatic and riparian habitats and communities,
   c. water quality
   d. water uses (e.g., ditch or'auwai systems)

Recharge Area:
1. Boundaries
2. Geologic structure
3. Groundwater flow patterns
4. Overlying land and water uses, and runoff patterns.
5. Relationships between recharge rates and patterns, and climatic variations
6. Relationships between proposed groundwater extraction and associated activities, and aquifer water levels
7. Storage volumes, other wells, discharges to surface and coastal waters, and water quality parameters
TO: Mr. Michael D. Wilson, Chairperson
    Board of Land and Natural Resources

FROM: Dean Uchida, Administrator
      Land Division

SUBJECT: Request for Chairperson's Signature as Landowner

As you know, each application for permits issued by the Commission on Water Resource Management requires the signature of the landowner of the property involved. On behalf of the applicant, may we have your signature on the attached permit applications which entail the use of State-owned land?

I have attested to the State's ownership of the property covered in the applications, as indicated below. Your signature would allow the permit applications to be filed and processed. It would not represent an endorsement of the applicant's proposal or an approval for the use of State land; both approvals would be sought by the applicant under separate actions later.

Please return this memo and the permit applications to the Water Commission when you're through.

Attach.

________________________________________________________________________

AFFIRMATION

I hereby affirm that the State of Hawaii is the owner of that certain parcel of land identified as:

1-2-02: Por. 1 (wells 1 & 2)

TMK 1-2-02:22 located at Kekaha on the island of Kauai.

By [Signature]
Land Division Administrator

Dated AUG 22 1997
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, attach required maps, and send the completed application & two (2) copies to the Commission on Water Resource Management. This application must be accompanied by a non-refundable filing fee of $25.00 payable to the Department of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance in completing this application, please call the Commission's Regulation Branch at:

1. APPLICANT: (circle primary contact a, b, or c) Primary Fax: [ redacted ]
   (a) WELL OWNER
   Firm/Name: Ceatech Plantations, Inc.
   Contact Person: Ernest K. Dias Ph: [ redacted ]
   (b) LANDOWNER
   Firm/Name: State of Hawaii
   Contact Person: Ph: [ redacted ]
   (c) CONTRACTOR
   Firm/Name: [ redacted ]
   Contact Person: Ph: [ redacted ]
   Contractor's License No. [ redacted ]

2. WELL LOCATION/NAME: Ceatech Plantations Well No. 1 Island: Kauai
   Address: Kekaha, Hawaii
   Tax Map Key 1-2-2:1

3. (a) PROPOSED WORK: [ ] Drill New Well [ ] Deepen
   [ ] Modify Existing Well [ ] Redrill
   [ ] Abandon/Seal
   * Be sure to complete and submit well abandonment report upon completion of work.
   [ ] Install New Pump [ ] Replace Pump
   (b) WELL TYPE:
   [ ] Dog [ ] Bored [ ] Driven [ ] Drilled [ ] Radial
   * Is this well a part of a battery of wells? [ ] Yes [ ] No
   (Briefly describe and fill in the diagram on the back of this form.)

4. PROPOSED PUMP INFORMATION:
   Rated Pump Capacity: 3,000 gallons per minute
   Pump Type: [ ] Deep Well Turbine [ ] Rotary
   [ ] Submersible [ ] Rotary-Displacement [ ] Reciprocating
   [ ] Centrifugal [ ] Rotary-Gear [ ] Impulse
   Motor: [ ] Diesel [ ] Gas
   [ ] Electric, rated horsepower:
   If Pump Replacement, Existing Pump Capacity: gallons per minute

5. PROPOSED USE:
   [ ] Municipal (including hotels, stores, etc.) [ ] Industrial
   [ ] Domestic (individual, noncommercial water sys.) [ ] Other:
   [ ] Irrigation (crop) [ ] Dwelling Units [ ] Shrimp Farm Hatchery
   [ ] Military [ ] Acres

6. (a) PROPOSED AMOUNT OF WITHDRAWAL:
   4,300,000 gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   [ ] Flow-meter
   [ ] Open-pipe [ ] Orifice Plate [ ] Weir

7. PENDING ACTIONS:
   [ ] CWWA [ ] SMA [ ] EIS [ ] EA
   [ ] NONE [ ] Other(explain)
   Completion Date:

8. REMARKS, EXPLANATIONS:
   The well will develop saline water (30 PPT or greater)
   for use by the shrimp farm. The finished well depth will depend on salinity and yield.

   (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 pump capacity.

Well Owner: Ceatech Plantations, Inc
Signature: [ redacted ]
Date: 8-1-97

Landowner: State of Hawaii
Signature: [ redacted ]
Date: [ redacted ]

Contractor: [ redacted ]
Signature: [ redacted ]
Date: [ redacted ]

For Official Use Only:
Date Received:
Date Accepted:
Field Checked By:
Date:

Aquifer System Name: KEKAHA/WHIPEA
State Well No: SW-37

3 Jan 97 WCPIA Form
9. PROPOSED WELL SECTION

Elevation at top of casing
12 ft, msl

Cement Grout: 165 ft

Rock Packing: None ft

Hole Diameter: 24 in.

Total Depth: 220 ft

Ground Elevation: 10 ft, msl

Solid Casing:
Material: PVC
Length: 170 ft
Diameter: 18 in.
Wall thickness: 0.575 in.

Casing: □ Perforated  □ Screen
Material: PVC
Length: 50 ft
Diameter: 18 in.
Wall thickness: 0.575 in.
Openings: 33.0 sq. in./ft.

Open Hole:
Length: none 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.
APPLICATION FOR PERMIT

Well Construction or Pump Installation

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, attach required maps, and send the completed application & two (2) copies to the Commission on Water Resource Management. This application must be accompanied by a non-refundable filing fee of $25.00 payable to the Department of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance in completing this application, please call the Commission’s Regulation Branch at

1. APPLICANT: (circle primary contact [a, b, or c])
   (a) WELL OWNER
   FirmName: Ceatech Plantations, Inc.
   Contact Person: Ernest K. Dias
   Primary Fax: ________

   (b) LANDOWNER
   FirmName: State of Hawaii
   Contact Person: ________
   Ph: ________

   (c) CONTRACTOR
   FirmName: ________
   Contact Person: ________
   Ph: ________
   Address: ________

2. WELL LOCATION/NAME: Ceatech Plantations Well No. 2
   Island: Kauai
   Address: Keahe, Hawaii
   Tax Map Key: 1-2-2-2:1

   Attach the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale 1"=24,000), and (b) a property tax map, showing well location referenced to established property boundaries.

3. (a) PROPOSED WORK: 
   • Drill New Well
   • Deepen
   • 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:
   • Dug
   • Bored
   • Driven
   • Drilled
   • Radial

   Is this well a part of a battery of wells? □ Yes □ No
   (Briefly describe and fill in the diagram on the back of this form.)

4. PROPOSED PUMP INFORMATION: Rated Pump Capacity: 3,000 gallons per minute
   Pump Type: 
   • Deep Well Turbine
   • Rotary
   • Submersible
   • Centrifugal
   If Pump Replacement, Existing Pump Capacity: ________ gallons per minute
   Motor: 
   • Diesel
   • Gas
   • Electric, rated horsepower: ________

5. PROPOSED USE: 
   □ Municipal (including hotels, stores, etc.) □ Industrial
   □ Domestic (individual, noncommercial water sys.) □ Dwelling Units ________
   □ Irrigation (crop) □ Acres ________
   □ Military
   □ Other: Shrimp Farm Hatchery

6. (a) PROPOSED AMOUNT OF WITHDRAWAL: 4,300,000 gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   • Flow-meter
   • Open-pipe
   • Orifice Plate
   • Weir

7. PENDING ACTIONS: 
   □ CDUA □ SMA □ EIS □ EA □ NONE □ Other(explain)
   Completion Date: ________

8. REMARKS, EXPLANATIONS: The well will develop saline water (30 PPT or greater) for use by the shrimp farm. The finished well depth will depend on salinity and yield

   (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 comparative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

Well Owner: Ceatech Plantations, Inc.
Signature: ________
Date: ________

Landowner: State of Hawaii
Signature: ________
Date: ________

Contractor: ________
Signature: ________
Date: ________

For Official Use Only:
Date Received: ________
Date Accepted: ________
Field Checked By: ________
Date: ________
Longitude: ________
Latitude: ________
Aquifer System Name: ________
State Well No: ________

8/19/97
3 Jan 97 WCPIA Form
8. Remarks, Explanations (cont'd): __________________________________________________

9. PROPOSED WELL SECTION

Elevation at top of casing: 12 ft., msl.

Cement Grout: 165 ft.

Rock Packing: None ft.

Hole Diameter: 24 in.

Total Depth: 220 ft.

Ground Elevation: 10 ft., msl

Solid Casing:
- Material: PVC
- Length: 170 ft.
- Diameter: 18 in.
- Wall thickness: 0.575 in.

Casing: ■ Perforated □ Screen
- Material: PVC
- Length: 50 ft.
- Diameter: 18 in.
- Wall thickness: 0.575 in.
- Openings: 33.6 sq. in./L.F.

Open Hole:
- Length: none ft.
- Diameter: N/A in.

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

FROM: Lenore

SUBJECT: DOH Wastewater Branch Review Comments For Well No. 5945-01

Called Lori Kajiwara, DOH Wastewater Branch, on 8/26/97. We sent request for comments for 3 Kauai wells (5945-01 & 02, 5844-06) and only received comments back for 5945-02 & 5844-06. She checked the TMK for 5945-01 and said that they would have no comments or objections on the WCA/PIPA (similar to 5945-02, which is on the same parcel).
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  
Ceatech Well No. 1 (Well No. 5945-01)

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 1, 1997.

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

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 not located near the proposed well site (information attached).

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

No comments/objections

Contact Person: Bill Wong  
Signed: Bill Wong  
Phone:  
Date: 8/13/97
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
        Ceatech Well No. 2 (Well No. 5945-02)

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 1, 1997.

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 [redacted].

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 a year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-29.

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

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

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

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

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

[ ] No comments/objections

Contact Person: Bill Wong

Signed: Bill Wong

Phone: [redacted]

Date: 8/15/97
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

Ceatech Well No. 2 (Well No. 5945-02)

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 1, 1997.

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 [Redacted]

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 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 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 [Redacted] 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: Lani N. Kajiwara

Signed: Lani N. Kajiwara

Date: 8-13-97
IWS DATA PROFILE --- COUNTY OF KAUA'I

TMK #: 1-02-002:001  FILE #: 2596-
OWNER: KAUAI COUNTY
LOT LOCATION: 0 LANDFILL, MI. 28.8 KAUMUALII HWY KEKaha

REMARK:

********** DATES **********
SUBMIT DATE: 10/08/93  PLAN APPROVAL DATE: 10/18/93
REVIEWED BY: EB  INSpection DATE: 12/02/93
SYSTEM APP'D DATE: 03/14/95

***** TECHNICAL DATA *****
TREATMENT TYPE: SEPTIC TANK  DISPOSAL Via: TRENCH
USE FOR: 855 GPD  DESIGNED BY: HARDING LAWSON
PERCOLATION: 8 min/in  CAPACITY: 1500 gal.

PRESS ANY KEY TO CONTINUE.
Mr. Ernest K. Dias  
Sunkiss Shrimp Co., Ltd.

Dear Mr. Dias:

Well Construction / Pump Installation Permit Applications for  
Well Nos. 5844-06 & 5945-01, 02

We have received your well construction permit applications and filing fees for the Sunkiss Shrimp Well (Well No. 5844-06) and the Ceatech Well Nos. 1 & 2 (Well Nos. 5945-01 & 02). By an August 6, 1997 telephone conversation with Ron Bailey, the applications have been amended to indicate that you are also applying for a pump installation permit. Applying for a pump installation permit on the same application will expedite the permitting process for your well development project.

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.

We have forwarded the applications to the Chairperson of the Department of Land and Natural Resources for his signature as landowner at the proposed water source. Upon receipt of the signed applications, we will continue processing the applications.

Lastly, we note that you have not yet selected a contractor to do the work. Be advised that Section 1.6 of the Hawaii Well Construction & Pump Installation Standards (January 1977) states:

*All work required in the construction, modification, or sealing of wells shall be performed by well drillers (with a C-57 license) or general contractors (with a C license) licensed by the Hawaii Department of Commerce and Consumer Affairs, Division of Professional and Vocational Licensing.*
All work required in the installation of pumps and pumping equipment shall be performed by well drillers with a C-57 license, pump installers with a C-57a license, or general contractors with an A license.

Upon receipt of the landowners signature on the applications, we will continue processing your applications without the contractor's signature; however, we will require your licensed contractor to sign the official permit document prior to beginning any work.

If you have any questions about your permit application, please contact Lenore Nakama of the Commission staff at [redacted].

Sincerely,

[Signature]

RAE M. LOUI
Deputy Director

LN: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
   Createch Well No. 1 (Well No. 5945-01)

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 1, 1997.

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 [Contact information].

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 not located near the proposed well site (information attached).

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

[ ] No comments/objections

Contact Person: ____________________________    Phone: ____________________________

Signed: ____________________________    Date: ____________________________
TO: 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

Ceatech Well No. 2 (Well No. 5945-02)

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 1, 1997.

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 [Blank].

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.

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[ ] 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: ___________________________ Phone: _______________

Signed: ___________________________ Date: _______________
TO:        Mr. Dean Uchida, Administrator  
           Land Division  

FROM:  Rae M. Loui, Deputy Director  
       Commission on Water Resource Management  

SUBJECT: Request for Chairperson's Signature as Landowner

The attached original permit applications entail the use of State-owned land and, accordingly, requires the signature of the Chairperson as the landowner. Here, we are requesting your help in affirming the State's ownership of the property and, thereafter, routing the applications to the Chairperson for his signature. (We have enclosed the appropriate transmittal memo that contains the affirmation statement.)

Please note that the Chairperson's signature on the permit applications complete the applications and allow them to be accepted for processing by the Commission. The signature neither represents an endorsement of the applicant's proposal nor an approval for the use of State land; both approvals would be sought by the applicant under separate actions later.

Please inform us if the proposed wells are in the Conservation District and, if so, whether the requirements of Chapter 343 have been met.

Lastly, please inform us of the contact person at Land Division who is responsible for transmitting the attached original applications to the Chairperson's Office.

LN:ss  
Attachments
<table>
<thead>
<tr>
<th>F Y R</th>
<th>APPD</th>
<th>SRC/CTR</th>
<th>COST</th>
<th>PROJECT</th>
<th>PH ACT</th>
<th>AMOUNT</th>
<th>NAME/DESCRIPTION (HANG INPUT)</th>
</tr>
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<tbody>
<tr>
<td>G. 00</td>
<td>000</td>
<td>C 1026</td>
<td></td>
<td></td>
<td></td>
<td>(1) 75.00</td>
<td>CEA Tech USA, Hawaii Inc.</td>
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<td></td>
<td></td>
<td></td>
<td>TOTAL</td>
<td>75.00</td>
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</table>

REMARKS:
LINE (1) Well No. 5844-06 (WCPA/PIPA)
LINE (2) Well No. 5945-01, 02 (WCPA/PIPA)
LINE (3)  
LINE (4)  

DATE: 8/7/97
APPLICATION FOR PERMIT

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

Copy

APPLICATION FOR PERMIT

1. APPLICANT: (circle primary contact [a, b, or c])
   a) Primary Fax: _______
   (b) LANDOWNER
   FirmName: Ceatech Plantations, Inc.
   Contact Person: Ernest K. Dias
   Owner: Kauai, Hawaii
   License No.: C-57a, Gen.'A'
   Ph: _______
   Address: Kekaha, Hawaii
   Contract Person: Contact
   Address: _______
   (c) CONTRACTOR
   to be competitively bid
   FirmName: _______
   Contact Person: _______
   Address: _______
   Contractor's License No.: _______

2. WELL LOCATION/NAMES: Ceatech Plantations Well No. 1
   Island: Kauai
   Address: Kekaha, Hawaii
   Text Map Key: 1-2-2-1

3. (a) PROPOSED WORK:
   a) Drill New Well  
   b) Deepen  
   c) Modify Existing Well  
   d) Redrill  
   e) Abandon/Seal  
   f) Install New Pump  
   g) Modify Pump  
   * Be sure to complete and submit well abandonment report upon completion of work.
   (b) WELL TYPE:
   a) Lug  
   b) Bored  
   c) Driven  
   d) Drilled  
   e) Radial
   Is this well a part of a battery of wells?  
   Yes  
   No

4. PROPOSED PUMP INFORMATION:
   a) Rated Pump Capacity: _______ gallons per minute
   (b) Motor:
      a) Deep Well Turbine  
      b) Rotary  
      c) Submersible  
      d) Centrifugal  
      e) Reciprocating  
      f) Impulse  
      g) Electric, rated horsepower:
   If Pump Replacement, Existing Pump Capacity: _______ gallons per minute

5. PROPOSED USE:
   a) Municipal (including hotels, stores, etc.)  
   b) Industrial  
   c) Domestic (individual, noncommercial water sys.)  
   d) Irrigation (crop)  
   e) Acres  
   f) Military  
   g) Other: Shrimp Farm Hatchery

6. (a) PROPOSED AMOUNT OF WITHDRAWAL: 4,300,000 gallons per day
   (b) METHOD OF FLOW MEASUREMENT:  
      a) Flow-meter  
      b) Open-pipe  
      c) Orifice Plate  
      d) Weir

7. PENDING ACTIONS:
   a) CDUA  
   b) SMA  
   c) EIS  
   d) EA  
   e) NONE  
   f) Other (explain)
   Completion Date: _______

8. REMARKS, EXPLANATIONS:
   The well will develop saline water (30 PPT or greater) for use by the shrimp farm. The finished well depth will depend on salinity and yield

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: Ceatech Plantations
Landowner: State of Hawaii
Contractor: _______

Signature: _______
Date: _______

For Official Use Only:
Date Received: _______
Date Accepted: _______
Field Checked By: _______
Date: _______
Longitude: _______
Latitude: _______
Aquifer System Name: _______
State Well No.: _______

9-3-97 WQIA Form

$1641 Amended for telecomm w/ Ron Bailer to include PIFA. (w)
8. Remarks, Explanations (cont’d)  

9. PROPOSED WELL SECTION

<table>
<thead>
<tr>
<th>Elevation at top of casing</th>
<th>12 ft. msl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement Grout</td>
<td>165 ft.</td>
</tr>
<tr>
<td>Rock Packing</td>
<td>None</td>
</tr>
<tr>
<td>Hole Diameter</td>
<td>24 in.</td>
</tr>
<tr>
<td>Total Depth</td>
<td>220 ft.</td>
</tr>
</tbody>
</table>

| Ground Elevation | 10 ft. msl |

<table>
<thead>
<tr>
<th>Solid Casing</th>
<th>PVC</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>PVC</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>170 ft</td>
<td></td>
</tr>
<tr>
<td>Diameter</td>
<td>18 in.</td>
<td></td>
</tr>
<tr>
<td>Wall thickness</td>
<td>0.575 in</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Casing</th>
<th>■ Perforated</th>
<th>☐ Screen</th>
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</thead>
<tbody>
<tr>
<td>Material</td>
<td>PVC</td>
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<tr>
<td>Length</td>
<td>50 ft</td>
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<tr>
<td>Diameter</td>
<td>18 in.</td>
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</tr>
<tr>
<td>Wall thickness</td>
<td>0.575 in.</td>
<td></td>
</tr>
<tr>
<td>Openings</td>
<td>33.0 sq. in./F.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Open Hole</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>none ft</td>
</tr>
<tr>
<td>Diameter</td>
<td>N/A in.</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.*
APPLICATION FOR PERMIT

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

APPLICATION FOR PERMIT

Well Construction or [X] Pump Installation
7-30-97

Instructions: Please print in ink or type, attach required maps, and send the completed application & two (2) copies to the Commission on Water Resource Management. This application must be accompanied by a non-refundable filing fee of $25.00 payable to the Department of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance in completing this application, please call the Commission’s Regulation Branch at.

1. APPLICANT: (circle primary contact[a, b, or c] or Primary Fax: [redacted]
(a) WELL OWNER
Firm/Name: Ceatech Plantations, Inc.
Contact Person: Ernest K. Dias
(b) LANDOWNER
Firm/Name: State of Hawaii
Contact Person: Ph.
Address ___________________

(c) CONTRACTOR
to be competitively bid
Contractor’s License No. (Please circle type: C-57, Gen.'C', or C-57a, Gen.'A')
Address ____________________

2. WELL LOCATION/NAME: Ceatech Plantations Well No. 2
Island: Kauai
Address: Kekaha, Hawaii
Fax: 666-1234

Tax Map Key

Attach the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale 1"=24,000), and (b) a property tax map, showing well location referenced to established property boundaries.

3. (a) PROPOSED WORK: [ ] Drill New Well [ ] Deepen
[ ] Modify Existing Well [ ] Redrill
[ ] Abandon/Seal *
[ ] Install New Pump
[ ] Modify Pump
[ ] Replace Pump

* Be sure to complete and submit well abandonment report upon completion of work.

(b) WELL TYPE:
[ ] Dog 
[ ] Bored
[ ] Driven
[ ] Drilled
[ ] Radial

Is this well a part of a battery of wells? [ ] Yes [ ] No

(Briefly describe and fill in the diagram on the back of this form.)

4. PROPOSED PUMP INFORMATION: Rated Pump Capacity: 3,000 gallons per minute

Pump Type:
[ ] Deep Well Turbine
[ ] Rotary
[ ] Propeller
[ ] Diesel
[ ] Submersible
[ ] Rotary-Displacement
[ ] Reciprocating
[ ] Gas
[ ] Centrifugal
[ ] Rotary-Gear
[ ] Impulse
[ ] Electric, rated horsepower: _______
[ ] Other:

If Pump Replacement, Existing Pump Capacity:

Motor:
[ ] Deep Well Turbine
[ ] Rotary
[ ] Propeller
[ ] Diesel
[ ] Submersible
[ ] Rotary-Displacement
[ ] Reciprocating
[ ] Gas
[ ] Centrifugal
[ ] Rotary-Gear
[ ] Impulse
[ ] Electric, rated horsepower: _______
[ ] Other:

5. PROPOSED USE:
[ ] Municipal (including hotels, stores, etc.)
[ ] Industrial
[ ] Domestic (individual, noncommercial water sys.)
[ ] Dwelling Units
[ ] Irrigation (crop)
[ ] Acres
[ ] Other: Shrimp Farm Hatchery
[ ] Military

6. (a) PROPOSED AMOUNT OF WITHDRAWAL: 4,300,000 gallons per day

(b) METHOD OF FLOW MEASUREMENT:
[ ] Flow-meter
[ ] Open-pipe
[ ] Orifice Plate
[ ] Weir

7. PENDING ACTIONS:
[ ] COFA [ ] SMA [ ] EIS [ ] EA

[ ] NONE [ ] Other (explain)
Completion Date: __________

8. REMARKS, EXPLANATIONS:
The well will develop saline water (30 PPT or greater) for use by the shrimp farm. The finished well depth will depend on salinity and yield

(IIf 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: Ceatech Plantations, Inc.
Signature: __________ Date: 8-1-97

Landowner: State of Hawaii
Signature: __________________________ Date: __________________

Contractor: _________________________ Date: __________________

For Official Use Only:
Date Received: __________________
Date Accepted: __________________
Date Checked By: __________________
Longitude: ____________________
Latitude: ____________________
Aquifer System Name: ____________________
State Well No. ____________________
3 Jan 97 WCPR Form
9. PROPOSED WELL SECTION

- **Elevation at top of casing:** 12 ft., msl.
- **Cement Grout:** 165 ft.
- **Rock Packing:** None
- **Hole Diameter:** 24 in.
- **Total Depth:** 220 ft.
- **Ground Elevation:** 10 ft., msl

**Solid Casing:**
- **Material:** PVC
- **Length:** 170 ft.
- **Diameter:** 18 in.
- **Wall thickness:** 0.575 in.

**Casing:**
- **Material:** PVC
- **Length:** 50 ft.
- **Diameter:** 18 in.
- **Wall thickness:** 0.575 in.
- **Openings:** 33.0 sq. in./ft.

**Open Hole:**
- **Length:** None
- **Diameter:** N/A

*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.*