<table>
<thead>
<tr>
<th>FROM: RYAN</th>
<th>DATE:</th>
<th>SUSPENSE DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>TO: ANAKALEA, P.</td>
<td>TO: KUNIMURA, I.</td>
<td>FOR: Approval Signature Information</td>
</tr>
<tr>
<td>CHING, F.</td>
<td>NAKAMA, L.</td>
<td></td>
</tr>
<tr>
<td>DANBARA, S.</td>
<td>NAKANO, D.</td>
<td></td>
</tr>
<tr>
<td>FUJII, N.</td>
<td>OHYE, M.</td>
<td></td>
</tr>
<tr>
<td>GOODING, K.</td>
<td>SAKODA, E.</td>
<td></td>
</tr>
<tr>
<td>HARDY, R.</td>
<td>SUBIA, S.</td>
<td></td>
</tr>
<tr>
<td>HIGA, D.</td>
<td>SWANSON, S.</td>
<td></td>
</tr>
<tr>
<td>ICE, C.</td>
<td>UYENO, D.</td>
<td></td>
</tr>
<tr>
<td>IMATA, R.</td>
<td>YODA, K.</td>
<td></td>
</tr>
<tr>
<td>YOSHINAGA, M.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- PLEASE: See Me
  - 1 Review & Comment
  - 2 Type Final
  - 3 Information
  - 4 File
  - Xerox copies

- WELL NUMBER 3608-14
- WELL NAME Nielsen
- WELL CONSTRUCTION / PUMP INSTALLATION

ATTACHMENTS FOR WELL CONSTRUCTION PERMIT:
1. COVER LETTER
2. PERMIT (2x)
3. SDWB
4. WWB
5. CBW
6. HEER
7. LD
8. HP
9. OCCL
10. SMA
11. WELL CHECK PRINTOUT

TO BE SENT TO APPLICANT

FOR OFFICE USE ONLY

use documentation.
December 15, 2005

Mr. Rod Diamond
Diamond Construction and Water Well Drilling
HC#3 Box 14073
Keeau, HI 96749

Dear Mr. Diamond:

Well Construction Permit
Nielsen Well (Well No. 3688-14)

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

Special Conditions

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

Please refer to the Permit Processes Worksheet (transmitted with your acknowledgement letter) for further information regarding the process of drilling a well and installing a pump.

No withdrawal of water shall be made other than for testing purposes until a certificate of pump installation completion has been issued by the Commission.

Please sign both permit originals and return one for our files. For copies of the aquifer pump test worksheet, please call staff or visit www.state.hi.us/dlnr/cwrmlforms.htm.

IMPORTANT - Drilling work shall not commence until a fully signed permit is returned to the Commission. The permit shall be prominently displayed or made available at the construction site during construction. Be advised that you may be subject to fines of up to $5,000 per day for any violations of your permit conditions starting from the permit approval date.

Finally, with the resolution of the driller's licensing requirement, we officially accepted your application as complete on November 8, 2005.
If you have any questions, please call Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), 984-2400 (Maui), or 1-800-468-4644 (Lanai & Molokai), extension 70255.

Sincerely,

Peter T. Young
Chairperson

Enclosures

c: Greg Neilsen (with applicable comments – DOH SDWB, WWB, CWB)
    USGS
    Hawaii DWS
WELL CONSTRUCTION PERMIT

Nielsen Well, Well No. 3688-14

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

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of Nielsen Well (Well No. 3688-14) at TMK 1-5-052: 100, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

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

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

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

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

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

6. In the event that subsurface cultural remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and immediately contact the Department of Land and Natural Resources’ Division of Historic Preservation.

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

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

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

10. The well construction permit application and any related staff submittal approved by the Commission are incorporated by this permit by reference. This permit is also subject to the HWCPIS. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

11. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than the date the permit expires.

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

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

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

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

W. Ray Handy
for

Date of Approval: December 3, 2005
Expiration Date: December 3, 2007

PETER T. YOUNG, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I have signed, dated, and returned the permit to the Commission. I understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5,000 per day starting from the permit date of approval.

Driller's Signature: ___________________________ C-57 License #: C-23379 Date: ___________________________

Printed Name: Rod Diamond Firm or Title: Diamond Construction and Water Well Drilling

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

Attachment
December 15, 2005

Mr. Rod Diamond  
Diamond Construction and Water Well Drilling  
HC#3 Box 14073  
Keeau, HI 96739

Dear Mr. Diamond:

Pump Installation Permit  
Nielsen Well (Well No. 3688-14)

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

**Special Conditions**

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

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

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

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

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

Finally, with the resolution of the driller's licensing requirement, we officially accepted your application as complete on November 8, 2005.

If you have any questions, please call Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), 984-2400 (Maui), or 1-800-468-4644 (Lanai & Molokai), extension 70255.

Sincerely,

[Signature]

Peter T. Young  
Chairperson

Enclosure

c: Greg Nielsen (with applicable comments – DOH SDWB, WWB, CWB)  
USGS  
Hawaii DWS
Nielsen Well, Well No. 3688-14

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

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management’s Administrative Rules, Section 13-168, entitled “Water Use, Wells, and Stream Diversion Works”, this document permits the pump installation for Nielsen Well (Well No. 3688-14) at TMK 1-5-052: 100, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

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

2. No withdrawal of water shall be made other than for testing until a Certificate of Pump Installation Completion has been issued by the Commission.

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

4. The pump installation permit shall be for installation of a 12 gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.

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

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

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

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

9. The pump installation permit application and any related staff submittal approved by the Commission are incorporated into this permit by reference. This permit is also subject to the HWCPIS. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

10. The work proposed in the pump installation permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than the date the permit expires.

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

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

Date of Approval: December 3, 2005
Expiration Date: December 3, 2007

PETER T. YOUNG, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the pump installer have signed, dated, and returned the permit to the Commission. I understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5,000 per day starting from the permit date of approval.

Installer’s Signature: C-57, C-57a, or A License #: C-23379 Date: Rod Diamond
Printed Name: Firm or Title: Diamond Construction and
Water Well Drilling

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

Attachments
### Well Check Program

4/1/04 - Revised for update to Well Standards (February 2004)

#### Data Input

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Number</td>
<td>3688-14</td>
</tr>
<tr>
<td>Well Name</td>
<td>Nielsen</td>
</tr>
<tr>
<td>Ground Elevation</td>
<td>100</td>
</tr>
<tr>
<td>Cement Grout</td>
<td>70</td>
</tr>
<tr>
<td>Grouting Method</td>
<td>other</td>
</tr>
<tr>
<td>Hole Diameter</td>
<td>12</td>
</tr>
<tr>
<td>Total Depth</td>
<td>110</td>
</tr>
<tr>
<td>Estimated Head</td>
<td>10</td>
</tr>
<tr>
<td>Public Water Supply Well?</td>
<td>no</td>
</tr>
<tr>
<td>Solid Casing Material</td>
<td>PVC Plastic</td>
</tr>
<tr>
<td>Solid Casing Specification</td>
<td>Schedule 40</td>
</tr>
<tr>
<td>Solid Casing Length</td>
<td>100</td>
</tr>
<tr>
<td>Solid Casing Diameter</td>
<td>6</td>
</tr>
<tr>
<td>Solid Casing Wall Thickness</td>
<td>0</td>
</tr>
<tr>
<td>Open Casing Length</td>
<td>10</td>
</tr>
</tbody>
</table>

#### Results

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Well Depth</strong></td>
<td></td>
</tr>
<tr>
<td>Theoretical Thickness of Aquifer</td>
<td>410</td>
</tr>
<tr>
<td>1/4 Aquifer Thickness</td>
<td>102.5</td>
</tr>
<tr>
<td>Depth of Well below Sea Level</td>
<td>-10, okay</td>
</tr>
<tr>
<td><strong>Well Casing</strong></td>
<td></td>
</tr>
<tr>
<td>Minimum Wall Thickness</td>
<td></td>
</tr>
<tr>
<td>Material</td>
<td>PVC Plastic</td>
</tr>
<tr>
<td>Minimum Wall Thickness Per Stds</td>
<td></td>
</tr>
<tr>
<td>Wall Thickness Provided</td>
<td>0, too small</td>
</tr>
<tr>
<td>Minimum Length of Solid Casing</td>
<td></td>
</tr>
<tr>
<td>90% of ground to top of aquifer</td>
<td>81</td>
</tr>
<tr>
<td>Length of solid casing Provided</td>
<td>100, okay</td>
</tr>
<tr>
<td>Casing Material</td>
<td>Schedule 40</td>
</tr>
<tr>
<td>(for PVC only - check for 200' limit)</td>
<td>In compliance</td>
</tr>
<tr>
<td><strong>Annular Space</strong></td>
<td></td>
</tr>
<tr>
<td>Depth of Grouting</td>
<td>63</td>
</tr>
<tr>
<td>Depth of Grouting provided</td>
<td>70, okay</td>
</tr>
<tr>
<td>Minimum Annular Space required</td>
<td>2</td>
</tr>
<tr>
<td>Thickness of Annular Space</td>
<td>3, okay</td>
</tr>
</tbody>
</table>

Section 2.2

Section 2.4(b)

Section 2.4(c)

Section 2.4(d)

Section 2.6(c)

Section 2.6(d)
November 8, 2005

TO:  
Honorable Chiyome L. Fukino, M.D., Director  
Department of Health  
Attention:  
Director's Office  
Harold Yee, Wastewater Branch  
William Wong, Safe Drinking Water Branch  
Alec Wong, Clean Water Branch  

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

SUBJECT:  
Well Construction/Pump Installation Permit Application  
Nielsen Well (Well No. 3688-14)  

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

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by December 3, 2005. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

Rl:ss  
Attachment(s)  

RESPONSE:  

[ ] This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or less than 15 of water 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 Public Water Systems, §§1-20-29.

[ ] 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 regularly monitor the water quality thereafter. However, if future plans are made from this source to serve the public water system, 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 supplies 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 located near the proposed well site (information attached).

[ ] An NPDES permit is required.

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

[ ] In the event that the location of the well changes, it is still within the parcel described in this application, our division considers the comments to still be applicable, and we do not need to review the new location.

[ ] No comments/objections

Contact Person:  
William Wong  

Signed:  
William Wong  

Phone: 586-4258  

Date: NOV 30 2005
November 8, 2005

TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attention: Director's Office
Harold Yee, Wastewater Branch
William Wong, Safe Drinking Water Branch
Alec Wong, Clean Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application
Nielsen Well (Well No. 3868-14)

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

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by December 3, 2005. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

RI: ss
Attachment(s)

RESPONSE:

[ ] This well qualifies as a source which will serve as a source of possible water to a public water system (defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 30, Rules Relating to Potable Waters Systems, §11-10-29.

[ ] 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 shall 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 this 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 supplies 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 non-potable purposes and is not subject to Safe Drinking Water Regulations.

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

[ ] An NPDES permit is required.

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

[ ] In the event that the location of the well changes but is still within the parcel described on this application, our division considers the comments to still be applicable, and we do not need to review the new location.

[ ] No comments/objections

Contact Person: Alec Wong
Phone: 587-6309
Date: 11/14/05

Signed: [Signature]

Date: [Date]

ID: DLNR CWRM PAGE: 008 R=97%
The Department of Health, Clean Water Branch has the following comments:

1. For Well-Drilling Activities

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

2. For Well Pump Testing

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

JS/cr
TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attention: Director’s Office
Harold Yee, Wastewater Branch
William Wong, Safe Drinking Water Branch
Alec Wong, Clean Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application
Nielsen Well (Well No. 3688-14)

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

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by December 3, 2005. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

RESPONSE:

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

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

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

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

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

An NPDES permit is required.

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

In the event that the location of the well changes but is still within the parcel described on this application, our division considers the comments to still be applicable, and we do not need to review the new location.

No comments/objections

Contact Person: Loni Morikami
Phone: 586-4294
Signed: Loni Morikami
Date: 11-14-05
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR NEW APPLICATIONS

FROM: RYAN
DATE: 5-May-05
TO:

TO: NAKAMA, L. FOR: 1 Approval
NAKANO, D. 1 Approval
OHYE, M. 1 Signature
SAKODA, E. 3 Information
SUBIA, S. 2 Type Final w/elec.signat., label file folder
SWANSON, S. 4 File
UYENO, D. 
YODA, K. 
YOSHINAGA, M. 

PLEASE:
See Me 1 Review & Comment
Take Action
Type Draft acknow letter

WELL NUMBER 3688-14 WELL NAME Nielsen

WELL CONSTRUCTION
PUMP INSTALLATION
BOTH

ATTACHMENTS FOR APPLICATION PROCESSING - Both applicant & staff generated
1 TRANS. LETTER
2 PERMIT PROCESS TABLE
3 CWRM MAP
4 APPL. FORM (5 COPIES)
5 USGS MAPS (5 COPIES)
6 TAX MAPS (5 COPIES)
7 PARCEL OWNER VERIF.
8 CONTRACTOR VERIF.
9 ALL INFO FILLED IN
10 BACKGROUND CHECK
11 $25 FEE DEPOSIT SLIP
12 DHP/CDUP/EMA check

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

INCOMPLETE ACTION DATES:

DATE ACTION

- send appropriate acknow before accepting?

Wun Nielsen
November 8, 2005

Mr. Rod Diamond
Rod Diamond Drilling
HCR #3 Box 14073
Keeau, HI 96749

Dear Mr. Diamond:

Well Construction/Pump Installation Permit Application for Well No. 3688-14

Through a background search we have discovered that the status of your contractor’s license is “automatically forfeited due to insurance loss”. We understand that this was a mistake on the part of your insurance company, and it was not your fault. However, we cannot issue a permit until this situation is resolved, and we understand you have taken the appropriate steps towards the resolution. Until then we will continue processing your permit application. Please notify us when the insurance status is resolved.

For your information, the attached table describes the process, responsible parties, and deadline requirements for drilling or modifying a well and installing, modifying, or replacing a pump.

By this acceptance letter, we are also notifying the well operator/landowner that **water may not be pumped for purposes other than testing until the certificate of well construction/pump installation completion letter is issued to the well operator and landowner.** Additionally, the permitted pump capacity described on the pump installation permit may be reduced in the event that the pump test does not support the capacity. No certificate of pump installation will be issued until the Commission has determined that the pump capacity will not have adverse effects on the aquifer, other nearby wells, or streams. In other words, you may need to remove the pump and install a smaller pump at the Commission’s discretion before you can withdraw water for purposes other than testing.

If you have any questions about your permit application, please contact Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), extension 70255.

Sincerely,

DEAN A. NAKANO
Acting Deputy Director

RI:ss
Attachment

c: Greg Neilsen
November 8, 2005

TO: Honorable Chiyome L. Fukino, M.D., Director
    Department of Health
    Attention: Director’s Office
    Harold Yee, Wastewater Branch
    William Wong, Safe Drinking Water Branch
    Alec Wong, Clean Water Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application
Nielsen Well (Well No. 3688-14)

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

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by December 3, 2005. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

RESPONSE:

This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title II, 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 [If ] is not located near the proposed well site (information attached).

An NPDES permit is required.

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

In the event that the location of the well changes but is still within the parcel described on this application, our division considers the comments to still be applicable, and we do not need to review the new location.

No comments/objections

Contact Person: __________________________ Phone: ________________

Signed: ___________________________ Date: ________________
November 8, 2005

TO: Russell Tsuji, Administrator
    Land Division

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

SUBJECT: Well Construction/Pump Installation Permit Application
          Nielsen Well (Well No. 3688-14)

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

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. **Please respond by returning this cover memo form by December 3, 2005.** If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

RI:ss
Attachment(s)

RESPONSE:

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

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

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

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

[ ] No objections

[ ] Other comments:

Contact Person: ____________________________ Phone: __________________

Signed: ____________________________ Date: ______________
November 8, 2005

TO: Melanie Chinen, Administrator
    Historic Preservation

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

SUBJECT: Well Construction/Pump Installation Permit Application
          Nielsen Well (Well No. 3688-14)

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

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. Please respond by returning this cover memo form by December 3, 2005. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255. If you require additional information regarding specific information that can be provided by the applicant, please contact the applicant directly at the contact information provided on the application form.

RESPONSE:

[ ] This is a [ ] public (county or state) project [ ] private project and [ ] will [ ] may disturb historic sites.

[ ] We concur that the work described under this permit will not disturb historic sites.

[ ] We do not concur that the work described under this permit will not disturb historic sites. We require the following for our concurrence:

Contact Person: ___________________________ Phone: ________________

Signed: ___________________________ Date: ________________
<table>
<thead>
<tr>
<th>Taxkey</th>
<th>Subdiv/Condo</th>
<th>Tnr</th>
<th>Address</th>
<th>Owner/Lessee</th>
<th>Bds</th>
<th>Bths</th>
<th>Land area</th>
<th>Liv area</th>
<th>Last Sale</th>
<th>Instr</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-1-5-52-100</td>
<td>Hawaiian Paradise</td>
<td>F</td>
<td>8th Ave</td>
<td>HIGUCHI TR</td>
<td>1.00</td>
<td>ac</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This information has been supplied by third parties and has not been independently verified by Hawaii Information Service and is, therefore, not guaranteed.
## Well Background Check

<table>
<thead>
<tr>
<th>Approved</th>
<th>Well No.</th>
<th>Well Name</th>
<th>Applicant</th>
<th>Driller</th>
<th>Pump Inst.</th>
<th>Type</th>
<th>Well Construction</th>
<th>Pump Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BC-23379</td>
<td>BC-23379</td>
<td>BOTH</td>
<td>Issued Signed</td>
<td>Issued Signed</td>
</tr>
<tr>
<td>3786-02</td>
<td>Peters</td>
<td></td>
<td>BC-23379</td>
<td>BOTH</td>
<td></td>
<td></td>
<td>1/6/2005</td>
<td>3/24/2005</td>
</tr>
</tbody>
</table>

Thursday, May 05, 2005
<table>
<thead>
<tr>
<th>F. YR APP</th>
<th>D</th>
<th>SRC/ OBJ</th>
<th>COST</th>
<th>CTR</th>
<th>PROJECT</th>
<th>PH ACT</th>
<th>AMOUNT</th>
<th>NAME/DESCRIPTION (WANG INPUT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S 05</td>
<td>326</td>
<td>C 1026</td>
<td>0752</td>
<td></td>
<td></td>
<td></td>
<td>(1)</td>
<td>$25.00 Gregory Nielson</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(10)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TOTAL</td>
<td>$ 25.00</td>
</tr>
</tbody>
</table>

REMARKS:  
LINE (1) Nielsen Well
LINE (2)
LINE (3)
LINE (4)
LINE (5)
LINE (6)
LINE (7)
LINE (8)
LINE (9)
LINE (10)
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 8 copies and a non-refundable filing fee of $26.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 897-2229. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwm.

WELL LOCATION INFORMATION

<table>
<thead>
<tr>
<th>1. STATE WELL NO (if already assigned)</th>
<th>2. WELL NAME</th>
<th>3. ISLAND</th>
<th>4. TAN</th>
<th>5. Lat</th>
<th>6. Long</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-60</td>
<td>Nielsen Well</td>
<td>Hawaii</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Portion of USGS topographic map (scale 1:24,000) with well location labeled and include the name of the owner.

Property tax map showing well location referenced to established property boundaries.

Photograph of the proposed well site.

X A schematic diagram showing the well site, access road and proposed well infrastructure (if applicable)

5. WELL OPERATOR'S NAME/COMPANY: Nielsen GREG

6. LANDOWNER'S NAME/COMPANY: SAME

P.O. BOX 2188 KEAAU 96749

Well Operator's Mailing Address

Landowner's Mailing Address: SAME

GREG & CINNAMON NIELSEN

987-8100 966-4129 987-8100 966-4129

Well Operator's Phone

Well Operator's Fax

Well Operator's E-mail

Landowner's Phone

Landowner's Fax

Landowner's E-mail

959-8572

7. Have you consulted with the Historic Preservation Division of the Department of Land and Natural Resources regarding potential impacts of well construction activities on historic sites?

☐ Yes (please attach applicable documentation from Historic Preservation)

☐ No

PROPOSED WELL CONSTRUCTION

6. Proposed Work

☐ X Construct New Well

☐ Modify Existing Well

☐ Abandon/Seal Well

☐ Install New Pump

☐ Replace Pump

☐ Install Well, x-axle

9. Construction Type

☐ x-axle

☐ Dog

☐ Shaft

☐ Tunnel

☐ Other

10. Is this well part of a battery of wells? ☐ Yes ☐ No

PROPOSED PUMP INSTALLATION

11. Proposed Work

☐ X Install New Pump

☐ Replace Pump

12. Proposed Pumping Rate, gpm (gallons per minute)

☐ 12

☐ 250

13. Proposed Amount of Withdrawal, gpd (gallons per day)

☐ 12

☐ 250

14. Method of flow measurement

☐ X Flow meter

☐ Open Pipe

☐ Well

☐ Orifice

☐ Other

PROPOSED USE

15. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits) Deferred

Site Photo

☐ 16. Municipal (water systems serving greater than 25 individuals or 15 service connections)

17. Domestic Number of units to be served: 1

☐ 18. Industrial (describe)

19. Irrigation (describe crop and no. of acres)

20. Military (describe)

21. Other (describe)

OTHER LEGAL REQUIREMENTS

22. Conservation District Use Permit (CDUP)

☐ Required, CDUP #________ date approved _______

☐ Not Required (attach documentation from OCCL)

23. Special Management Area Permit (SMAP)

☐ Required, SMA #________ date approved _______

☐ Not Required (attach documentation from applicable County agency)

Additional remarks, explanations, etc. (attach additional sheet if more space is needed)

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge.

Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in a fee of up to $2000/day.

24. WELL DRILLER (Must be filled out if application is for Well Construction)

Rodney K Diamond

BC23379

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)

Rodney K Diamond

BC23379

HCR #3 Box 14073 Keaau I1 96749

Phone 987-8100 966-4129

Address

E-mail

For Official Use Only:

RECEIVED MAY 4 2005 11:51

STATE OF HAWAII
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 8 copies and a non-refundable filing fee of $26.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 897-2229. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwm.

WELL LOCATION INFORMATION

<table>
<thead>
<tr>
<th>1. STATE WELL NO (if already assigned)</th>
<th>2. WELL NAME</th>
<th>3. ISLAND</th>
<th>4. TAN</th>
<th>5. Lat</th>
<th>6. Long</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-60</td>
<td>Nielsen Well</td>
<td>Hawaii</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Portion of USGS topographic map (scale 1:24,000) with well location labeled and include the name of the owner.

Property tax map showing well location referenced to established property boundaries.

Photograph of the proposed well site.

X A schematic diagram showing the well site, access road and proposed well infrastructure (if applicable)

5. WELL OPERATOR'S NAME/COMPANY: Nielsen GREG

6. LANDOWNER'S NAME/COMPANY: SAME

P.O. BOX 2188 KEAAU 96749

Well Operator's Mailing Address

Landowner's Mailing Address: SAME

GREG & CINNAMON NIELSEN

987-8100 966-4129 987-8100 966-4129

Well Operator's Phone

Well Operator's Fax

Well Operator's E-mail

Landowner's Phone

Landowner's Fax

Landowner's E-mail

959-8572

7. Have you consulted with the Historic Preservation Division of the Department of Land and Natural Resources regarding potential impacts of well construction activities on historic sites?

☐ Yes (please attach applicable documentation from Historic Preservation)

☐ No

PROPOSED WELL CONSTRUCTION

6. Proposed Work

☐ X Construct New Well

☐ Modify Existing Well

☐ Abandon/Seal Well

☐ Install New Pump

☐ Replace Pump

☐ Install Well, x-axle

9. Construction Type

☐ x-axle

☐ Dog

☐ Shaft

☐ Tunnel

☐ Other

10. Is this well part of a battery of wells? ☐ Yes ☐ No

PROPOSED PUMP INSTALLATION

11. Proposed Work

☐ X Install New Pump

☐ Replace Pump

12. Proposed Pumping Rate, gpm (gallons per minute)

☐ 12

☐ 250

13. Proposed Amount of Withdrawal, gpd (gallons per day)

☐ 12

☐ 250

14. Method of flow measurement

☐ X Flow meter

☐ Open Pipe

☐ Well

☐ Orifice

☐ Other

PROPOSED USE

15. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits) Deferred

Site Photo

☐ 16. Municipal (water systems serving greater than 25 individuals or 15 service connections)

17. Domestic Number of units to be served: 1

☐ 18. Industrial (describe)

19. Irrigation (describe crop and no. of acres)

20. Military (describe)

21. Other (describe)

OTHER LEGAL REQUIREMENTS

22. Conservation District Use Permit (CDUP)

☐ Required, CDUP #________ date approved _______

☐ Not Required (attach documentation from OCCL)

23. Special Management Area Permit (SMAP)

☐ Required, SMA #________ date approved _______

☐ Not Required (attach documentation from applicable County agency)

Additional remarks, explanations, etc. (attach additional sheet if more space is needed)

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge.

Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in a fee of up to $2000/day.

24. WELL DRILLER (Must be filled out if application is for Well Construction)

Rodney K Diamond

BC23379

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)

Rodney K Diamond

BC23379

HCR #3 Box 14073 Keaau HI 96749

Phone 987-8100 966-4129

Address

E-mail

For Official Use Only:

RECEIVED MAY 4 2005 11:51
PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Elevation at top of casing: 101 ft. msl

Hole Diameter: 12 inches.

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

Ground Elevation: 100 ft. msl*

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

Annular space between hole and casing (1.5" for positive displacement, 3" for other methods):
3 in.

Rock or Gravel Packing:
20 ft
Material:
Crushed Basalt
Rounded Gravel

Estimated Water Level Elevation:
10 ft. msl*

Solid Casing:
Total Length: _____ ft
Nominal Diameter: _____ in
Wall Thickness: _____ in
Bottom Elevation: _____ ft. msl*

Open Casing:

Open Hole:

Length: _____ ft
Diameter: _____ in
Bottom Elevation: _____ ft. msl*

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

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elevation -)
Example: Estimated + 2 ft. Water Level Elev. Bottom Elevation of Well Limit = (2 - ) = -18.5 ft.

Solid Casing Material:
Carbon Steel: compliant with (check one or more):
AAWWA C200
API Spec. 5L
ASTM A53
ASTM A139
And compliant with (check one or more):
ASTM A242 (or A698)
Type E
Type S
Grade B
Other
ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one)
Schedule 40
Schedule 80
PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one): Schedule 40
Schedule 80
Schedule 120
Thermoset Plastic: (check one)
Filament Wound Resin Pipe conforming to ASTM D2996
Centrifugally Cast Resin Pipe conforming to ASTM D2997
Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
PTFE Fluorocarbon Tubing conforming to ASTM D3296
FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:
Carbon Steel: compliant with (check one or more):
AAWWA C200
API Spec. 5L
ASTM A53
ASTM A139
And compliant with (check one or more):
ASTM A242 (or A698)
Type E
Type S
Grade B
Other
Stainless Steel: (check one)
ASTM A409 (production wells)
ASTM A312 (monitor wells)
ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one)
Schedule 40
Schedule 80
PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one):
Schedule 40
Schedule 80
Schedule 120
Thermoset Plastic: (check one)
Filament Wound Resin Pipe conforming to ASTM D2996
Centrifugally Cast Resin Pipe conforming to ASTM D2997
Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
PTFE Fluorocarbon Tubing conforming to ASTM D3296
FEP Fluorocarbon Tubing conforming to ASTM D3296

WCPI App. Form 10/05/04