COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR PERMIT ISSUANCE 5/19/05
FROM: P
DATE: 8/10
SUSPENSE DATE: __________
TO: ANAKALEA, P.
    BAUER, G.
    CHING, F.
    DANBARA, S.
    FUJI, N.
    GOODING, K.
    HARDY, R.
    HIGA, D.
    ICE, C.
    IMATA, R.
INIT: __________
TO: KUNIMURA, I.
    NAKAMA, L.
    NAKANO, D.
    OHYE, M.
    SAKODA, E.
    SUBIA, S.
    SWANSON, S.
    UYENO, D.
    YODA, K.
    YOSHINAGA, M.
INIT: __________
FOR: Approval
    Signature
    Information
PLEASE: See Me
    1 Review & Comment
    2 Type Final
    4 File
    Xerox copies

WELL NUMBER 34186-03
WELL NAME Woody

WELL CONSTRUCTION

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

PUMP INSTALLATION

ATTACHMENTS FOR PUMP INSTALLATION PERMIT:
1 COVER LETTER
2 PERMIT (2x)
3 SDWB
4 WWB
5 CBW
6 HEER
7 LD
8 HP
9 OCCL
10 SMA
11 GLENN'S WORKSHEET

TO BE SENT TO APPLICANT

FOR OFFICE USE ONLY
August 11, 2006

Ref: 3486-03.wcp

Mr. Fred Page
Fred Page Drilling International
P.O. Box 1434
Pahoa, HI 96778

Dear Mr. Page:

Well Construction Permit
Woody Well (Well No. 3486-03)

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

**Special Conditions**

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

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/cwrm/forms.htm.

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

If you have any questions, please call 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

RI: ss
Enclosures

c: James Woodward (with applicable comments – DOH SDWB, WWB, CWB)
USGS
Hawaii DWS
WELL CONSTRUCTION PERMIT
Woody Well, Well No. 3486-03

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

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of Woody Well (Well No. 3486-03) at TMK 1-5-025: 055, 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/cwrm/forms.htm). The permittee shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson. No withdrawal of water shall be made for purposes other than testing without a Certificate of Pump Installation Completion. The permitted pump capacity described on the pump installation permit may be reduced in the event that the pump test does not support the capacity.

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

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

6. In the event that historically significant remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and immediately contact the Department of Land and Natural Resources' 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 correlative water rights.

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

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

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

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

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

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

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

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

Date of Approval: August 10, 2006
Expiration Date: August 10, 2008

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-16653 Date: __________________________

Printed Name: Fred Page Firm or Title: Fred Page Drilling International

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

Attachment
Ref: 3486-03.pip

August 11, 2006

Mr. Fred Page
Fred Page Drilling International
P.O. Box 1434
Pahoa, HI 96778

Dear Mr. Page:

Pump Installation Permit
Woody Well (Well No. 3486-03)

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

Special Conditions

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

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

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

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

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

If you have any questions, please call 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

Enclosure

c: James Woodward (with applicable comments – DOH SDWB, WWB, CWB, Land Division)
USGS
Hawaii DWS
PUMP INSTALLATION PERMIT
Woody Well, Well No. 3486-03

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

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Woody Well (Well No. 3486-03) at TMK 1-5-025: 055, 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 10 gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.

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

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

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

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

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

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

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

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

Date of Approval: August 10, 2006
Expiration Date: August 10, 2008

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-16653 Date: ___________________________
Printed Name: Fred Page Firm or Title: Fred Page Drilling International

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

Attachments
TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attention: Director's Office
Harold Yee, Wastewater Branch
Acting Branch Chief, 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
Woodie Well (Well No. 3486-03)

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

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by August 10, 2006. 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 portable water to a public water system (defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Portable 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 continuously 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 portable and non-portable purposes in a single system, the user shall eliminate cross-connections and backflow connections by physically separating portable and non-portable systems by an air gap or an approved backflow preventer, and by clearly labeling all non-portable spigots with warning signs to prevent consumption of non-portable 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: Stuart Yamada
Phone: 586-4258

Signed: 
Phone: 586-4258

Date: 7/13/06
The Department of Health, Safe Drinking Water Branch has the following additional comments for the Well Construction / Pump Installation Permit Application for the Woody Well (Well No. 8-3486-03 Hawaii):

Underground Injection Control (UIC) Comments:

In general, a shallow well, or a well that recharges quickly from local rainfall, should not be used as a potable water source because such a well increases the risk of having unsatisfactory groundwater quality that when consumed may compromise health. Factors that directly influence a well’s groundwater quality include wastewater disposal systems (cesspools, septic systems, drainage wells), lawn/garden/crop-growing activities, and even the proximity to the ocean where salt water intrusion may occur.
July 7, 2006

TO: Russell Tsuji, Administrator
    Land Division

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

SUBJECT: Well Construction/Pump Installation Permit Application
    Woody Well (Well No. 3486-03) TMK 1-4-014:005

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 August 10, 2006. 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.

RESPONSE:

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

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

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

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

[ ] No objections

X] Other comments: Original source of private title was issued prior to statehood.

Contact Person: Gary Martin Phone: 587-0421

Signed: Gary Martin Date: JUL 12 2006
LINDA LINGLE  
GOVERNOR OF HAWAII

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
P.O. BOX 631  
HONOLULU, HAWAII 96809

July 7, 2006

TO:  
Honorable Chiyome L. Fukino, M.D., Director  
Department of Health  
Attention:  
Director's Office  
Harold Yee, Wastewater Branch  
Acting Branch Chief, 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  
Woody Well (Well No. 3486-03)

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

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by August 10, 2006. 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.

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 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 clearly label all non-potable spigots with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices must 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 (see 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 could review the comments to still be applicable, and we do not need to review the new location.

[ ] No comments/objections

Contact Person: Lon Mon Kamii  
Phone: 587-0255  
Date: 07-11-06

Signed: Omi Mon Kamii  
Date: 07-11-06
TO: Honorable Chiyome L. Fukino, M.D., Director  
Department of Health  
Attention: Director’s Office  
Harold Yee, Wastewater Branch  
Acting Branch Chief, 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  
Woody Well (Well No. 3486-03)

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

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by August 10, 2006. 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: Attachment(s)

RESPONSE:

[1] This well qualifies as a source which will serve as a source of public 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 meet receiving Director of Health approval prior to use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Supply, §11-20-25.

[1] This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year or 15 service connections) and if the well water is used for drinking, the private owner should test for bacteriological and chemical presence before declaring 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.

[1] 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 consumable agents with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested.

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

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

[1] An NPDES permit is required.

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

[1] In the event that the location of the well changes and 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.

[1] No comments/objections.

Contact Person: Alec Wong  
Phone: 586-4309  
Date: 7/10/06

Signed: [Signature]
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
<table>
<thead>
<tr>
<th>Data Input</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Number</td>
<td>3486-03</td>
</tr>
<tr>
<td>Well Name</td>
<td>Woody</td>
</tr>
<tr>
<td>Ground Elevation</td>
<td>130</td>
</tr>
<tr>
<td>Cement Grout</td>
<td>95</td>
</tr>
<tr>
<td>Grouting Method</td>
<td>positive displacement</td>
</tr>
<tr>
<td>Hole Diameter</td>
<td>12</td>
</tr>
<tr>
<td>Total Depth</td>
<td>130</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>steel</td>
</tr>
<tr>
<td>Solid Casing Specification</td>
<td>ASTM A53</td>
</tr>
<tr>
<td>Solid Casing Length</td>
<td>120</td>
</tr>
<tr>
<td>Solid Casing Diameter</td>
<td>6</td>
</tr>
<tr>
<td>Solid Casing Wall Thickness</td>
<td>0.25</td>
</tr>
<tr>
<td>Open Casing Length</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Results</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Depth</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>0 okay</td>
</tr>
<tr>
<td>Well Casing</td>
<td></td>
</tr>
<tr>
<td>Minimum Wall Thickness</td>
<td>steel</td>
</tr>
<tr>
<td>Minimum Thickness per standards</td>
<td>#N/A</td>
</tr>
<tr>
<td>Wall Thickness Provided</td>
<td>0.25</td>
</tr>
<tr>
<td>Minimum Length of Solid Casing</td>
<td>#N/A</td>
</tr>
<tr>
<td>90% of ground to top of aquifer</td>
<td>108</td>
</tr>
<tr>
<td>Length of solid casing Provided</td>
<td>120 okay</td>
</tr>
<tr>
<td>Casing Material</td>
<td>ASTM A53</td>
</tr>
<tr>
<td>(for pvc only - check for 200' limit)</td>
<td>in compliance</td>
</tr>
<tr>
<td>Annular Space</td>
<td></td>
</tr>
<tr>
<td>Depth of Grouting</td>
<td>84</td>
</tr>
<tr>
<td>Depth of Grouting provided</td>
<td>95 okay</td>
</tr>
<tr>
<td>Minimum Annular Space required</td>
<td>1.5</td>
</tr>
<tr>
<td>Thickness of Annular Space</td>
<td>3 okay</td>
</tr>
</tbody>
</table>
WELL NUMBER 3486-03
WELL NAME Woody

- 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 (11 COPIES)
5. USGS MAPS (11 COPIES)
6. TAX MAPS (11 COPIES)
7. PARCEL OWNER VERIF.
8. CONTRACTOR VERIF.
9. ALL INFO FILLED IN
10. BACKGROUND CHECK
11. $25 FEE DEPOSIT SLIP
12. DH/P/C DU/ SMA pre-screen

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

INCOMPLETE ACTION DATES:

DATE ACTION

- clean up before accepting
- Woody is well owner for 1st G15
July 7, 2006

Mr. Fred Page
Fred Page Drilling International
P.O. Box 1434
Pahoa, HI 96778

Dear Mr. Page:

Well Construction/Pump Installation Permit Application for Well No. 3486-03

We acknowledge receipt, on June 5, 2006, of your completed Well Construction/Pump Installation permit application and filing fee for the Woody Well (Well No. 3486-03). You can expect your application to be processed within ninety (90) days from this date.

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), 274-3141 (Kauai), 984-2400 (Maui), or 1-800-468-4644 (Lanai & Molokai) extension 70255.

Sincerely,

DEAN A. NAKANO
Acting Deputy Director
TO: Honorable Chiyome L. Fukino, M.D., Director
   Department of Health
   Attention: Director’s Office
   Harold Yee, Wastewater Branch
   Acting Branch Chief, 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
   Woody Well (Well No. 3486-03)

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

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by August 10, 2006. 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:

1) This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people 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.

2) 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.

3) 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.

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

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

6) An NPDES permit is required.

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

8) 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.

9) No comments/objections

Contact Person: Phone: 
Signed: Date:
July 7, 2006

TO: Russell Tsuji, Administrator  
Land Division

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

SUBJECT: Well Construction/Pump Installation Permit Application  
Woody Well (Well No. 3486-03) TMK 1-4-014:005

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 August 10, 2006. 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: ____________
TO: Melanie Chinen, Administrator
   Historic Preservation

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

SUBJECT: Well Construction/Pump Installation Permit Application
         Woody Well (Well No. 3486-03) TMK: 1-4-014:005

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 August 10, 2006. 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.

RI:ss
Attachment(s)

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 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>Pric</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-1-5-25-55</td>
<td>Hawaiian F 11th</td>
<td>WOODWARD, Paradise Park Ave</td>
<td>JAMES D &amp; MARI-ANN</td>
<td>1.00 ac</td>
<td>0 2/27/2006</td>
<td>DEED</td>
<td>$86,74</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.
**LICENSE SCREEN**

[ Look up License Type Codes-> ]

Please click a link listed below to display the other screen.

***** GENERAL LICENSEE *****

**LIC ID:** CT-16653  
**Active/Inactive:** ACTIVE  
**NAME:** FRED PAGE DRILLING INTERNATIONAL INC  
**TRADE NAME:**  
**STATUS:** CURRENT, VALID & IN GOOD STANDING  
**ENTITY:** CORPORATION  
**BUSINESS CODE:**  
**ORIG LIC DATE:** 4/25/91  
**EXPIRE DATE:** 9/30/06  
**CLASS PREFIX:** C  
**SPECIAL PRIVILEGE:**  
**RESTRICTION:**  
**BUSINESS ADDR:** 15-3105 HALELO PL PAHOA HI 96778  
**MAILING ADDR:** P O BOX 1434 PAHOA HI 96778

Click here to enter search criteria for prior complaints history ->

For prior complaints and disciplinary history, contact licensing and business information center at (808)587-3295.

<-Back  New Search->

EMPLOYEES LIST  ||  EMPLOYERS LIST  ||  INSURANCE/BOND  ||  LICENSE CLASS

License information on this site reflects information in the Professional and Vocational Licensing Division as of July 5, 2006; however, applications and forms are subject to standard processing time, and the information here does not reflect pending changes which are being reviewed. The site is updated daily, Monday through Friday, except holidays.

The State of Hawaii makes no guarantees as to the accuracy of the information accessed, the timeliness of the delivery of transactions, delivery to the correct party, preservation of the privacy and security of users and makes no warranties, including warranty of merchantability and fitness for a particular purpose. User is advised that if the information obtained herein is to be reasonably relied upon, user should confirm the accuracy of such information with the provider thereof.

Copyright © 2002 Professional and Vocational Licensing Division

Hawaii State homepage  ||  DCCA  ||  Professional and Vocational Licensing Division
<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>Issue</th>
<th>Signed</th>
<th>WCR1</th>
<th>Accept</th>
<th>Pump Installation</th>
<th>Issue</th>
<th>Signed</th>
<th>WCR2</th>
<th>Accept</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/5/1993</td>
<td>3587-03</td>
<td>Hwn Par Pk-Olms</td>
<td>Mark G. Olmstead</td>
<td>C-16653</td>
<td>C-16653</td>
<td>BOTH</td>
<td>1/5/1993</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/5/1993</td>
<td>4905-02</td>
<td>Lutkenhouse</td>
<td>Dan J. Lutkenhouse Revoka</td>
<td>C-16653</td>
<td>C-16653</td>
<td>BOTH</td>
<td>8/5/1993</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/9/2004</td>
<td>3687-08</td>
<td>Shirley</td>
<td>David and Shirley Jonkman</td>
<td>C-16653</td>
<td>C-16653</td>
<td>BOTH</td>
<td>1/20/2004</td>
<td>2/24/2004</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/2/2004</td>
<td>3687-12</td>
<td>That's a deep su</td>
<td>Tom and Cindy King</td>
<td>C-16653</td>
<td>C-16653</td>
<td>BOTH</td>
<td>7/19/2004</td>
<td>8/18/2005</td>
<td>11/23/2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9/30/2004</td>
<td>7244-02</td>
<td>Uluwehi 2</td>
<td>Thomas Baldwin</td>
<td>C-16653</td>
<td></td>
<td>BOTH</td>
<td>11/30/2004</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12/13/2004</td>
<td>2681-01</td>
<td>Ruben Kay 1</td>
<td>Ruben Kay</td>
<td>C-16653</td>
<td></td>
<td>BOTH</td>
<td>1/6/2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tuesday, May 02, 2006
<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 Issued</th>
<th>Signed</th>
<th>WCR1</th>
<th>Accept</th>
<th>Pump Installation Issued</th>
<th>Signed</th>
<th>WCR2</th>
<th>Accept</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/13/2004</td>
<td>2681-02</td>
<td>Ruben Kay 2</td>
<td>Ruben Kay</td>
<td>C-16653</td>
<td>BOTH</td>
<td></td>
<td>1/6/2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/17/2005</td>
<td>3585-03</td>
<td>Hula Cat 1</td>
<td>Richard Koval</td>
<td>C-16653</td>
<td>BOTH</td>
<td></td>
<td>3/30/2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/8/2005</td>
<td>3081-03</td>
<td>Szom Jas</td>
<td>Alohilani Nursery</td>
<td>C-16653</td>
<td>C-16653</td>
<td>BOTH</td>
<td>8/24/2005</td>
<td></td>
<td></td>
<td></td>
<td>8/24/2005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/8/2005</td>
<td>3688-09</td>
<td>Maka Punu Luaw</td>
<td>David E. Young</td>
<td>C-16653</td>
<td>C-16653</td>
<td>BOTH</td>
<td>8/24/2005</td>
<td></td>
<td></td>
<td></td>
<td>8/24/2005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/8/2005</td>
<td>7549-04</td>
<td>Uluwehi 1</td>
<td>Thomas Baldwin</td>
<td>C-16653</td>
<td>C-16653</td>
<td>BOTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tuesday, May 02, 2006
<table>
<thead>
<tr>
<th></th>
<th>SRC</th>
<th>APP</th>
<th>D</th>
<th>OBJ</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>1</td>
<td></td>
<td>06</td>
<td>326</td>
<td>C</td>
<td>1026</td>
<td>0752</td>
<td></td>
<td>$25.00</td>
<td>James Woodward</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$25.00</td>
<td>Charles Jencks</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL:** $50.00

**REMARKS:**
- LINE (1): Woody Well
- LINE (2): Kaololu Irrigation Well #1
- LINE (3)
- LINE (4)
- LINE (5)
- LINE (6)
- LINE (7)
- LINE (8)
- LINE (9)
- LINE (10)
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. TMK</th>
<th>5. SECTOR</th>
<th>6. ZONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>(State)</td>
<td>Woody</td>
<td>Hawaii</td>
<td>025</td>
<td>055</td>
<td></td>
</tr>
</tbody>
</table>

The following must be attached before this application is accepted as complete:
- Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the surveyor.
- Property tax map, showing well location referenced to established property boundaries.
- Photograph of the proposed well site.
- A schematic diagram showing the well site, access road and proposed well infrastructure.

PROPOSED WELL CONSTRUCTION

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Modify Existing Well</td>
<td>Drilled</td>
<td>Install New Pump</td>
<td>1.0</td>
<td></td>
</tr>
</tbody>
</table>

PROPOSED PUMP INSTALLATION

<table>
<thead>
<tr>
<th>11. Proposed Pumping Rate, gpm (gallons per minute)</th>
<th>13. Method of flow measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Flowmeter</td>
</tr>
</tbody>
</table>

PROPOSED USE

- Domestic
  - Number of units to be served: 1
- Industrial
- Irrigation
- Military

OTHER LEGAL REQUIREMENTS

If required, Items 21 and 22 must be obtained before the Commission can legally issue a permit:

- Conservation District Use Permit (CDUP)
  - Required, CDUP # __________ date approved ________
  - Not Required (attach documentation from OCCC)
  - I have not checked with OCCC about whether or not a CDUP is required. I understand that checking with OCCC prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

- Special Management Area Permit (SMAP)
  - Required, SMA # __________ date approved ________
  - Not Required (attach documentation from applicable County agency)
  - I have not consulted with the County about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

- Historic Preservation District (HPD) of the Department of Land and Natural Resources
  - I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.

FOR OFFICIAL USE ONLY:

<table>
<thead>
<tr>
<th>Date Approved</th>
<th>Print</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/27/06</td>
<td>Fred Page</td>
</tr>
</tbody>
</table>

For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.
PROPOSED WELL SECTION

Please attach schematic if different from diagram provided below.

Elevation at top of casing: 131 ft, msl*

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

Ground Elevation: 130 ft, msl*

Solid Casing: (≥ 90% x (Ground Elev. - Water Level Elev))
- Total Length: 120 ft
- Nominal Diameter: 6 in
- Wall Thickness: ≥ 250 in
- Bottom Elevation: 120 ft, msl*

Open Casing:
- Perforated: Yes
- Screen: Yes
- Total Length: 10 ft
- Nominal Diameter: 6 in
- Wall Thickness: ≥ 250 in
- Bottom Elevation: 130 ft, msl*

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

Elev. of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elevation - 4 ft x Water Level Elev) / 4

Example: Estimated = 2 ft, Water Level Elev. → Bottom Elevation of Well Limit = (41.4 ft - 8.5 ft) / 4 = -18.5 ft

Solid Casing Material:
- Carbon Steel: compliant with (check one or more)
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- And compliant with (check one or more)
  - ASTM A242 (Grade A120, or A606)
  - Type E
  - Type S
  - Grade B
  - Other
- Stainless Steel: (check one)
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80

* PVC Plastic conforming to ASTM F480 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)
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- And compliant with (check one or more)
  - ASTM A242 (Grade A120, or A606)
  - Type E
  - Type S
  - Grade B
  - Other
- Stainless Steel: (check one)
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80

PVC Plastic conforming to ASTM F480 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

* 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 - 4 ft x Water Level Elev) / 4

Example: Estimated = 2 ft, Water Level Elev. → Bottom Elevation of Well Limit = (41.4 ft - 8.5 ft) / 4 = -18.5 ft

Ground Elevation: 130 ft, msl*

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

Cement Grout: 95 ft
(min. 70% of distance from ground elevation to top of water surface or 500 ft, whichever is less.)

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

Rock or Gravel Packing:
- 14 ft
- Material:
  - Crushed Basalt
  - Rounded Gravel

Estimated Water Level Elevation:
- 120 ft, msl*
"WOODY" WELL   TMK: 1-5-025-055
Rear view of property
"WOODY" WELL  TMK: 1-5-025-055
Front view of property

04/27/2006