



Wet Rock Groundwater Services, L.L.C.
Groundwater Specialists
TBPB Firm No: 50038
317 Ranch Road 620 South, Suite 203
Austin, Texas 78734 • Ph: 512-773-3226
www.wetrockgs.com

November 3, 2015

Mr. John Dupnik
Barton Springs/Edwards Aquifer Conservation District
1124 Regal Row
Austin, TX 78748

RE: Needmore River Ranch, LLC Well D - Repair Recommendations

Dear Mr. Dupnik:

Needmore River Ranch, LLC (Needmore) Well D was originally completed in February 2013 (according to State Well Report No. 317171), at an unknown time a portion of the existing 8-inch SDR 17 PVC casing slipped and fell into the well. This letter gives our direction for the construction repairs of the Needmore Well D. Attachment 1 provides a well profile figure that shows the recommendations and Attachment 2 provides the State of Texas Well Report.

- Ream existing 12 1/4-inch diameter borehole with 12 1/4-inch drill bit from the ground surface to a depth of 460 feet to remove any existing 8-inch PVC casing and grout;
- Ream existing 9 7/8-inch borehole with 12 1/4-inch bit from 460 feet to 470 feet;
- Install 8 5/8" x 0.322" (Sch. 40) steel casing with centralizers at 40-foot intervals and cement baskets at 465 feet and 470 feet from +2 feet to a depth of 470 feet. In lieu of the 8-inch steel casing option if not approved by the District, install 8-inch SDR 17 PVC casing from +2 feet to a depth of 470 feet;
- Pressure cement casing from the ground surface to 470 feet; and
- Clean out existing 9 7/8-inch borehole from 470 feet to 800 feet.

All depths are from the data of the electric log conducted on October 23, 2012 with respect to ground surface. We have recommended deepening the casing depth by 10 feet (from 460 feet to 470 feet) to ensure the Upper Trinity Aquifer is sealed off from the Middle Trinity Aquifer. In addition, we have recommended steel casing to increase the longevity of the well's life span. Neither of the changes will affect the production capabilities of the well, therefore we view the construction recommendations as well repair rather than well modification. If either of the recommended changes will change the status of the well under district rules, the changes can be omitted and the well can be repaired to the original casing depth and material type.

Please call me at 512-773-3226 if you have any questions or require additional information.

Respectfully,

Wet Rock Groundwater Services, L.L.C.



Kaveh Khorzad, P.G.
President/ Senior Hydrogeologist

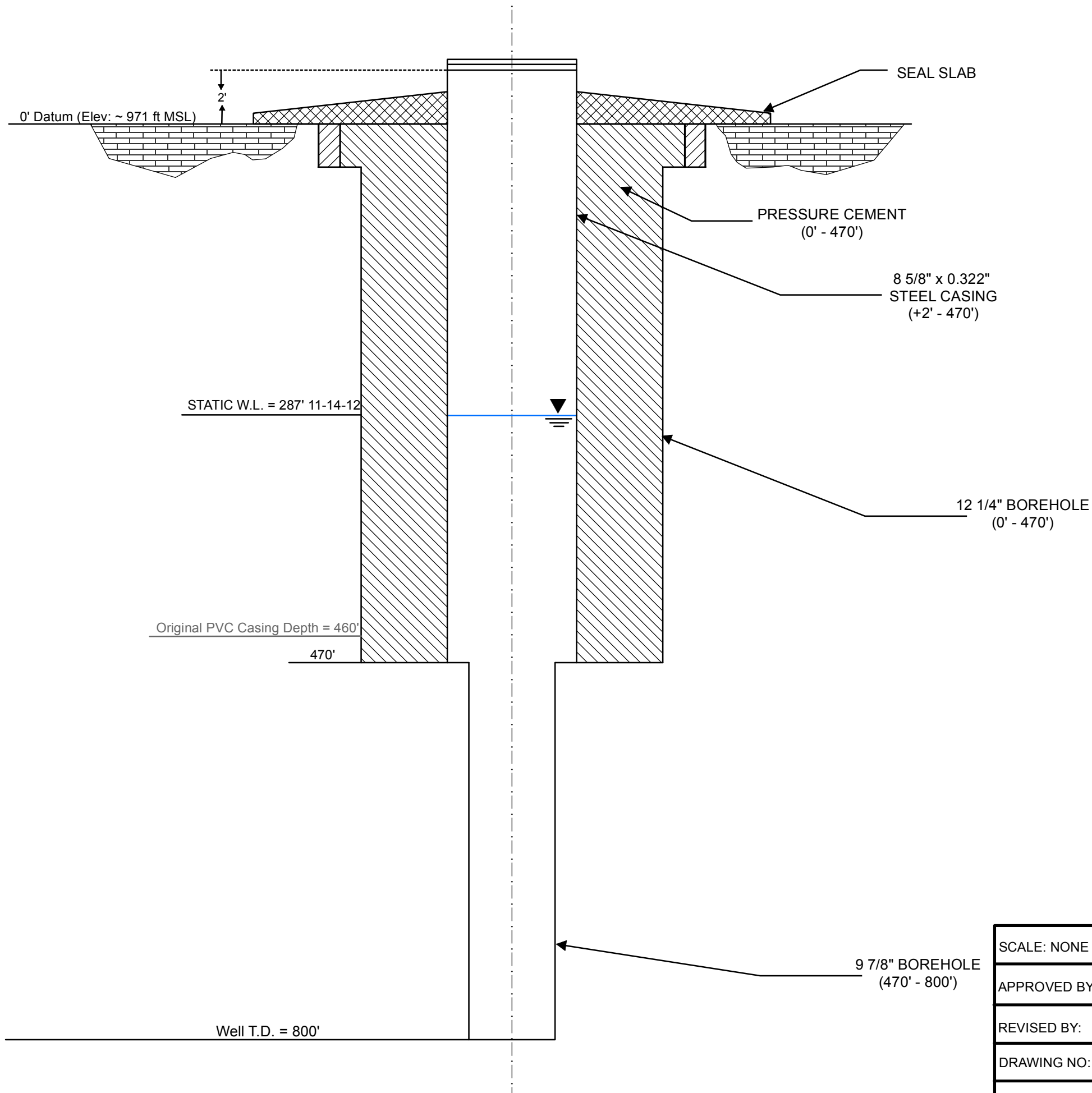
Cc: Mr. Greg LaMantia



Attachment 1

Well D Construction Repair Profile






Notes:

- Existing completion information was taken from State Well Report No. 317171.
- Repair recommendations include setting and pressure cementing 472 feet of 8 5/8-inch steel casing to 470 feet.

DRAFT
PRIVILEGED AND CONFIDENTIAL

SCALE: NONE
APPROVED BY: BB DATE: 11-15
REVISED BY: DATE:
DRAWING NO: W-1
SHEET: 1 OF 1

Well Profile: Well D	
Needmore River Ranch Hays County, Texas	
	Wet Rock Groundwater Services, LLC
	Groundwater Specialists
	TBPB Firm No: 50038
	317 Ranch Road 620 South, Suite 203 Austin, Texas 78734 Ph: 512.773.3226 www.wetrockgs.com

Well T.D. = 800'

Attachment 2

Well D State Well Report



STATE OF TEXAS WELL REPORT for Tracking #317171

Owner:	GREG LAMANTIA	Owner Well #:	WELL D
Address:	3900 N. MCCOLL RD. MCALLEN, TX 78501	Grid #:	68-08-3
Well Location:	2400 LITTLE ARKANSAS RD. WIMBERLY, TX 78676	Latitude:	29° 58' 15" N
Well County:	Hays	Longitude:	098° 02' 04" W
		Elevation:	No Data
Type of Work:	New Well	Proposed Use:	Irrigation

Drilling Start Date: **10/16/2012** Drilling End Date: **2/25/2013**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	12.25	0	460
	9.875	460	800

Drilling Method: **Air Rotary**

Borehole Completion: **Open Hole**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	460	242

Seal Method: **TREMMIE**

Sealed By: **DAVENPORT DRILLING**

Distance to Property Line (ft.): **150+**

Distance to Septic Field or other concentrated contamination (ft.): **150+**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **ESTIMATE**

Surface Completion: **Surface Slab Installed**

Water Level: **290 ft.** below land surface on **2013-02-25** Measurement Method: **Unknown**

Packers: **SHALE 460'**

Type of Pump: **Submersible**

Well Tests: **Pump** Yield: **400 GPM with 30 ft. drawdown after 24 hours**

Water Quality:	<i>Strata Depth (ft.)</i>	<i>Water Type</i>
	740	TRINITY

Chemical Analysis Made: **Yes**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **DAVENPORT DRILLING AND PUMP SERVICE**
11844 BANDERA RD. PMB 711
HELOTES, TX 78023

Driller Name: **RICK PFEIFFER** License Number: **50268**

Comments: **No Data**

Lithology:
 DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
 BLANK PIPE & WELL SCREEN DATA

<i>From (ft)</i>	<i>To (ft)</i>	<i>Description</i>
ELOG ON FILE		

<i>Dia. (in.)</i>	<i>New/Used</i>	<i>Type</i>	<i>Setting From/To (ft.)</i>
8" NEW SDR17PVC FROM 0 TO 460'			

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880