

STATE WELL REPORT

Part 1

Driller's Log

Mississippi Department of Environmental Quality
Office of Land and Water Resources
P. O. Box 2309
Jackson, MS 39225-2309
(601)961-5555
(601)961-5228 (fax)

County: Leflore
Permit #: _____
Driller: Roland W Tollett (RMO-00009026)
Date drilling completed: 4/2/2019

For Office Use Only:

Well #: G182
Aquifer: _____
E-Log #: _____

USGS site name: OW-01

State Law requires that this report be prepared by the license holder responsible for the work and filed with the Department at the above address within 30 days of completion of drilling of the well or borehole.

<p style="text-align: center;">Well Owner Information <i>(Landowner if borehole is not for a water well)</i></p> <p>Owner Name: <u>Leflore County Schools (landowner)</u></p> <p>Mailing Address: <u>USGS (driller - rtollett@usgs.gov)</u> <u>3095 W. California Ave</u></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"><u>Ruston</u></td> <td style="width: 33%;"><u>LA</u></td> <td style="width: 33%;"><u>71270</u></td> </tr> <tr> <td>City</td> <td>State</td> <td>Zip Code</td> </tr> </table> <p>Telephone No. (<u>318</u>) <u>251-9630</u> (245-8639 cell)</p>	<u>Ruston</u>	<u>LA</u>	<u>71270</u>	City	State	Zip Code	<p style="text-align: center;"><input checked="" type="checkbox"/> Well or <input type="checkbox"/> Borehole Location</p> <p>Latitude: <u>33.59312</u> Longitude: <u>-90.30096</u></p> <p>Method of Lat/Long (check one): Conventional Survey _____, USGS quad _____, Hand-held GPS <input checked="" type="checkbox"/>, Survey-grade GPS _____</p> <p style="text-align: center;"><u>SW</u> ¼ <u>SE</u> ¼, Sec <u>16</u> T <u>20N</u> R <u>01W</u></p> <p style="text-align: center;"><u>2.0</u> Miles <u>West</u> of <u>Shellmound MS</u> <i>(Distance) (Direction) (Nearest Town)</i></p>
<u>Ruston</u>	<u>LA</u>	<u>71270</u>					
City	State	Zip Code					

Well / Borehole Data

Date drilling started: 4/2/2019 Date drilling completed: 4/2/2019 Hole depth: 72.5 ft bl Hole diameter: 3.25 in

Location of the source of any surface water used for drilling: none used

Method of dosing and volume of Chlorine used in drilling and development: none used

Logs run (check applicable): No log run Electric Gamma Ray Density Sonic Neutron Other: _____

Name of organization running log(s): USGS, 3095 W. California Ave, Ruston, LA 71270 (318) 251-9630 x13

Purpose of borehole (check one): Water Well Geotechnical/Geological Investigation Ground Source Heat Pump
 Seismic Survey Other (describe) _____

If drilling is not related to water well construction, skip the remainder of this block

Purpose of Well (check all applicable): Home Industrial Public Supply Irrigation Fish Culture other

Other (describe): monitoring well

If a flowing well, method of flow regulation: Valve _____ Other (describe) _____

Static Water Level: 29.97 feet above or below land surface Date measured: 4/3/2019 @ 0720
(check one)

Method of measurement (check one) Steel tape Electric tape Air line Other (describe): _____

Well depth: 72.5 Well grouted to a depth of: 30 feet Type of grout (check one): Neat Cement Bentonite Mix

Casing length: 62.5 feet Casing diameter: 2 inches Type of casing: PVC

Screen length: 10 feet Screen diameter: 2 inches Type of screen: PVC

Screen slot size: 0.010 inches Setting depth: From 62.5 feet to 72.5 feet

Type of completion (check all applicable): Gravel packed Underreamed Open hole Natural Development

Other (describe): _____

Top of lap pipe or reduction in casing: NA feet

If telescoped or more than one screen, describe on next page



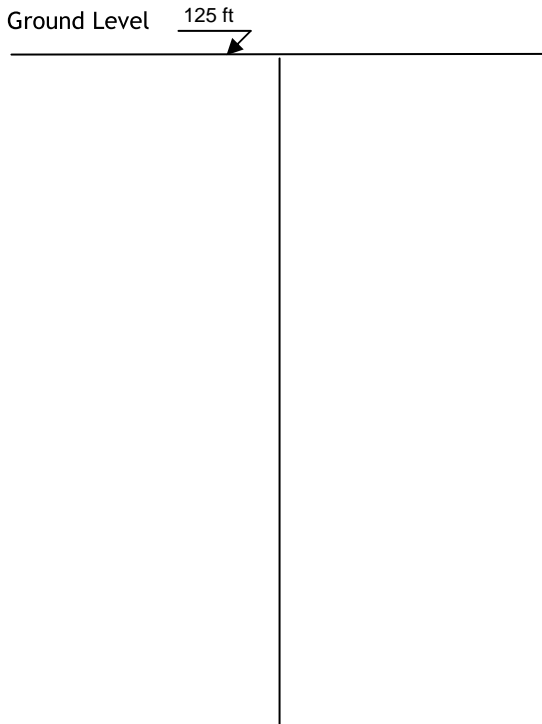


USGS site name: OW-01

County: Leflore
 Permit #: _____

For Office Use Only:
 Well #: G182

The sketch below only required for water wells
If well telescopes, show depths on sketch.



Description of formations encountered must be provided for all wells and boreholes, unless specifically exempted by regulations

Description of Formations Encountered	From (depth)	To (depth)
	Ground level	
Description of direct-push		
Pushed easily, likely clay	0	35
Pushed difficult, likely sand	35	40
Pushed moderately diff, likely sand	40	50
Pushed easily, like sand	50	72.5

If more than one screen, show location of each on sketch

- Sketch the property layout and include the following:
- 1) the well location
 - 2) any permanent structures on the property that may aid in locating the well
 - 3) any roads, power lines, or other items that may aid in locating the property and the well
 - 4) north arrow



Landowner Name: x

I HEREBY CERTIFY that the well/borehole was drilled, constructed, and completed in accordance with all applicable requirements of the Mississippi Department of Environmental Quality and the Mississippi Department of Health regulations, if applicable, and state laws.

Roland W Tollett
 Print Name of Responsible Licensee and License No.

5/3/2019
 Date

ROLAND TOLLETT Digitally signed by ROLAND TOLLETT
 Date: 2019.06.04 12:53:06 -05'00'
 Signature of Licensee

STATE WELL REPORT

Part 2

Pump Installer's Completion Report
 Mississippi Department of Environmental Quality
 Office of Land and Water Resources
 P.O. Box 2309
 Jackson, MS 39225-2309
 (601)961-5210
 (601) 360-0535 (fax)

For Office Use Only:

Well #: **G182**
 Aquifer: _____

County: Leflore
 Permit #: _____
 Driller: _____
 Date completed: _____
Copy information from block on Part 1

This part of the report must be completed by a licensed water well contractor or a licensed pump installer. A copy of Part 1 of the report must be attached and both parts filed with the Department at the above address within 30 days of well completion.

Well Owner Information	Well Location
Owner Name: <u>Leflore County Schools (landowner)</u>	Latitude: _____ Longitude: _____
Mailing Address: _____	Method of Lat/Long (check one): Conventional Survey _____,
_____	USGS quad _____, Hand-held GPS _____, Survey-grade GPS _____
City _____ State _____ Zip Code _____	_____ 1/4 _____ 1/4, Sec _____ T _____ R _____
Telephone No. (____) _____	_____ Miles _____ of _____ (Distance) (Direction) (Nearest Town)

Pump Type (check one)

Submersible Turbine Air Lift Centrifugal Flowing Well Jet Piston Rotary Other (describe): _____

Date Pump Installed: _____ Rated Pump Capacity: _____ Gallons Per Minute

Is This Pump (check one): New Repaired Replacement

Power Type (check one)

Electric Diesel Gasoline Natural Gas Tractor PTO Windmill Other (describe): _____

Horse Power Rating of Motor: _____ Setting Depth: _____ feet Number of Stages: _____

Pump Test Data for Non Flowing Well

Date Well Tested: _____ Duration of Pump Test (minimum 4 hours): _____ hours

Static Water Level (A): _____ Feet Below Land Surface Pumping Water Level (B): _____ Feet Below Land Surface

Drawdown [(B) - (A)]: _____ Feet Below Land Surface Test Pumping Rate: _____ Gallons Per Minute

Method of measurement (check one): Steel tape Electric tape Air line Other (describe): _____

Pump Test Data for Flowing Well

Measured shut in head: _____ feet.

Well yielded _____ GPM with a drawdown of _____ feet after _____ hours of pumping

Meter Installation

Meter Manufacturer: _____ Meter Serial Number: _____

Meter Model Number/Name: _____ Type of Meter: _____

Totalizer Register Unit and Multiplier Factor (AF x .001, gal x 1000, etc): _____

Installation Date: _____ Meter installed by: _____

Is This Meter (check one): New Repaired Replacement

Important: By submitting the above information you are certifying that this meter was installed to manufacturer standards. For agricultural wells, a list of approved meters is on the MDEQ website.

I HEREBY CERTIFY that the above statements are true to the best of my knowledge.

Print Name of Pump Installer and License No. (if applicable)	<div style="border: 2px solid red; padding: 5px; display: inline-block;"> <p style="margin: 0;">RECEIVED</p> <p style="margin: 0;">Date</p> <p style="margin: 0; font-size: 1.2em;">06-14-2019</p> <p style="margin: 0;">BY OLWR</p> </div>	Signature of Pump Installer
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Driller: Roland W Tollett, USGS, 3095 W California Ave, Ruston, LA 71270 [318-245-8639] (MS LIC RMO-00009026)

Site number: <MDEQ no> Leflore OW-01

Drill date: 20190402

Plugged date: active monitoring well

Site type: USGS monitoring well

Well depth: 72.5 ft bls (MP=2.5ft)

EC-log depth none (nearest EC-log SM-02-BH 333550090174201 about 1,200 ft north of this well)

Rig Type: Geoprobe 7822DT

Lat/Long 33.59312 -090.30096

Sec Township Range: SW1/4,SE1/4,S16,T20N,R01W

Land surface elevation: 38.1 meters (125 feet; accuracy 1.6 ft) [data source: DEM]

Topo Map Name: Shellmound, MS

County/Parish: 083 Leflore County, MS (1:24,000)

HUC code: 080302070802 Lake Henry

MAPS site_no for USGS NWIS: 333535090180301

Land owner: x

This well was drilled as part of a collaboration between USDA ARS (Oxford MS) and the USGS to study artificial groundwater recharge rates via injection in the MRVA aquifer.



***** USER NOTES *****

Drilled by Roland (USGS Ruston LA) and Wesley Bolton (USDA ARS Oxford MS).

Driller notes (ROP is rate of penetration; TOC is top of 2" PVC casing; MP is 2.5 ft):

0-35 ft intervals pushed easily; likely high clay content; ROP was about 1 inch per 0.25 to 0.75 second

35-40 ft interval was more difficult to push; ROP was about 1 inch per 2 to 3 seconds

40-50 ft intervals were moderately difficult to push; ROP was about 1 inch per 2 seconds

50-72.5 ft intervals were easy to push; ROP was about 1 to 2 seconds per inch

Blueish gray clay was seen on the wiper after pulling rods

Well construction: This 2" PVC monitoring well is ~75 ft from bottom of point to TOC with a 10 ft screen; screened interval is 62.5-72.5 ft bls; MP is 2.50 ft above land surface with aluminum protective riser and 1.5 ft radius concrete slab; about 3 inches of PVC casing was cut off TOC to remove the sharp female thread edge to protect e-tapes and a 4" point was added to btm of casing; about 3 gallons of tap water were poured into PVC casing prior to pulling rods; this technique was used to balance and equalize pressure.

About 2 cups of bentonite granules were poured into the annular space of the borehole and bridged over ~ 30 ft below land surface (bls). Portland cement at a tap water ratio of 5-6 gals per 92-lb bag was used to seal the borehole from about 30 ft bls to land surface.

Water level:

4/2/19 @ 1230 = 33.21 – 2.50 = 30.71 (tap water added to well during installation may influence this WL slightly)

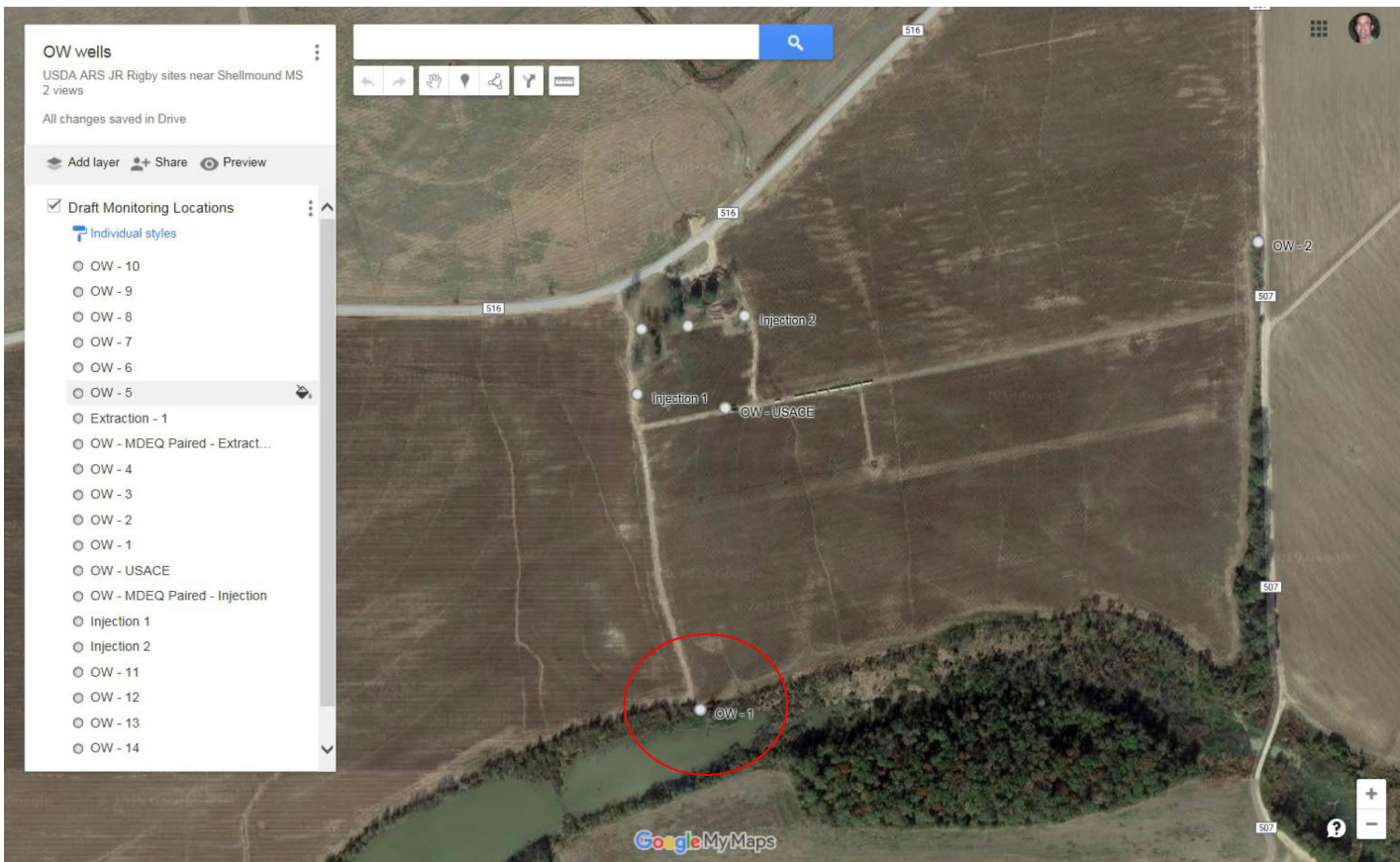
4/2/19 @ 1230 = 33.17 – 2.50 = 30.67 (tap water added to well during installation may influence this WL slightly)

4/3/19 @ 0720 = 32.47 – 2.50 = 29.97 (use this WL) (measured by Wesley Bolton of USDA ARS)

4/29/19 @ 1545 = 32.21 – 2.50 = 29.71 (measured by Roland W Tollett USGS)

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Figure 1. Location of monitoring well OW-01.



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New Site Sheet Form - MAPS

File Tables Search Network Help

NEW SITE

Site Record

Agency Code USGS : U.S. Geologica Site Number 333535090180301 Site Type Code GW

Station Name Agency Use Code

Coordinate/Altitude Data

Latitude 333535.23 Longitude 0901803.46 Coordinate Accuracy H: Hndrth secon Coordinate Method G: GPS

Coordinate Datum NAD83: NA Datum of 1983 Latitude NAD83 in decimal degrees Longitude NAD83 in decimal degrees

Altitude in ft 125 Altitude Datum Code NAVD88: V Datum of 1988 Altitude Method Code N: DEM Altitude Accuracy Value in ft 1.6

Surface Water Data

Drainage Area in sq mi Basin Code

Contributing Drainage Area in sq mi

Hydrologic Unit Code 080302070802 Lake Henry

Spatial Data

Land Net S16 T20N R01W O Topographic Code

Map Name SHELLMOUND, MS Map Scale 24000

Groundwater Data

Aquifer Code

National Aquifer Code

Aquifer Type Code

Well Depth in ft

Hole Depth in ft

Source of Depth

Administrative Data

Country Code US: United Stat

State Fips Code 28: Mississippi

County Fips Code 083: Leflore Co

Minor Civil Division 91854: District 3

District Code 28: MISSISSIPPI

Time Zone Code CST : Central Standar

Daylight Savings Time Flag Y: Yes

Use Data

Primary Use of Site

Secondary Use of Site

Tertiary Use of Site Code

Primary Use of Water Code

Secondary Use of Water Code

Tertiary Use of Water Code

National Water Use Code

Data Collection and Dates

Data Reliability Code Site Establishment Date First Construction Date

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