

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: Yazoo, MS
Permit #: _____
Driller: Roland W Tollett (RMO-00009026)
Date drilling completed: 7-24-2019

For Office Use Only:

Well #: Q87
Aquifer: _____
E-Log #: _____

RECEIVED

12-03-2019

BY OLWR

USGS site name: YZ-07b

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.

Well Owner Information (Landowner if borehole is not for a water well)	<input checked="" type="checkbox"/> Well or <input type="checkbox"/> Borehole Location
Owner Name: <u>Doug Warren (landowner)</u>	Latitude: <u>32.67887</u> Longitude: <u>-090.54291</u>
Mailing Address: <u>USGS (driller - rtollett@usgs.gov)</u> <u>3095 W. California Ave</u>	Method of Lat/Long (check one): Conventional Survey _____, USGS quad _____, Hand-held GPS <u>X</u> , Survey-grade GPS _____
<u>Ruston</u> <u>LA</u> <u>71270</u> City State Zip Code	<u>SW</u> <u>1/4</u> <u>SE</u> <u>1/4</u> , Sec <u>30</u> T <u>10N</u> R <u>03W</u>
Telephone No. (<u>318</u>) <u>251-9630</u> (245-8639 cell)	<u>1</u> Miles <u>North</u> of <u>Satarzia, MS</u> (Distance) (Direction) (Nearest Town)

Well / Borehole Data	
Date drilling started: <u>7/25/19</u> Date drilling completed: <u>7/25/19</u> Hole depth: <u>65 ft bls</u> Hole diameter: <u>3.25 in</u>	
Location of the source of any surface water used for drilling: <u>none used</u>	
Method of dosing and volume of Chlorine used in drilling and development: <u>none used</u>	
Logs run (check applicable): <input checked="" type="checkbox"/> No log run <input type="checkbox"/> Electric <input type="checkbox"/> Gamma Ray <input type="checkbox"/> Density <input type="checkbox"/> Sonic <input type="checkbox"/> Neutron <input type="checkbox"/> Other: _____	
Name of organization running log(s): <u>USGS, 3095 W. California Ave, Ruston, LA 71270 (318) 251-9630 x13</u>	
Purpose of borehole (check one): <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Geotechnical/Geological Investigation <input type="checkbox"/> Ground Source Heat Pump <input type="checkbox"/> Seismic Survey <input type="checkbox"/> Other (describe) _____	
<i>If drilling is not related to water well construction, skip the remainder of this block</i>	
Purpose of Well (check all applicable): <input type="checkbox"/> Home <input type="checkbox"/> Industrial <input type="checkbox"/> Public Supply <input type="checkbox"/> Irrigation <input type="checkbox"/> Fish Culture <input checked="" type="checkbox"/> other	
Other (describe): <u>monitoring well</u>	
If a flowing well, method of flow regulation: Valve _____ Other (describe) _____	
Static Water Level: <u>4.20</u> feet <input type="checkbox"/> above or <input checked="" type="checkbox"/> below land surface Date measured: <u>7/29/19 @ 0945</u> (check one)	
Method of measurement (check one) <input type="checkbox"/> Steel tape <input checked="" type="checkbox"/> Electric tape <input type="checkbox"/> Air line <input type="checkbox"/> Other (describe): _____	
Well depth: <u>47</u> Well grouted to a depth of: <u>20</u> feet Type of grout (check one): <input checked="" type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Mix	
Casing length: <u>37</u> feet Casing diameter: <u>2</u> inches Type of casing: <u>PVC</u>	
Screen length: <u>10</u> feet Screen diameter: <u>2</u> inches Type of screen: <u>PVC</u>	
Screen slot size: <u>.010</u> inches Setting depth: From <u>37</u> feet to <u>47</u> feet	
Type of completion (check all applicable): <input type="checkbox"/> Gravel packed <input type="checkbox"/> Underreamed <input type="checkbox"/> Open hole <input checked="" type="checkbox"/> Natural Development	
Other (describe): _____	
Top of lap pipe or reduction in casing: <u>NA</u> feet	
<i>If telescoped or more than one screen, describe on next page</i>	

Driller: Roland W Tollett, USGS, 3095 W California Ave, Ruston, LA 71270 [318-245-8639] (MS LIC RMO-00009026)

Site number: [163Q0087] YZ-07b

Drill date: 20190725

Plugged date: active monitoring well

Site type: USGS monitoring well

EC-log depth refer to YZ-07a-EC

Monitoring well depth: 47 ft bls

Rig Type: Geoprobe 7822DT with EC-HPT probe

Lat/Long 32.67887 -090.54291 +- 4ft

Sec Township Range: SW1/4,SE1/4,S30,T10N,R03W

Land surface elevation: 30.8 meters (101 feet) [data source: DEM]

Topo Map Name: SATARTIA, MS

County/Parish: 163 Yazoo County, MS (1:24,000)

HUC code: 080302060805 Dump Lake-Yazoo River

Associated well in USGS NWIS: 324044090323402

Land owner: Doug Warren



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

Drilled by Roland (USGS Ruston LA) and Shane Stocks (USGS Jackson MS)

Note that there are two monitoring wells at this site.

EC-log for adjacent hole (refer to YZ-07a-EC) shows clay from near surface to 40 ft bls; sand 40–60 ft bls; clay 60–78 ft bls; sand 78–98 ft bls.

Core intervals for this borehole: 9.5–14.5; 29.5–34.5; 39.5–44.5; 59.5–64.5.

Successful pushed 3.25" rods to install a 47 ft bls monitoring well.

Well construction: This 2" PVC monitoring well is ~50 ft from bottom of point to TOC with a 10 ft screen; screened interval is ~37–47 ft bls; MP is 3.00 above land surface with aluminum protective riser and 2 ft radius concrete slab; a 4" point was added to btm of casing; about 5 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 around 20 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. PVC guard posts were installed to help locate well when grass is high.

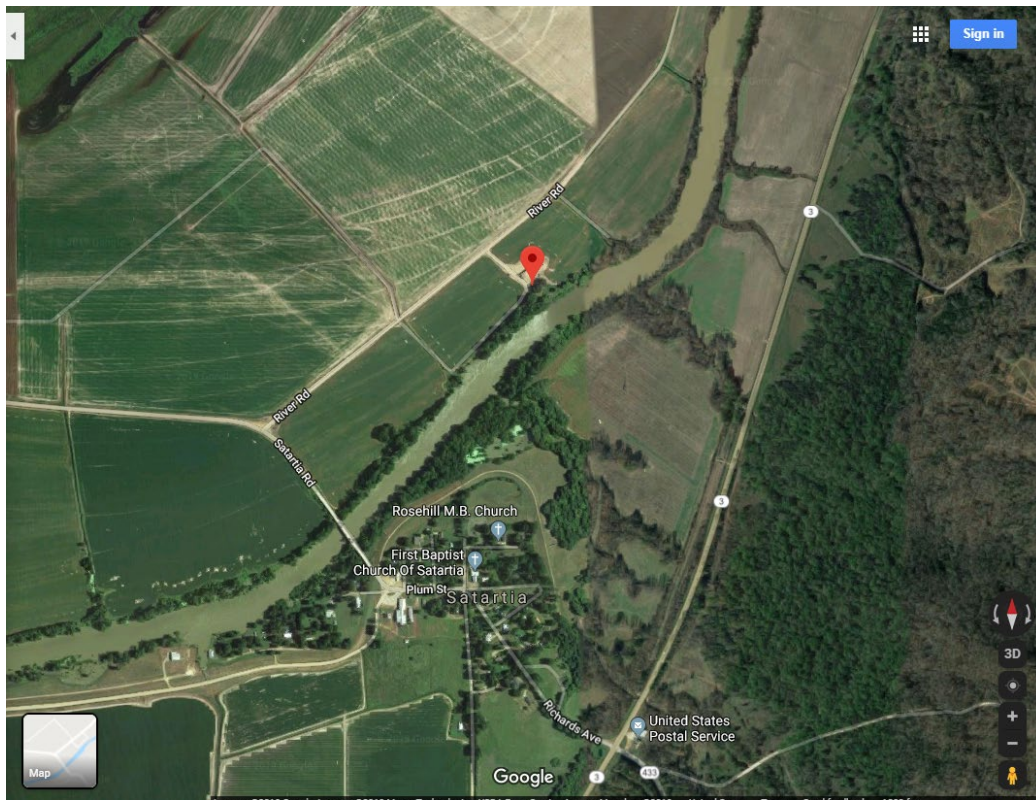
Water level:

7/29/19 @ 0945 = 8.20 - 1.00 - 3.00 = 4.20 ft bls measured with e-tape by Roland W Tollett of the USGS.

*Note that all water level tapes used by the USGS are calibrated by the HIF.

USGS Borehole YZ-07b (continued)

Figure 1. Location of monitoring well YZ-07b near Satarzia/Yazoo City, MS.





USGS Borehole YZ-07b (continued)

