

Report of Findings
Aquifer Test Results of the Headwaters GCD
Monitoring Well No. 20:
Kerr County, Texas

For:
Headwaters Groundwater Conservation District
125 Lehmann Drive, Suite 202
Kerrville, TX 78028-6059



Wet Rock Groundwater Services, L.L.C.

Groundwater Specialists

TBPG Firm No: 50038

317 Ranch Road 620 South, Suite 303

Austin, TX 78734 Ph: 512.773.3226

www.wetrockgs.com

REPORT OF FINDINGS

WRGS 22-011

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125 Lehmann Drive, Suite 202

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November 2022

WRGS Project No. 072-001-22



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The seal appearing on this document was authorized by Kaveh Khorzad, P.G. 1126 on November 16, 2022.



A handwritten signature in black ink that reads "Kaveh Khorzad".

Kaveh Khorzad, P.G.

License No. 1126

Wet Rock Groundwater Services, LLC

TBPG Firm Registration No. 50038



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Section I: Introduction

The Headwaters Groundwater Conservation District (HGCD) Monitoring Well No. 20 (Well No. 20) is located 7 miles northeast of the City of Kerrville at the end of Schultz Road (Figure 1). The well was drilled to explore the groundwater resources of the geologic units beneath the Trinity Aquifer, specifically the Ellenburger Formation. This report provides a summary of the aquifer testing and analysis of Well No. 20 conducted by Wet Rock Groundwater Services, LLC (WRGS).

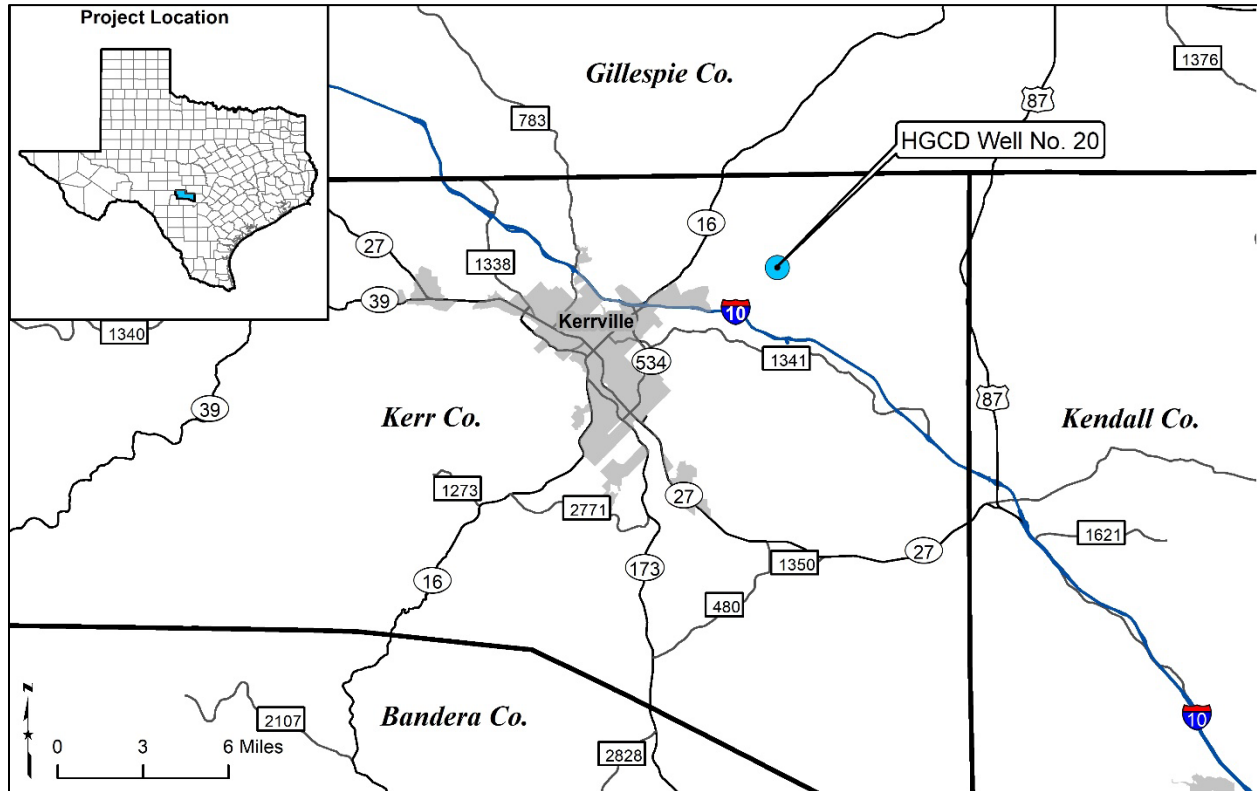


Figure 1: General location map



Section II: Well Details and Aquifer Testing

II.1. Introduction

McKinley Drilling completed Well No. 20 on August 25, 2022; upon completion of the well, both McKinley Drilling and WRGS coordinated to perform a 24-hour aquifer test on Well No. 20. Figure 2 provides a site map showing the location of Well No. 20; Appendix A provides the State Well Report for the well; and Appendix B provides the geophysical logs conducted on the well.

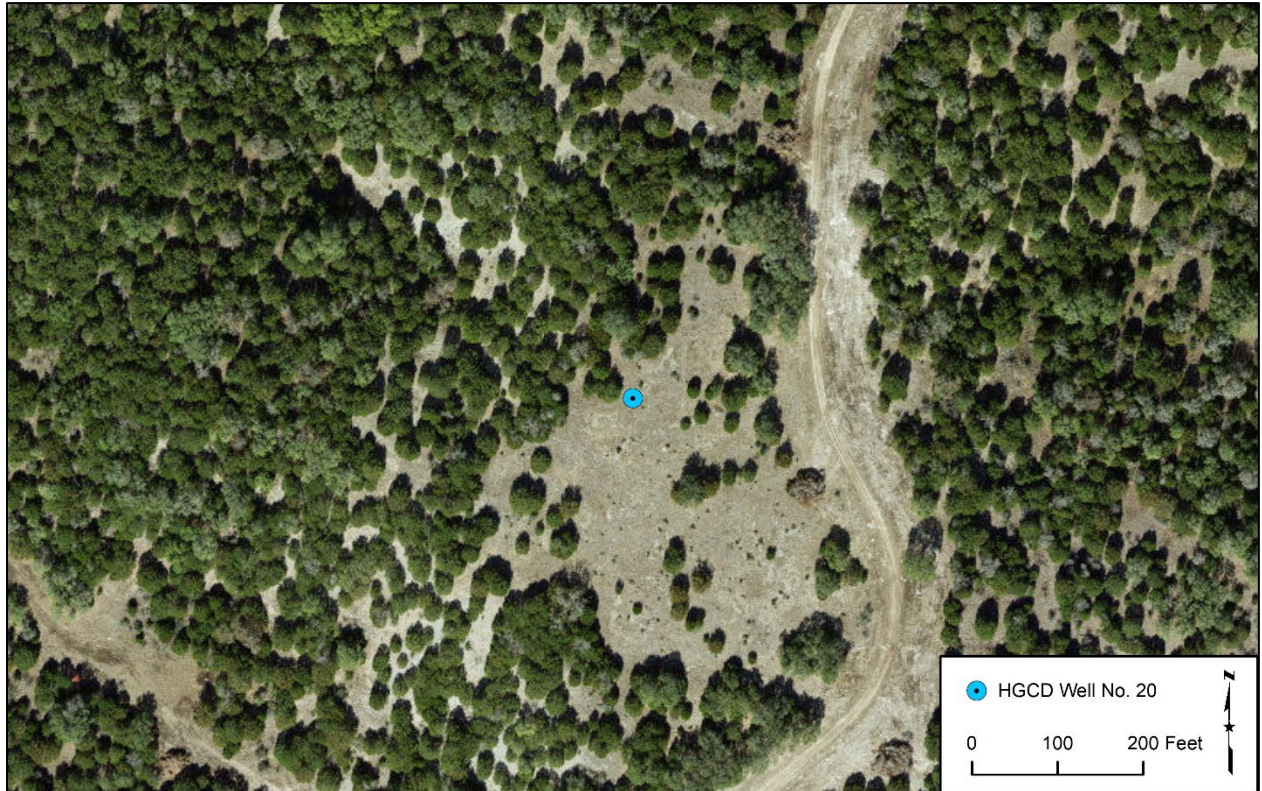


Figure 2: Well location map

II.2. Well Details

Table 1 provides a well construction summary and Figure 3 provides illustrations showing well construction with respective formation depths from Well No. 20.

HGCD Well No. 20

During construction, an 8 3/4-inch pilot hole was drilled to a depth of 850 feet below ground level (ft. bgl) in order to characterize the subsurface geology and to determine the feasibility of the groundwater resources beneath the Trinity Aquifer. Cuttings were analyzed by HGCD geologists, and a suite of geophysical logs were performed by two companies, GeoCam, Inc. on July 20, 2022 and Schlumberger on September 27, 2022 to determine formation depths, thicknesses, and geologic characteristics (Appendix B). According to geophysical and driller's logs, the following formations/units were encountered:



- Fort Terrett from the surface to 78 ft. bgl;
- Glen Rose Limestone from 78 to 405 ft. bgl;
- Hensell Sand from 405 ft. bgl to 740 ft. bgl;
- Ellenburger from 740 ft. bgl to 850 ft. bgl;

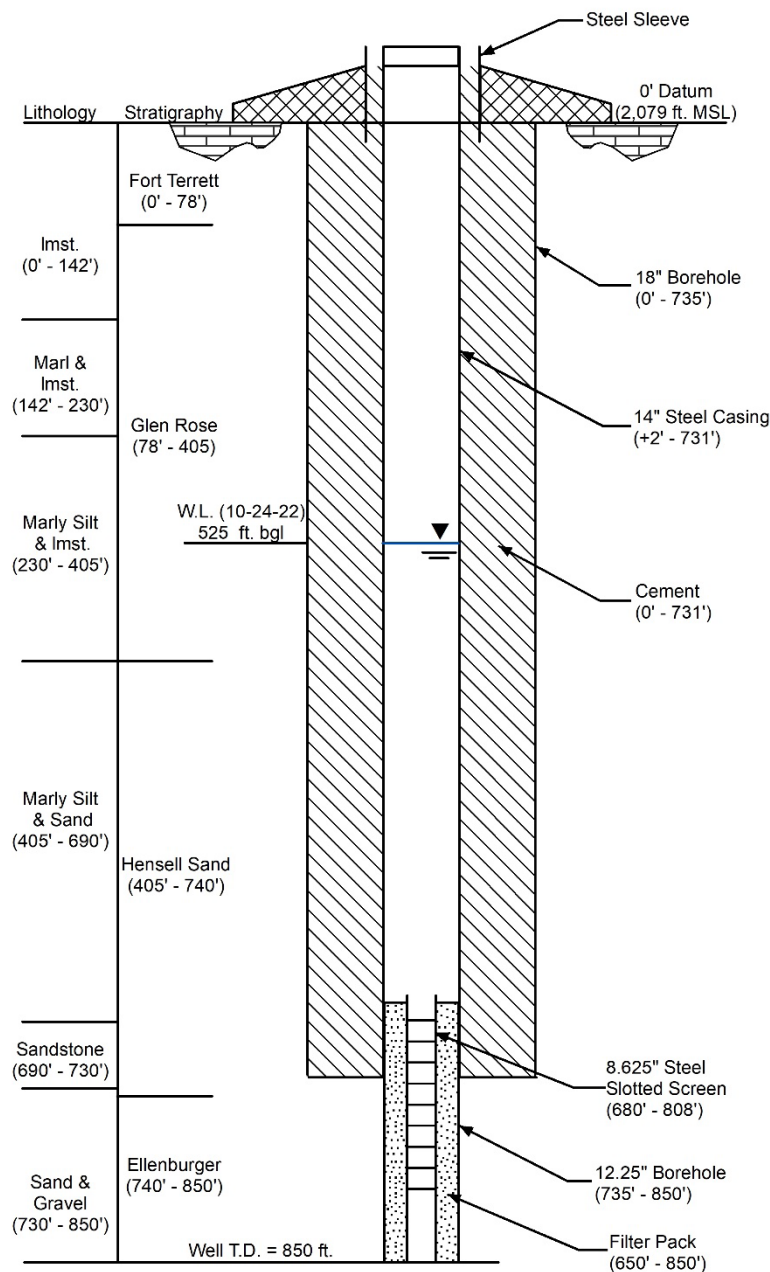
According to the State Well Report (Tracking No. 623075; Appendix A), the final well construction consists of 733 feet of 14-inch steel casing pressure cemented to 731 ft. bgl, and 8 5/8-inch slotted steel casing from 680 to 808 ft. bgl (Figure 3).

Table 1: Well construction summary

Well	Tracking No.	Construction Date	Elevation (ft. MSL)	Production Zone	Well Depth (ft. bgl)	Static Water Level (date ft. bgl; ft. MSL)	Borehole (diameter; ft. bgl)	Casing (diameter; material; ft. bgl)	Screen (diameter; material; ft. bgl)
HGCD Well No. 20	623075	10/25/2022	2,079	Hensell Sand & Ellenburger Formation	850	10/24/2022 525.0 (1,554.0)	18" (0' - 735')	14" Steel (+2' - 731')	8 5/8" Slotted Steel (680' - 808')
						12 1/4" (735' - 850')			
Notes: ft. = feet; MSL = Mean Sea Level; bgl = below ground level									



Well No. 20



Notes:

- Well profiles created with the information from State Well Reports, Geophysical Logs and Drill Cuttings.
- Figure for schematic purposes; not drawn to scale.

Figure 3: Well construction profile of HGCD Well No. 20



II.3. Aquifer Test

A 24-hour aquifer test was conducted to assess the site-specific hydrogeologic properties of the Hensell Sand and Ellenburger Formation. Prior to the start of the aquifer test, a pressure transducer capable of measuring the water level and temperature at one-minute intervals was placed in Well No. 20 to gather data for the duration of the test. Figure 4 provides a graph of the water level in the pumping well during the aquifer test.

A vertical turbine lineshaft pump (SM13 10 Stage) powered by a 230 horsepower (HP) motor was set in Well No. 20 on 640 feet of 8-inch steel column pipe. The pump was started on October 24, 2022 at 10:44 AM and ran for 24 hours. Water levels in the well were monitored for the duration of the 24-hour test. After the pump was stopped, the water level recovery was measured in the well for 72 hours. Prior to the pumping phase of the aquifer test, the static water level was measured at 525.0 ft. bgl (1,554 ft. Mean Sea Level; MSL) in Well No. 20.

Well No. 20 was pumped at an average rate of 152 gallons per minute (gpm) for 24 hours with an initial pumping rate of 180 gpm and a final pumping rate of 150 gpm with 90 feet of drawdown, resulting in a specific capacity of 1.66 gpm/ft. During the aquifer test, the water level dropped approximately 114 feet within the first few minutes of pumping, but recovered and then slowly declined reaching a stable pumping level throughout the remainder of the pumping phase (Figure 4, Appendix C). After the pump was shut off, recovery was measured in the pumping well for approximately 72 hours; during that time, the water level recovered by approximately 90% after 72 hours (Appendix C). Due to a check valve malfunction, the water level briefly rose to a higher level than static 5 minutes after the pump was shut off, but the issue was resolved and recovery was normal after that (Figure4, Appendix C).

The aquifer test data was analyzed using the Cooper and Jacob (1946) solution to calculate transmissivity and hydraulic conductivity for the pumping well (Appendix C). The analyses resulted in a transmissivity of 602.1 ft.²/day and a hydraulic conductivity of 2.13 ft./day for Well No. 20. A summary of the aquifer test results is provided in Table 2. There were no discernable boundary conditions detected from the aquifer test data.

Table 2: Summary of aquifer test results

Date	Well	Final Pump Rate (gpm)	Drawdown (ft.)	Specific Capacity (gpm/ft.)	Transmissivity (ft. ² /d)	Hydraulic Conductivity (ft./d)	Storativity
10/24/2022	Well No. 20	150	90.28	1.66	1,195.8	4.23	-

Notes: PW = Pumping Well; ft. = feet; gpm = gallons per minute; d = day.



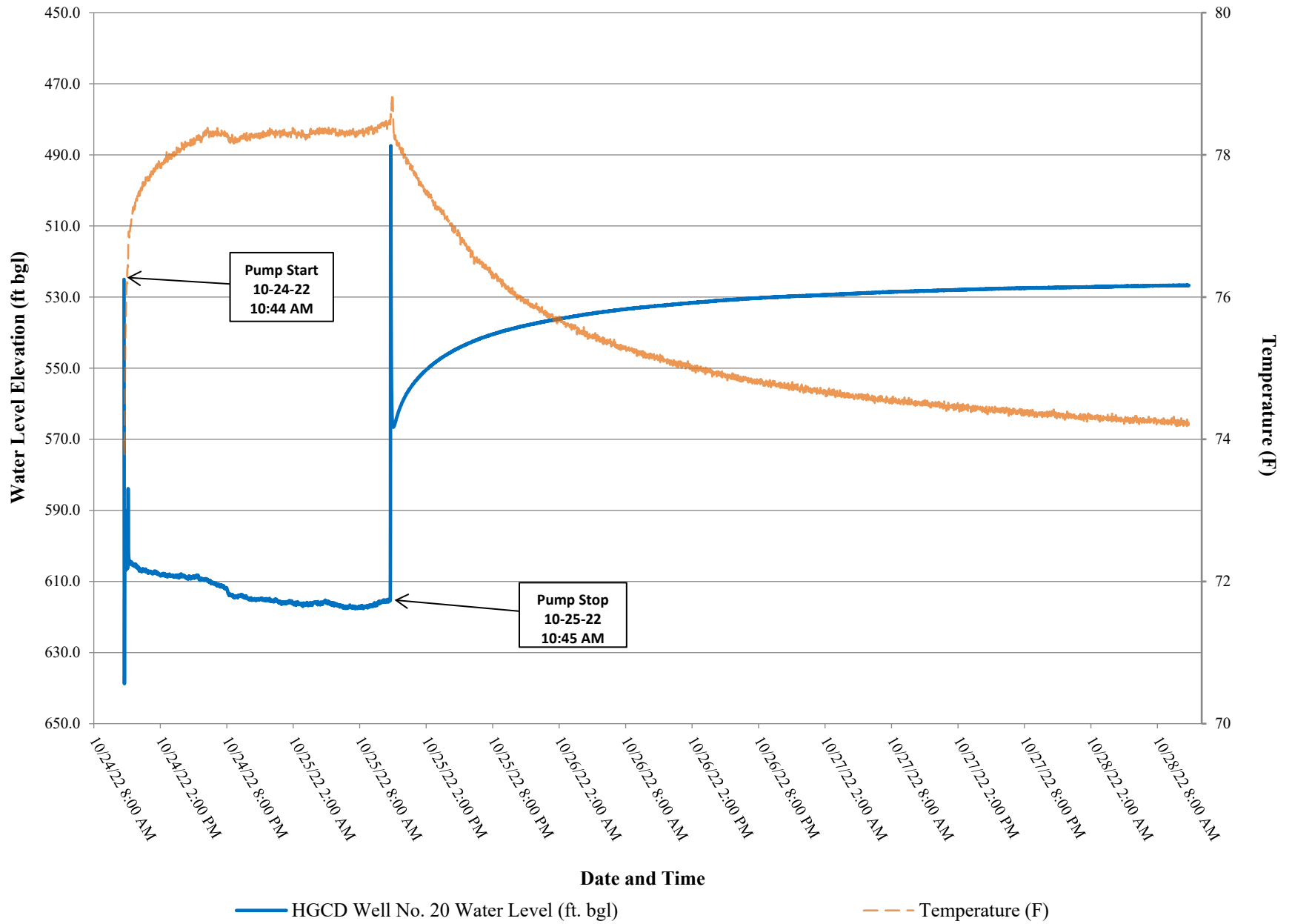


Figure 4: HGCD Well No. 20 aquifer test (October 24, 2022)



Section III: Water Quality

A water quality sample was collected from the pumping well at the end of the pumping phase. The sample was collected by Peerless Equipment staff in a sealed container and stored on ice in a cooler. The samples were transported after collection to Pollution Control Services and tested in accordance with Texas Administrative Code 230.9 (Determination of Groundwater Quality). Appendix D provides a copy of the water quality reports.

Table 4 provides the water quality summary. The results were compared to Texas Commission on Environmental Quality (TCEQ) Maximum Contaminant Levels (MCL) and Secondary Contaminant Levels (SCL). When compared to TCEQ MCLs and the SCLs the results show elevated levels of chloride, iron, manganese, and TDS as well as low pH in Well No. 20. The well had been recently acidized and the water quality results clearly show the effects of the acidization. The acidization process dissolves the rock and sediments leading to elevated concentrations of constituents and a low pH. We would recommend purging the well until the acid has been fully removed before collecting a water sample.

		Cl	Conductivity (umhos/cm)	F	Fe	NO3	Mn	pH	SO4	Hardness (as CaCO3)	TDS
		TCEQ MCLs & SCLs									
Well	Sample Data	300²		4¹ & 2²	0.3²	10¹	0.05²	≥7²	300²		1000²
No. 20	10/25/22	1,010	4,145	2.30	12.0	<2	0.450	5.8	92	1,031.3	3,756

Note: 1 = TCEQ Maximum Containment Level; 2 = TCEQ Secondary Constituent Level; Concentrations in red are above TCEQ SCLs; All units expressed in mg/L (except pH & conductivity).



Section IV: References

Cooper, H.H. and C.E. Jacob, 1946. A generalized graphical method for evaluating formation constants and summarizing well field history, Am. Geophys. Union Trans., vol. 27, pp. 526-534.



Appendix A

State of Texas Well Report



HGCD Monitoring Well No. 20

STATE OF TEXAS WELL REPORT for Tracking #623075

Owner:	Headwaters Groundwater Conservation	Owner Well #:	MW-20
Address:	125 Lehmann Dr. #201 Kerrville, TX 78028	Grid #:	56-64-3
Well Location:	Main gate to ranch is located at 30.05997*N, 99.02386* W. The well is located deep into this ranch and must go through three gates. The actual well location is located at 30.089356 N, -99.032454 W Comfort, TX 78013	Latitude:	30° 05' 21.68" N
		Longitude:	099° 01' 56.83" W
		Elevation:	2035 ft. above sea level
Well County:	Kerr		

Type of Work: New Well	Proposed Use: Monitor
-------------------------------	------------------------------

Drilling Start Date: **7/18/2022** Drilling End Date: **8/25/2022**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	18	0	735
	12.25	735	850

Drilling Method: **Air Rotary**

Borehole Completion: **Perforated or Slotted; Straight Wall**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	731	Cement 804 Cubic Feet

Seal Method: **Positive Displacement**

Distance to Property Line (ft.): **1650**

Sealed By: **CUDD Energy**

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

Distance to Septic Tank (ft.): **150+**

Method of Verification: **google earth pro**

Surface Completion: **Surface Slab Installed**

Surface Completion by Driller

Water Level: **525 ft. below land surface on 2022-10-24** Measurement Method: **Electric Line**

Packers: **K-Packer at 680 ft.**

Type of Pump: **Turbine** Pump Depth (ft.): **640**

Well Tests: **Pump** Yield: **150 GPM with 9 ft. drawdown after 24 hours**

Water Quality:	<i>Strata Depth (ft.)</i>	<i>Water Type</i>
	730 - 850	Ellenburger

Chemical Analysis Made: **No**

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: **McKinley Drilling**
313 US-90
Hondo, TX 78861

Driller Name: **Andrew Stevenson** License Number: **59646**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

<i>Top (ft.)</i>	<i>Bottom (ft.)</i>	<i>Description</i>
0	142	Limestone
142	230	Marl & Limestone (upper glen rose)
230	405	Marly Silt & Limestone (Lower Glen Rose)
405	690	Marly Silt & Sand (Upper Hensel Sand)
690	730	Sandstone (Middle Hensell Sand)
730	850	Sand & Gravel (Ellenburger)

<i>Dia (in.)</i>	<i>Type</i>	<i>Material</i>	<i>Sch./Gage</i>	<i>Top (ft.)</i>	<i>Bottom (ft.)</i>
14	Blank	New Steel	.325	0	731
8.625	Perforated or Slotted	New Steel	.325	680	808

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) 334-5540

Appendix B

Geophysical Logs



Geo Cam

HGCD Monitoring Well No. 20



Borehole: MW-20

Logs: GAMMA, RESISTIVITY, SP

Water Well Logging & Video Recording Services

Geo Cam, Inc. 17118 Classen Rd, San Antonio, TX 78247 877-495-9121

Project: HEADWATERS G.W.C.D. MW-20 Date: 07-20-2022

Client: MCKINLEY DRILLING County: KERR

Location: N 30° 05' 23.2" W 99° 01' 58.2" State: TX

BOREHOLE DATA

Drilling Contractor: MCKINLEY DRILLING Driller T.D. (ft) : 817'

Elevation: 2,068' GPS Logger T.D. (ft) : 728'

Depth Ref: R.T +4' Date Drilled:

BIT RECORD			CASING RECORD			
RUN	BIT SIZE (in)	FROM (ft)	TO (ft)	SIZE/WGT/THK	FROM (ft)	TO (ft)
1	NA			20" STEEL	+1'	25'
2	12 1/4"	25'		817'		
3						

Drill Method: AIR ROTARY Weight: Fluid Level (ft) : 526'

Hole Medium: Mud Type: Time Since Circ:

Viscosity: Rm: at: Deg C

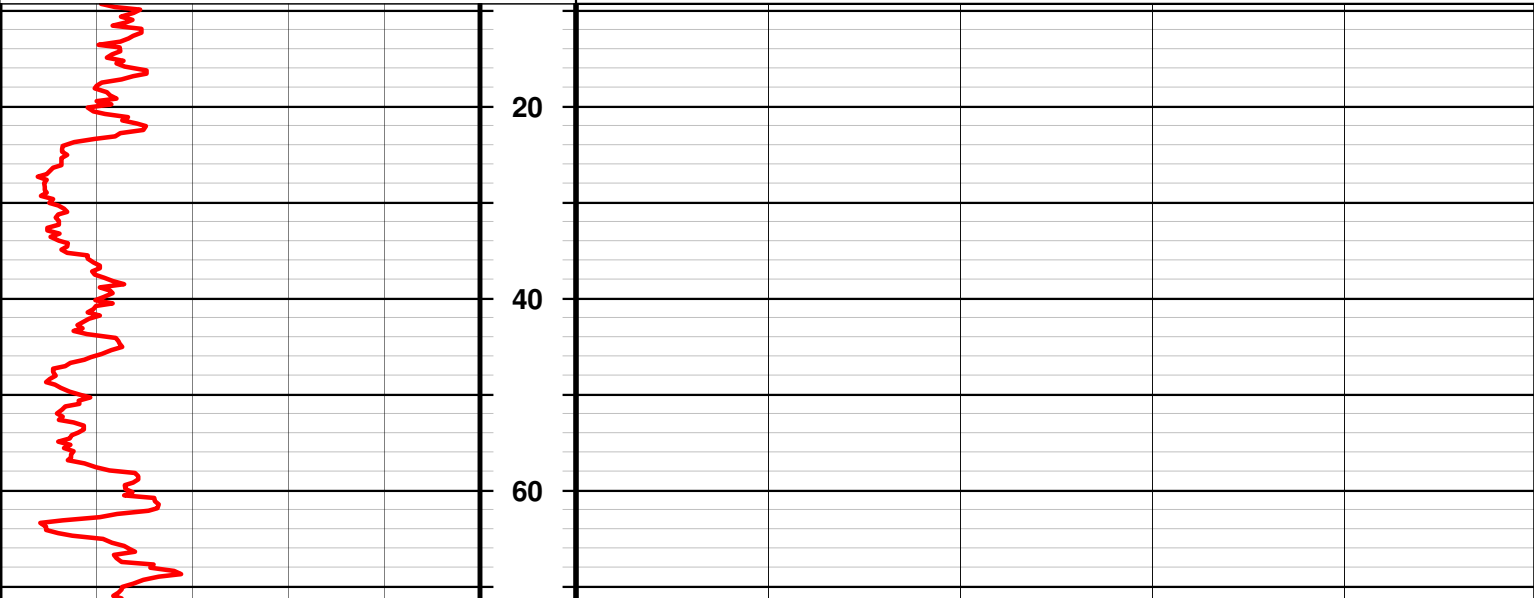
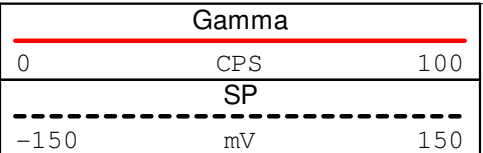
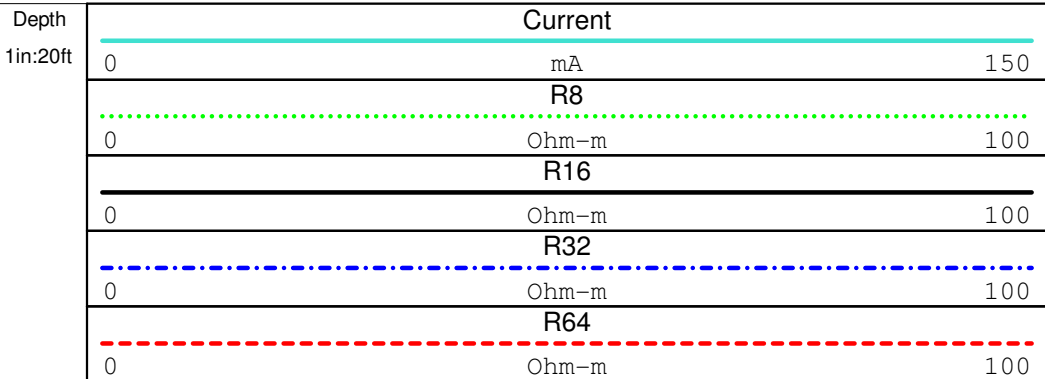
GENERAL DATA

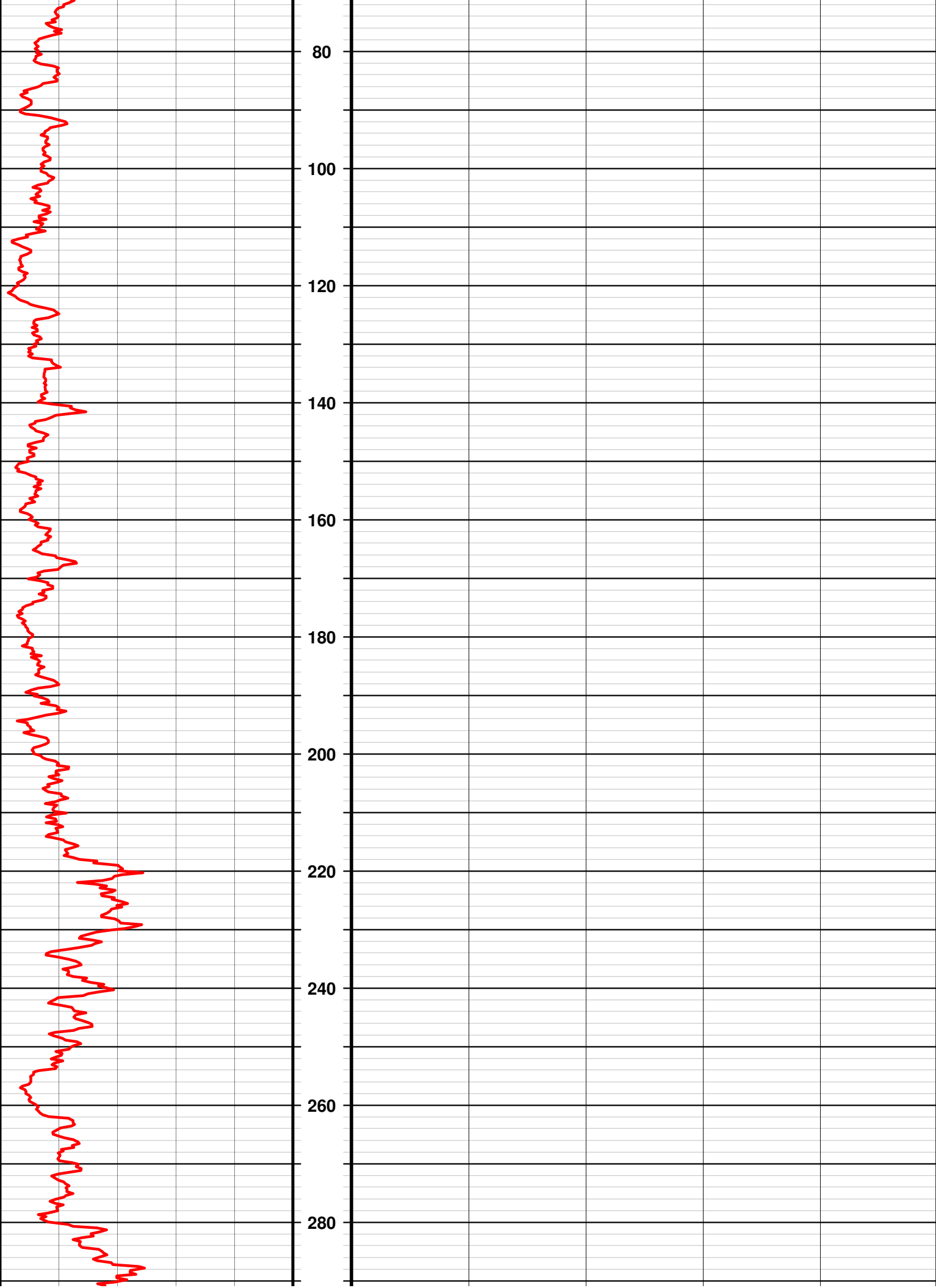
Logged By: KELLY TUTEN Unit/Truck: 11

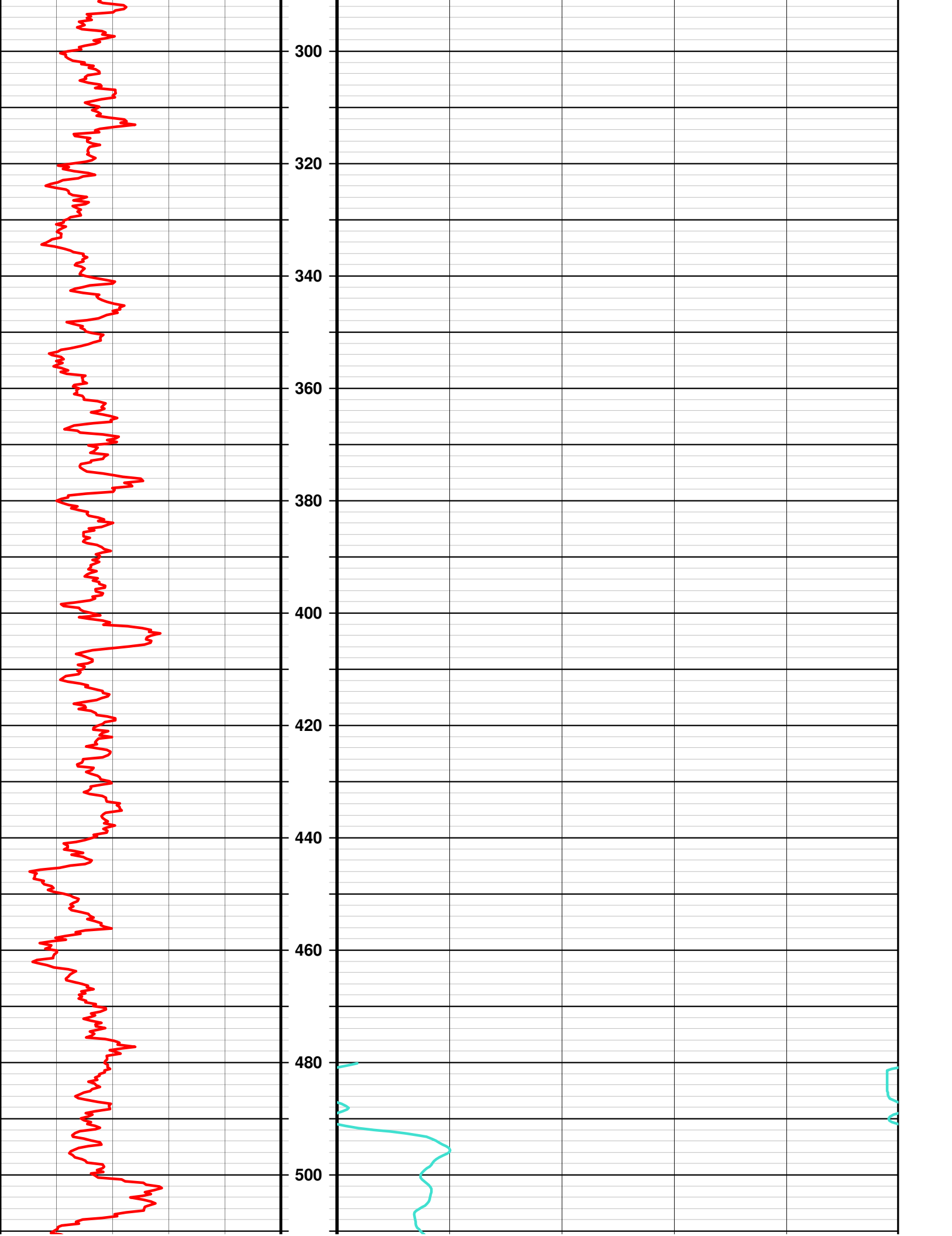
Witness:

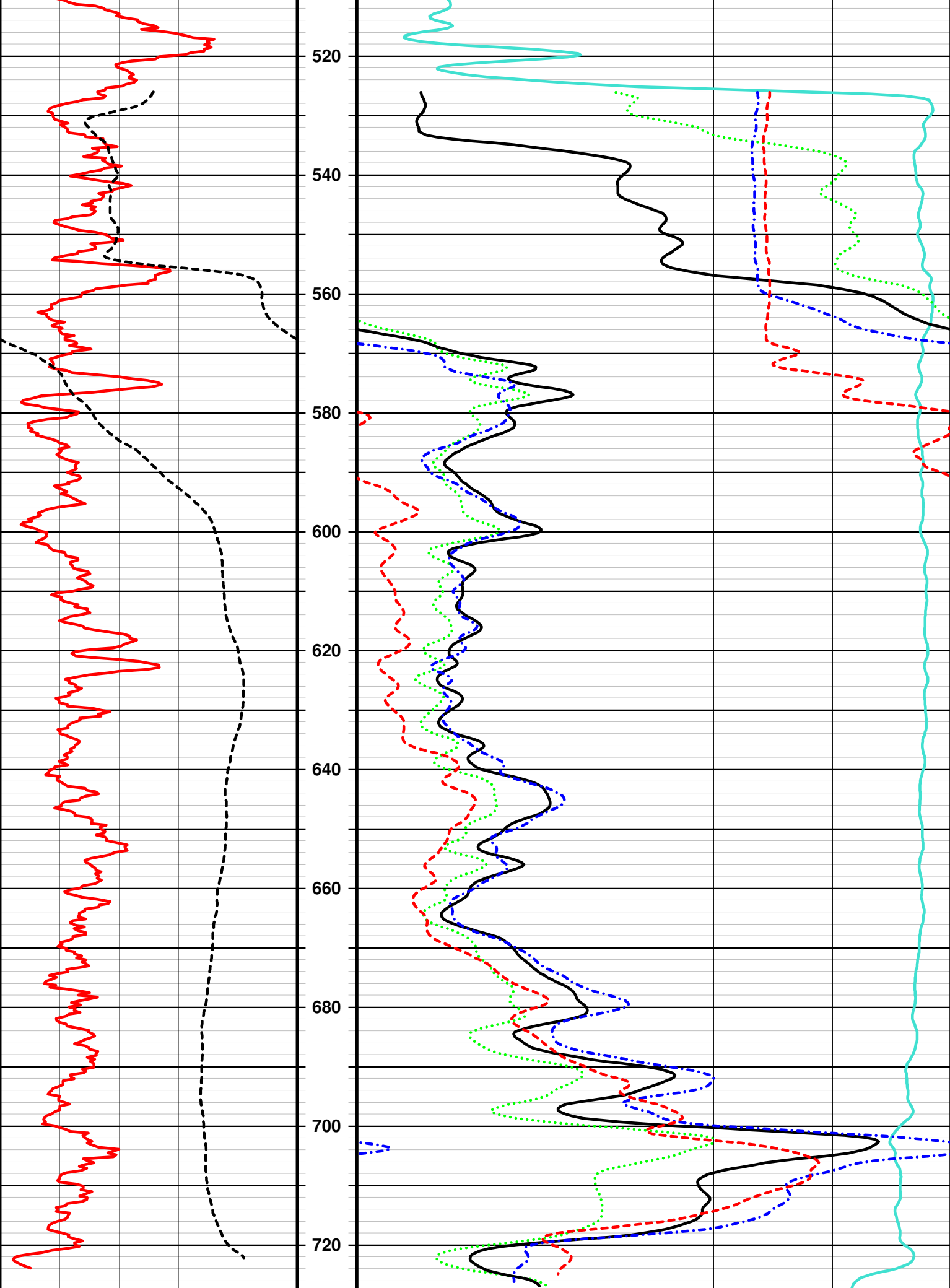
LOG TYPE	RUN NO	SPEED (ft/min)	FROM (ft)	TO (ft)	FT./IN.
GAMMA	2	35	724'	9'	20
RESISTIVITY, SP	2	35	726'	526'	20

Comments:









R64

SP		
-150	mV	150
Gamma		
0	CPS	100

Depth
1in:20ft

0	Ohm-m	100
R32		
0	Ohm-m	100
R16		
0	Ohm-m	100
R8		
0	Ohm-m	100
Current		
0	mA	150

Schlumberger

HGCD Monitoring Well No. 20

Schlumberger Pulsar Tool

Multifunction spectroscopy service

COMPANY: HEADWATERS GROUNDWATER CONSERVATION WELL: MW #20 FIELD: MW COUNTY: Kerr STATE: Texas COUNTRY: Texas	
Location API No: Field: MW Coordinates: LAT:30.089366, LON:99.032454 Other Services:	

Date	27-Sep-2022	Type of fluid in hole	Fresh Water
Run no.	6	Dens. Visc.	8.30 Fresh Water
Depth Driller	808	pH Fluid Loss	-999.25 -999.25
Depth Logger (Schl)	808	Source of Sample	Active Tank
Bottom Log Interval	-999.25	Rim @ Meas. Temp.	0.20 ohm.m @ 68
Top Log Interval	-999.25	Rimf @ Meas. Temp.	0.15 ohm.m @ 68
Casing Size	8.63	Rimc @ Meas. Temp.	-999.25 ohm.m @ 68
Casing Logger	798	Rim @ BHT	0.07 ohm.m @ -999.25
Bit Size	9.88	Recorded by	
Maximum recorded temperature	-999.25	Witnessed by	
Circulation Stopped		Logger on bottom	20:13:36

FOLD HERE: The well name, location and borehole reference data were furnished by the customer.

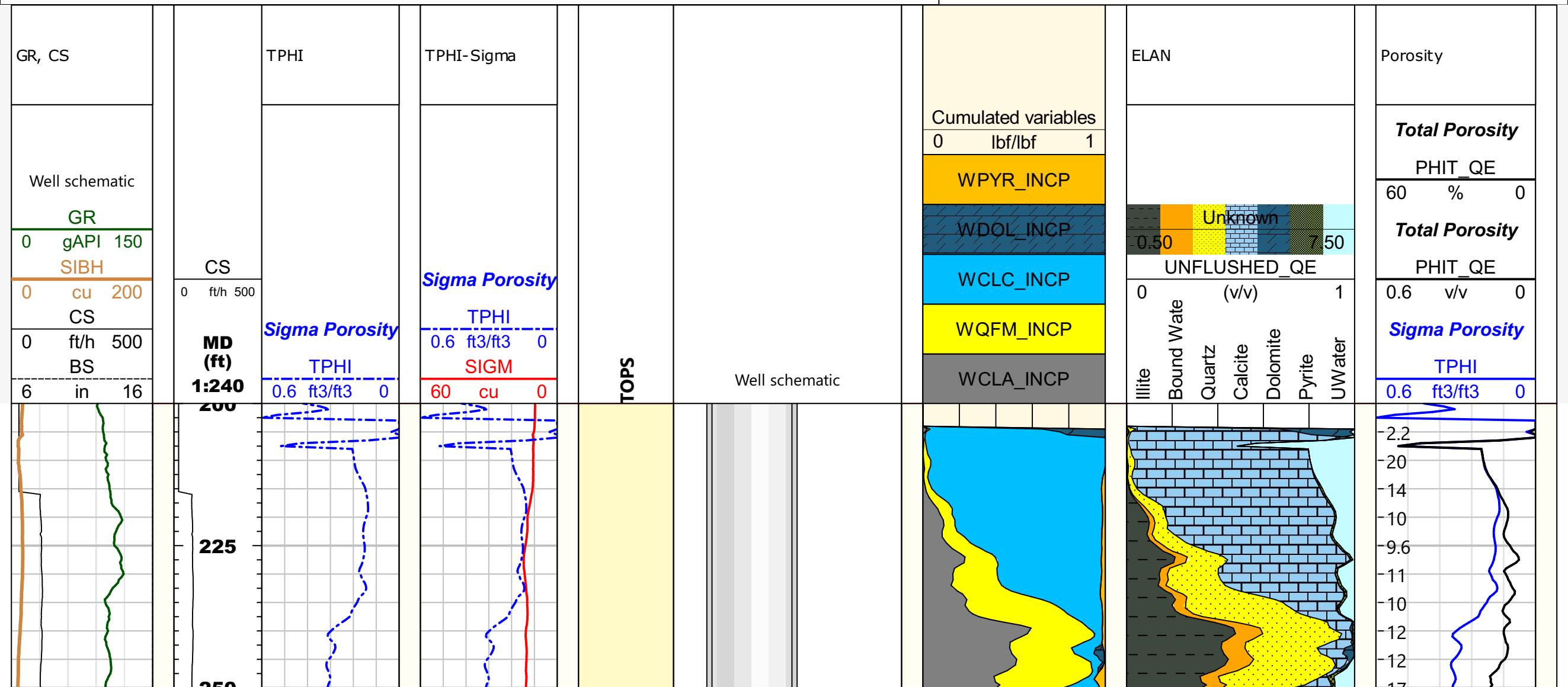
Any interpretation, research, analysis, data, results, estimates, or recommendation furnished with the services or otherwise communicated by Schlumberger to the customer at any time in connection with the services are opinions based on inferences from measurements, empirical relationships, and/or assumptions; which, inferences, empirical relationships and/or assumptions are not infallible and with respect to which professionals in the industry may differ. Accordingly, Schlumberger cannot and does not warrant the accuracy, correctness, or completeness of any such interpretation, research, analysis, data, results, estimates, or recommendation. The customer acknowledges that it is accepting the services "as is," that Schlumberger makes no representation or warranty, express or implied, of any kind or description in respect thereto, and that such services are delivered with the explicit understanding and agreement that any action taken based on the services received shall be at its own risk and responsibility, and no claim shall be made against Schlumberger as a consequence thereof.

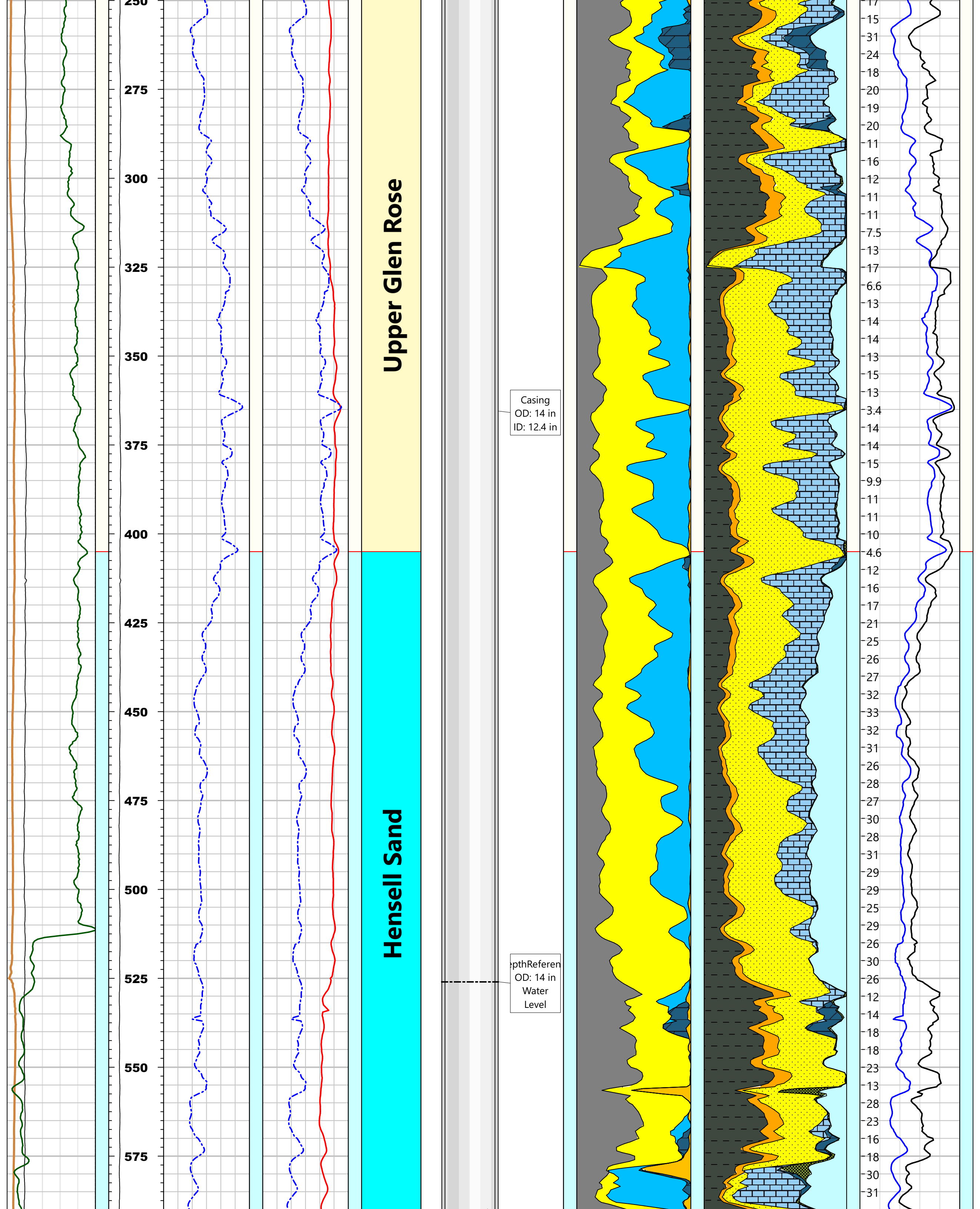
Svc. Order #: a..	OP Vers: 2020	Processed by: e-mail:vflores6@slb.com	Process Date: 10/11/2022
Location: Midland	Techlog Vers: 2020		

Remarks:

Porosity Derived from Pulsar Neutron porosity data (TPHI)
Lithology derived from Pulsar Spectrolith.

The Pulsar Multifunction Spectroscopy Service is the newest generation pulsed-neutron logging technology, providing stand-alone cased hole formation evaluation and reservoir saturation monitoring in a single tool. It includes significant improvement on classical cased hole outputs of neutron porosity and formation sigma, now with robust automatic self-compensation for a wide range of environmental conditions and completion types, all with minimal user input. It also measures advanced full high and low energy gamma ray spectra to compute both elemental dry weights (primarily Si, Ca, Mg, Al, Fe, Si, H, S) and a continuous mineralogy log (typically clay, quartz, calcite, dolomite, pyrite, anhydrite), allowing for dynamic lithology corrections on total porosity.



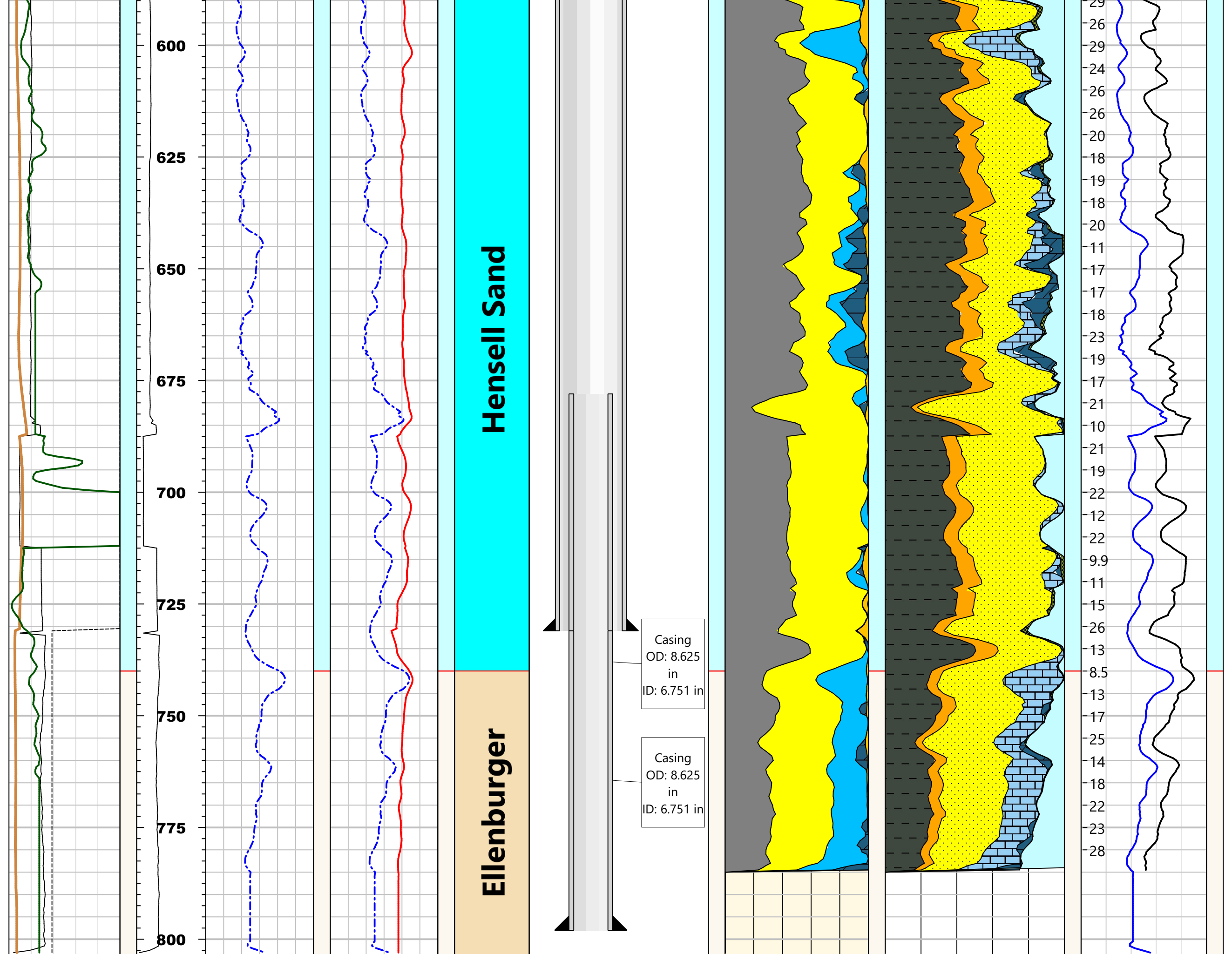


Upper Glen Rose

Hensell Sand

Casing
OD: 14 in
ID: 12.4 in

DepthReferen
OD: 14 in
Water
Level



GR, CS	TPHI	TPHI-Sigma				ELAN	Porosity
Well schematic GR 0 gAPI 150 SIBH 0 cu 200 CS 0 ft/h 500 BS 6 in 16	CS 0 ft/h 500 MD (ft) 1:240 <i>Sigma Porosity</i> TPHI 0.6 ft ³ /ft ³ 0	<i>Sigma Porosity</i> TPHI 0.6 ft ³ /ft ³ 0 <i>Sigma Porosity</i> SIGM 60 cu 0	TOPS	Well schematic	Cumulated variables 0 lbf/lbf 1 WPYR_INCP WDOL_INCP WCLC_INCP WQFM_INCP WCLA_INCP	UNFLUSHED_QE 0 (v/v) 1 Ilite Bound Wate Quartz Calcite Dolomite Pyrite UWater	Total Porosity PHIT_QE 60 % 0 Total Porosity PHIT_QE 0.6 v/v 0 <i>Sigma Porosity</i> TPHI 0.6 ft ³ /ft ³ 0

COMPANY: HEADWATERS GROUNDWATER CONSERVATION
 WELL: MW #20
 FIELD: MW
 COUNTY: Kerr
 STATE: Lithoscanner
 COUNTRY: United States



API No.:

Date Processed: 10/11/2022

Appendix C

Aquifer Test Data



HGCD Monitoring Well No. 20

Headwaters GCD Well No. 20 - Aquifer Test (October 24, 2022)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 20 Temperature (F)	PW Well No. 20 Water Level (ft. bgl)	PW Well No. 20 Water Level (ft. MSL)	PW Well No. 20 Drawdown (ft.)	PW Well No. 20 Pump Rate (gpm)	PW Well No. 20 Specific Capacity (gpm/ft.)	Comments
10/24/22 10:44 AM	0		74	525.02	1,553.98	0.00			Pump Start
10/24/22 10:45 AM	1		74	602.96	1,476.04	77.95	183	2.35	Meter: 171,249.6
10/24/22 10:46 AM	2		74	638.74	1,440.26	113.73	200	1.76	
10/24/22 10:47 AM	3		74	624.25	1,454.75	99.24	203	2.05	
10/24/22 10:48 AM	4		74	606.19	1,472.81	81.18	193	2.38	
10/24/22 10:49 AM	5		75	604.88	1,474.13	79.86	228	2.86	
10/24/22 10:50 AM	6		75	605.41	1,473.59	80.40	218	2.71	
10/24/22 10:51 AM	7		75	605.35	1,473.65	80.34	204	2.54	
10/24/22 10:52 AM	8		76	605.94	1,473.06	80.92	188	2.32	
10/24/22 10:53 AM	9		76	606.65	1,472.35	81.63	221	2.71	
10/24/22 10:54 AM	10		76	606.85	1,472.15	81.83			
10/24/22 10:55 AM	11		76	606.56	1,472.44	81.55			
10/24/22 10:56 AM	12		76	605.91	1,473.09	80.90	219	2.71	
10/24/22 10:57 AM	13		76	605.41	1,473.59	80.39	185	2.30	
10/24/22 10:58 AM	14		76	604.47	1,474.53	79.45	192	2.42	
10/24/22 10:59 AM	15		76	590.06	1,488.94	65.05	203	3.12	pH: 6.44; EC: 1.90
10/24/22 11:04 AM	20		76	606.08	1,472.92	81.07	222	2.74	pH: 6.25; EC: 1.95
10/24/22 11:09 AM	25		77	602.89	1,476.11	77.88	190	2.44	pH: 6.27; EC: 1.96
10/24/22 11:14 AM	30		77	604.71	1,474.29	79.69	169	2.12	pH: 6.22; EC: 1.97
10/24/22 11:29 AM	45		77	604.87	1,474.13	79.86	179	2.24	pH: 6.17; EC: 2.01
10/24/22 11:44 AM	60		77	605.22	1,473.78	80.20	175	2.18	pH: 6.13; EC: 2.04
10/24/22 11:59 AM	75		77	606.07	1,472.93	81.05	186	2.29	pH: 6.04; EC: 2.11
10/24/22 12:14 PM	90		78	606.77	1,472.23	81.75	173	2.12	pH: 6.02; EC: 2.16
10/24/22 12:28 PM	105		78	606.69	1,472.31	81.67	174	2.13	pH: 5.95; EC: 2.19
10/24/22 12:43 PM	120		78	606.84	1,472.16	81.82	172	2.10	pH: 5.92; EC: 2.23
10/24/22 1:13 PM	150		78	607.72	1,471.28	82.70	165	2.00	pH: 5.94; EC: 2.30
10/24/22 1:43 PM	180		78	607.60	1,471.41	82.58	165	2.00	pH: 5.79; EC: 2.37
10/24/22 2:13 PM	210		78	607.88	1,471.12	82.86			
10/24/22 2:43 PM	240		78	608.31	1,470.69	83.30			
10/24/22 3:43 PM	300		78	608.14	1,470.86	83.12			
10/24/22 4:43 PM	360		78	609.30	1,469.70	84.28			
10/24/22 5:43 PM	420		78	609.14	1,469.86	84.12			
10/24/22 6:43 PM	480		78	610.18	1,468.82	85.16			
10/24/22 7:43 PM	540		78	611.26	1,467.74	86.25			
10/24/22 8:43 PM	600		78	614.52	1,464.48	89.50			

Notes: bgl = below ground level; column pipe diameter = 8 inches; pump setting = 640 ft.; motor: 230 HP; MSL = Mean Sea Level; EC = electrical conductivity (mS/cm)

Headwaters GCD Well No. 20 - Aquifer Test (October 24, 2022)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 20 Temperature (F)	PW Well No. 20 Water Level (ft. bgl)	PW Well No. 20 Water Level (ft. MSL)	PW Well No. 20 Drawdown (ft.)	PW Well No. 20 Pump Rate (gpm)	PW Well No. 20 Specific Capacity (gpm/ft.)	Comments
10/24/22 9:43 PM	660		78	614.38	1,464.62	89.36			
10/24/22 10:43 PM	720		78	615.05	1,463.95	90.03			
10/24/22 11:43 PM	780		78	615.24	1,463.76	90.23			
10/25/22 12:43 AM	840		78	615.52	1,463.48	90.50			
10/25/22 1:43 AM	900		78	615.79	1,463.21	90.78			
10/25/22 2:43 AM	960		78	616.40	1,462.60	91.38			
10/25/22 3:43 AM	1,020		78	616.37	1,462.63	91.35			
10/25/22 4:43 AM	1,080		78	615.91	1,463.09	90.90			
10/25/22 5:43 AM	1,140		78	616.09	1,462.91	91.07			
10/25/22 6:43 AM	1,200		78	617.02	1,461.98	92.01			
10/25/22 7:43 AM	1,260		78	617.55	1,461.45	92.54			
10/25/22 8:43 AM	1,320		78	617.06	1,461.94	92.04			
10/25/22 9:43 AM	1,380		78	615.86	1,463.14	90.85			
10/25/22 10:43 AM	1,440		78	615.49	1,463.51	90.47			
10/25/22 10:44 AM	1,441		78	615.36	1,463.64	90.34			
10/25/22 10:45 AM	1,442	0	78	615.29	1,463.71	90.28	150	1.66	Pump Stop
10/25/22 10:46 AM	1,443	1	78	589.42	1,489.58	64.40			Meter: 389,822.1
10/25/22 10:47 AM	1,444	2	79	492.14	1,586.86	-32.88			Avg. Pump Rate: 152
10/25/22 10:48 AM	1,445	3	79	487.44	1,591.56	-37.58			
10/25/22 10:49 AM	1,446	4	79	521.25	1,557.75	-3.77			
10/25/22 10:50 AM	1,447	5	79	540.26	1,538.74	15.24			
10/25/22 10:51 AM	1,448	6	79	550.69	1,528.32	25.67			
10/25/22 10:52 AM	1,449	7	79	556.60	1,522.40	31.59			
10/25/22 10:53 AM	1,450	8	79	560.28	1,518.72	35.26			
10/25/22 10:54 AM	1,451	9	79	562.50	1,516.50	37.48			
10/25/22 10:55 AM	1,452	10	79	564.03	1,514.97	39.01			
10/25/22 10:56 AM	1,453	11	79	565.02	1,513.98	40.01			
10/25/22 10:57 AM	1,454	12	79	565.66	1,513.34	40.64			
10/25/22 10:58 AM	1,455	13	79	566.13	1,512.87	41.11			
10/25/22 10:59 AM	1,456	14	79	566.33	1,512.67	41.31			
10/25/22 11:00 AM	1,457	15	79	566.45	1,512.55	41.43			
10/25/22 11:05 AM	1,462	20	78	566.31	1,512.69	41.30			
10/25/22 11:10 AM	1,467	25	78	565.62	1,513.38	40.60			
10/25/22 11:15 AM	1,472	30	78	564.77	1,514.24	39.75			
10/25/22 11:30 AM	1,487	45	78	562.14	1,516.86	37.12			

Notes: bgl = below ground level; column pipe diameter = 8 inches; pump setting = 640 ft.; motor: 230 HP; MSL = Mean Sea Level; EC = electrical conductivity (mS/cm)

Headwaters GCD Well No. 20 - Aquifer Test (October 24, 2022)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 20 Temperature (F)	PW Well No. 20 Water Level (ft. bgl)	PW Well No. 20 Water Level (ft. MSL)	PW Well No. 20 Drawdown (ft.)	PW Well No. 20 Pump Rate (gpm)	PW Well No. 20 Specific Capacity (gpm/ft.)	Comments
10/25/22 11:45 AM	1,502	60	78	560.15	1,518.85	35.13			
10/25/22 12:00 PM	1,517	75	78	558.55	1,520.45	33.54			
10/25/22 12:15 PM	1,532	90	78	557.08	1,521.93	32.06			
10/25/22 12:30 PM	1,547	105	78	555.76	1,523.24	30.74			
10/25/22 12:45 PM	1,562	120	78	554.69	1,524.31	29.67			
10/25/22 1:15 PM	1,592	150	78	552.85	1,526.15	27.83			
10/25/22 1:45 PM	1,622	180	78	551.24	1,527.76	26.23			
10/25/22 2:15 PM	1,652	210	77	549.77	1,529.23	24.75			
10/25/22 2:45 PM	1,682	240	77	548.48	1,530.52	23.46			
10/25/22 3:45 PM	1,742	300	77	546.31	1,532.69	21.30			
10/25/22 4:45 PM	1,802	360	77	544.54	1,534.46	19.53			
10/25/22 5:45 PM	1,862	420	77	543.06	1,535.94	18.05			
10/25/22 6:45 PM	1,922	480	77	541.70	1,537.30	16.68			
10/25/22 7:45 PM	1,982	540	76	540.72	1,538.28	15.70			
10/25/22 8:45 PM	2,042	600	76	539.71	1,539.29	14.69			
10/25/22 9:45 PM	2,102	660	76	538.81	1,540.19	13.80			
10/25/22 10:45 PM	2,162	720	76	538.18	1,540.83	13.16			
10/25/22 11:45 PM	2,222	780	76	537.55	1,541.45	12.53			
10/26/22 12:45 AM	2,282	840	76	536.86	1,542.14	11.85			
10/26/22 1:45 AM	2,342	900	76	536.26	1,542.74	11.25			
10/26/22 2:45 AM	2,402	960	76	535.73	1,543.27	10.72			
10/26/22 3:45 AM	2,462	1020	76	535.24	1,543.76	10.22			
10/26/22 4:45 AM	2,522	1080	75	534.68	1,544.32	9.66			
10/26/22 5:45 AM	2,582	1140	75	534.33	1,544.67	9.31			
10/26/22 6:45 AM	2,642	1200	75	533.85	1,545.15	8.84			
10/26/22 7:45 AM	2,702	1260	75	533.56	1,545.44	8.54			
10/26/22 8:45 AM	2,762	1320	75	533.20	1,545.80	8.18			
10/26/22 9:45 AM	2,822	1380	75	532.87	1,546.13	7.85			
10/26/22 10:45 AM	2,882	1,440	75	532.56	1,546.44	7.54			
10/26/22 11:45 AM	2,942	1,500	75	532.24	1,546.77	7.22			
10/26/22 12:45 PM	3,002	1,560	75	531.90	1,547.10	6.88			
10/26/22 1:45 PM	3,062	1,620	75	531.67	1,547.33	6.66			
10/26/22 2:45 PM	3,122	1,680	75	531.36	1,547.64	6.34			
10/26/22 3:45 PM	3,182	1,740	75	531.19	1,547.81	6.17			

Notes: bgl = below ground level; column pipe diameter = 8 inches; pump setting = 640 ft.; motor: 230 HP; MSL = Mean Sea Level; EC = electrical conductivity (mS/cm)

Headwaters GCD Well No. 20 - Aquifer Test (October 24, 2022)

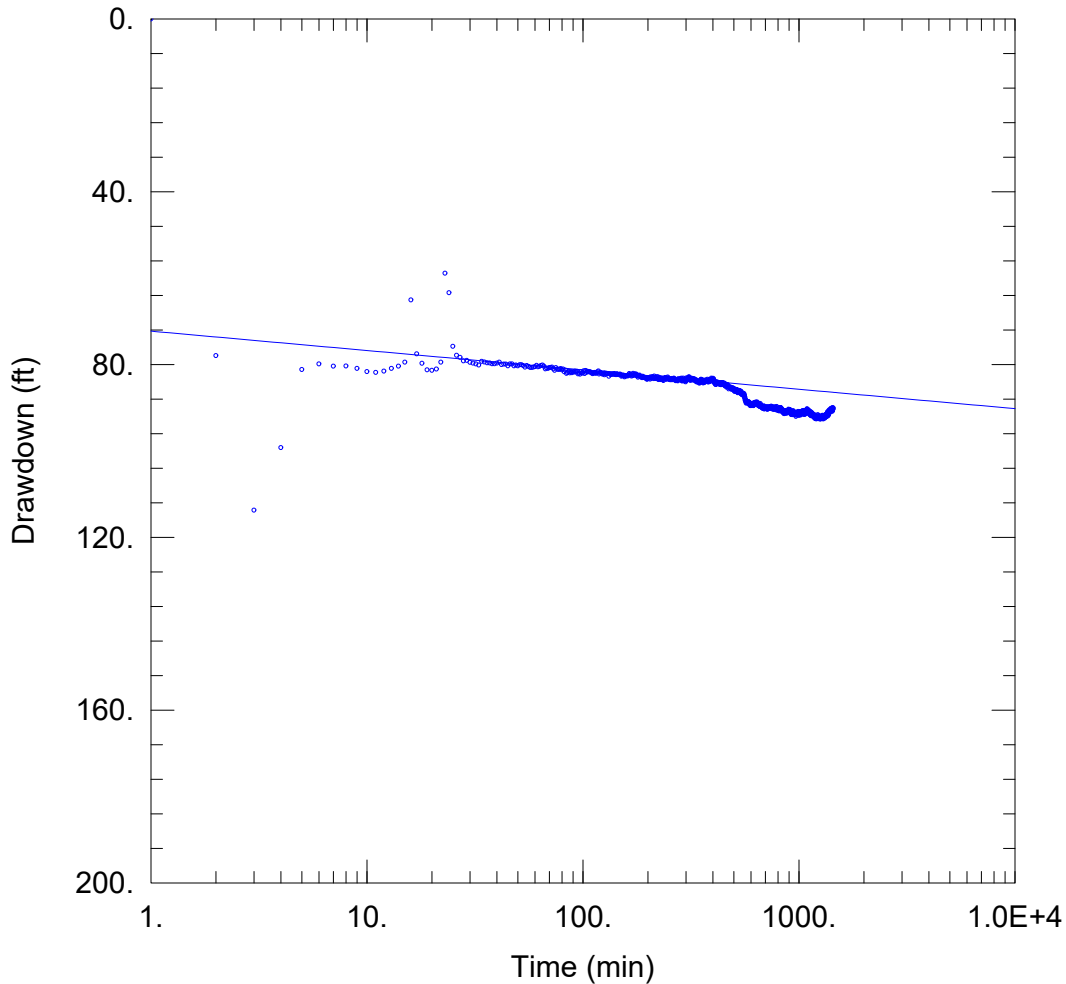
Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 20 Temperature (F)	PW Well No. 20 Water Level (ft. bgl)	PW Well No. 20 Water Level (ft. MSL)	PW Well No. 20 Drawdown (ft.)	PW Well No. 20 Pump Rate (gpm)	PW Well No. 20 Specific Capacity (gpm/ft.)	Comments
10/26/22 4:45 PM	3,242	1,800	75	530.88	1,548.12	5.87			
10/26/22 5:45 PM	3,302	1,860	75	530.71	1,548.29	5.69			
10/26/22 6:45 PM	3,362	1,920	75	530.44	1,548.56	5.43			
10/26/22 7:45 PM	3,422	1,980	75	530.24	1,548.76	5.23			
10/26/22 8:45 PM	3,482	2,040	75	530.14	1,548.87	5.12			
10/26/22 9:45 PM	3,542	2,100	75	530.07	1,548.94	5.05			
10/26/22 10:45 PM	3,602	2,160	75	529.78	1,549.22	4.76			
10/26/22 11:45 PM	3,662	2,220	75	529.73	1,549.27	4.71			
10/27/22 12:45 AM	3,722	2,280	75	529.52	1,549.48	4.50			
10/27/22 1:45 AM	3,782	2,340	75	529.36	1,549.64	4.34			
10/27/22 2:45 AM	3,842	2,400	75	529.26	1,549.74	4.25			
10/27/22 3:45 AM	3,902	2,460	75	529.14	1,549.86	4.12			
10/27/22 4:45 AM	3,962	2,520	75	528.98	1,550.02	3.97			
10/27/22 5:45 AM	4,022	2,580	75	528.81	1,550.19	3.80			
10/27/22 6:45 AM	4,082	2,640	75	528.73	1,550.27	3.71			
10/27/22 7:45 AM	4,142	2,700	75	528.58	1,550.43	3.56			
10/27/22 8:45 AM	4,202	2,760	75	528.44	1,550.56	3.42			
10/27/22 9:45 AM	4,262	2,820	75	528.36	1,550.64	3.34			
10/27/22 10:45 AM	4,322	2,880	74	528.23	1,550.77	3.22			
10/27/22 11:45 AM	4,382	2,940	74	528.19	1,550.81	3.17			
10/27/22 12:45 PM	4,442	3,000	75	528.02	1,550.98	3.00			
10/27/22 1:45 PM	4,502	3,060	74	527.91	1,551.09	2.89			
10/27/22 2:45 PM	4,562	3,120	74	527.87	1,551.13	2.86			
10/27/22 3:45 PM	4,622	3,180	74	527.74	1,551.26	2.72			
10/27/22 4:45 PM	4,682	3,240	74	527.69	1,551.31	2.67			
10/27/22 5:45 PM	4,742	3,300	74	527.62	1,551.38	2.61			
10/27/22 6:45 PM	4,802	3,360	74	527.50	1,551.50	2.48			
10/27/22 7:45 PM	4,862	3,420	74	527.53	1,551.47	2.51			
10/27/22 8:45 PM	4,922	3,480	74	527.43	1,551.57	2.41			
10/27/22 9:45 PM	4,982	3,540	74	527.34	1,551.66	2.32			

Notes: bgl = below ground level; column pipe diameter = 8 inches; pump setting = 640 ft.; motor: 230 HP; MSL = Mean Sea Level; EC = electrical conductivity (mS/cm)

Headwaters GCD Well No. 20 - Aquifer Test (October 24, 2022)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 20 Temperature (F)	PW Well No. 20 Water Level (ft. bgl)	PW Well No. 20 Water Level (ft. MSL)	PW Well No. 20 Drawdown (ft.)	PW Well No. 20 Pump Rate (gpm)	PW Well No. 20 Specific Capacity (gpm/ft.)	Comments
10/27/22 10:45 PM	5,042	3,600	74	527.38	1,551.62	2.37			
10/27/22 11:45 PM	5,102	3,660	74	527.27	1,551.73	2.25			
10/28/22 12:45 AM	5,162	3,720	74	527.26	1,551.74	2.24			
10/28/22 1:45 AM	5,222	3,780	74	527.18	1,551.82	2.16			
10/28/22 2:45 AM	5,282	3,840	74	527.15	1,551.85	2.14			
10/28/22 3:45 AM	5,342	3,900	74	527.15	1,551.85	2.13			
10/28/22 4:45 AM	5,402	3,960	74	526.89	1,552.11	1.87			
10/28/22 5:45 AM	5,462	4,020	74	526.90	1,552.11	1.88			
10/28/22 6:45 AM	5,522	4,080	74	526.90	1,552.10	1.88			
10/28/22 7:45 AM	5,582	4,140	74	526.85	1,552.15	1.83			
10/28/22 8:45 AM	5,642	4,200	74	526.69	1,552.31	1.68			
10/28/22 9:45 AM	5,702	4,260	74	526.78	1,552.22	1.76			
10/28/22 10:45 AM	5,762	4,320	74	526.74	1,552.26	1.72			

Notes: bgl = below ground level; column pipe diameter = 8 inches; pump setting = 640 ft.; motor: 230 HP; MSL = Mean Sea Level; EC = electrical conductivity (mS/cm)



WELL TEST ANALYSIS

Data Set: \...\Well No. 20 CJ.aqt
 Date: 11/16/22

Time: 13:58:24

PROJECT INFORMATION

Company: Wet Rock Groundwater LLC
 Client: HGCD
 Project: 072-001-22
 Location: Kerr County
 Test Well: Well No. 20
 Test Date: 10/24/2022

AQUIFER DATA

Saturated Thickness: 283. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Well

Well Name	X (ft)	Y (ft)
Well No. 20	0	0

SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

T = 1195.8 ft²/day

K = 4.23 ft/day

Appendix D

Water Quality Report




HGCD Monitoring Well No. 20

POLLUTION CONTROL SERVICES



Report of Sample Analysis

Client Information	Sample Information	Laboratory Information
Frank Morgan Peerless Equipment, Ltd. 313 US Hwy 90 E Hondo, TX 78861	Project Name: Headwater Well #20 Sample ID: Well Head Matrix: Drinking Water Date/Time Taken: 10/25/2022 1045	PCS Sample #: 697084 Page 1 of 3 Date/Time Received: 10/25/2022 12:24 Report Date: 11/01/2022 Approved by:  Chuck Wallgren, President

Test Description	Flag	Result	Units	RL	Analysis Date/Time	Method	Analyst
pH	I, I	5.8	S.U.	N/A	10/26/2022 17:06	SM 4500-H+ B	EMV
Chloride_IC		1,010	mg/L	20	10/26/2022 10:52	EPA 300.0	JAS
Conductivity, Specific		4,145	µmhos/cm at 25° C	1	10/31/2022 16:35	SM 2510B	PML
Nitrate-N_IC		<2	mg/L	2	10/26/2022 10:52	EPA 300.0	JAS
Nitrite-N_IC		<2	mg/L	2	10/26/2022 10:52	EPA 300.0	JAS
Sulfate_IC		92	mg/L	20	10/26/2022 10:52	EPA 300.0	JAS
Total Dissolved Solids		3,756	mg/L	10	10/26/2022 14:05	SM 2540C	PML
Fluoride_IC		2.30	mg/L	2.00	10/26/2022 10:52	EPA 300.0	JAS

Test Description	Precision	Quality Assurance Summary				MSD	UCL	LCS	LCS Limit	Blank
		Limit	LCL	MS	MSD					
pH	N/A	N/A	N/A	N/A		N/A				
Chloride_IC	<1	10	95	98	98	102	95	85 - 115		
Conductivity, Specific	N/A	N/A	N/A			N/A				
Nitrate-N_IC	2	20	70	97	99	130	97	85 - 115		
Nitrite-N_IC	1	10	86	90	90	106	92	85 - 115		
Sulfate_IC	2	10	94	94	96	101	95	85 - 115		
Total Dissolved Solids	2	10	N/A	N/A	N/A	N/A				
Fluoride_IC	1	10	87	93	94	105	95	85 - 115		

Quality Statement: All supporting quality data adhered to data quality objectives and test results meet the requirements of NELAP unless otherwise noted as flagged exceptions or in a case narrative attachment. Reports with full quality data deliverables are available on request.

¹ Not NELAP Certifiable Parameter
² Informational purposes only - pH outside hold time

These analytical results relate only to the sample tested.
 All data is reported on an 'As is' basis unless designated as 'Dry Wt'.
 RL = Reporting Limits

POLLUTION CONTROL SERVICES



Report of Sample Analysis

Client Information	Sample Information	Laboratory Information
Frank Morgan Peerless Equipment, Ltd. 313 US Hwy 90 E Hondo, TX 78861	Project Name: Headwater Well #20 Sample ID: Well Head Matrix: Drinking Water Date/Time Taken: 10/25/2022 1045	PCS Sample #: 697084 Page 2 of 3 Date/Time Received: 10/25/2022 12:24 Report Date: 11/01/2022

Test Description	Flag	Result	Units	RL	Analysis Date/Time	Method	Analyst
Alkalinity, Total	!	126	mg/L	10	10/28/2022 10:00	SM 2320 B	CRM
Arsenic/ICP MS		0.0020	mg/L	0.0005	10/28/2022 13:31	EPA 200.8	DJL
Copper/ICP (Total)		0.040	mg/L	0.005	10/31/2022 11:23	EPA 200.7 / 6010 B	DJL
Calcium Hardness as CaCO3		1,031.3	mg/L	N/A	10/28/2022 12:56	SM 2340B (Calc)	DJL
Calcium/ICP (Total)		413	mg/L	1.00	10/28/2022 12:56	EPA 200.7 / 6010 B	DJL
Lead/ICP MS		0.0013	mg/L	0.0005	10/28/2022 13:31	EPA 200.8	DJL
Aluminum/ICP (Total)		1.70	mg/L	0.010	10/31/2022 11:23	EPA 200.7 / 6010 B	DJL
Iron/ICP (Total)		12.0	mg/L	0.010	10/31/2022 11:23	EPA 200.7 / 6010 B	DJL

Test Description	Precision	Quality Assurance Summary						LCS	LCS Limit	Blank
		Limit	LCL	MS	MSD	UCL				
Alkalinity, Total	<1	10	95	99	99	107	100	85 - 115		
Arsenic/ICP MS	3	20	70	97	100	130	106	85 - 115		
Copper/ICP (Total)	2	20	75	96	98	125	100	85 - 115		
Calcium Hardness as CaCO3	N/A	N/A	N/A			N/A				
Calcium/ICP (Total)	2	20	75	*N/C	*N/C	125	101	85 - 115		
Lead/ICP MS	4	20	70	104	108	130	115	85 - 115		
Aluminum/ICP (Total)	9	20	75	99	108	125	105	85 - 115		
Iron/ICP (Total)	3	20	75	93	96	125	100	85 - 115		

Quality Statement: All supporting quality data adhered to data quality objectives and test results meet the requirements of NELAP unless otherwise noted as flagged exceptions or in a case narrative attachment. Reports with full quality data deliverables are available on request.

*Approved for release per QA Plan, Exception to Limits - QAM Section 13-4
 † Not NELAP Certifiable Parameter

These analytical results relate only to the sample tested.
 All data is reported on an 'As Is' basis unless designated as 'Dry Wt'.
 RL = Reporting Limits
 *N/C = Not Calculated, Sample Concentration Greater than 5 times the Spike Level

POLLUTION CONTROL SERVICES



Report of Sample Analysis

Client Information	Sample Information	Laboratory Information
Frank Morgan Peerless Equipment, Ltd. 313 US Hwy 90 E Hondo, TX 78861	Project Name: Headwater Well #20 Sample ID: Well Head Matrix: Drinking Water Date/Time Taken: 10/25/2022 1045	PCS Sample #: 697084 Page 3 of 3 Date/Time Received: 10/25/2022 12:24 Report Date: 11/01/2022

Test Description	Result	Units	RL	Analysis Date/Time	Method	Analyst
Sodium/ICP (Total)	75.0	mg/L	1.00	10/28/2022 12:56	EPA 200.7 / 6010 B	DJL
Manganese/ICP (Total)	0.450	mg/L	0.010	10/31/2022 11:23	EPA 200.7 / 6010 B	DJL
Zinc/ICP (Total)	0.050	mg/L	0.010	10/31/2022 11:23	EPA 200.7 / 6010 B	DJL

Test Description	Precision	Quality Assurance Summary							
		Limit	LCL	MS	MSD	UCL	LCS	LCS Limit	Blank
Sodium/ICP (Total)	2	20	75	101	99	125	101	85 - 115	
Manganese/ICP (Total)	3	20	75	94	97	125	105	85 - 115	
Zinc/ICP (Total)	1	20	75	95	96	125	105	85 - 115	

Quality Statement: All supporting quality data adhered to data quality objectives and test results meet the requirements of NELAC unless otherwise noted as flagged exceptions or in a case narrative attachment. Reports with full quality data deliverables are available on request.

These analytical results relate only to the sample tested.
 All data is reported on an 'As Is' basis unless designated as 'Dry Wt'.
 RL = Reporting Limits

POLLUTION CONTROL SERVICES

Chain of Custody Number

697084

MULTIPLE SAMPLE ANALYSIS REQUEST AND CHAIN OF CUSTODY FORM

Stamp 1st sample and COC as same number

CUSTOMER INFORMATION				REPORT INFORMATION												
Name: <u>Peerless Equipment</u>				Attention:		Phone:		Fax:								
SAMPLE INFORMATION				Requested Analysis												
Project Information: <u>Headwater Well #20</u>				Collected By:				Instructions/Comments:								
Report "Soils" <input type="checkbox"/> As Is <input type="checkbox"/> Dry Wt																
Client / Field Sample ID	Collected		Field Chlorine Residual mg/L	Composite or Grab	Matrix		Container		Preservative	Number	Type					
	Date	Time			DW-Drinking Water, NPW-Non-potable water, WW-Wastewater, LW-Liquid Waste	Type	Number	Preservative								
<u>Well #20</u>	<u>Start: 10/25/22</u> <u>End:</u>	<u>Start: 10:45AM</u> <u>End:</u>	<input type="checkbox"/> C <input checked="" type="checkbox"/> G	<input checked="" type="checkbox"/> DW <input type="checkbox"/> NPW <input type="checkbox"/> WW <input type="checkbox"/> Soil <input type="checkbox"/> Sludge <input type="checkbox"/> LW <input type="checkbox"/> Other	<input checked="" type="checkbox"/> P <input type="checkbox"/> G <input type="checkbox"/> O	<input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₃ PO ₄ <input type="checkbox"/> NaOH <input type="checkbox"/> ICE <input type="checkbox"/>										<u>697084</u> <input type="checkbox"/> S <input type="checkbox"/> B <input type="checkbox"/> N <input type="checkbox"/> HEM Other:
	<u>Start:</u> <u>End:</u>	<u>Start:</u> <u>End:</u>	<input type="checkbox"/> C <input type="checkbox"/> G	<input type="checkbox"/> DW <input type="checkbox"/> NPW <input type="checkbox"/> WW <input type="checkbox"/> Soil <input type="checkbox"/> Sludge <input type="checkbox"/> LW <input type="checkbox"/> Other	<input type="checkbox"/> P <input type="checkbox"/> G <input type="checkbox"/> O	<input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₃ PO ₄ <input type="checkbox"/> NaOH <input type="checkbox"/> ICE <input type="checkbox"/>										<input type="checkbox"/> S <input type="checkbox"/> B <input type="checkbox"/> N <input type="checkbox"/> HEM Other:
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Required Turnaround: Routine (6-10 days) EXPEDITE: (See Surcharge Schedule) < 8 Hrs. < 16 Hrs. < 24 Hrs. 5 days Other: Rush Charges Authorized by:

Sample Archive/Disposal: Laboratory Standard Hold for client pick up Container Type: P = Plastic, G = Glass, O = Other Carrier ID:

Relinquished By: <u>Felipe R. G.</u>	Date: <u>10/25/22</u>	Time: <u>12m</u>	Received By: <u>[Signature]</u>	Date: <u>10/25/22</u>	Time: <u>12m</u>
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Pollution Control Services Sample Log-In Checklist

6 9 7 0 8 4

PCS Sample No(s) 6 9 7 0 8 4 COC No. _____

Client/Company Name: Peoples Checklist Completed by: [Signature]

Sample Delivery to Lab Via:

Client Drop Off _____ Commercial Carrier: Bus _____ UPS _____ Lone Star _____ FedEx _____ USPS _____
PCS Field Services: Collection/Pick Up _____ Other: _____

Sample Kit/Coolers

Sample Kit/Cooler? Yes No Sample Kit/Cooler: Intact? Yes No
Custody Seals on Sample Kit/Cooler: Not Present If Present, Intact Broken _____
Sample Containers Intact; Unbroken and Not Leaking? Yes No
Custody Seals on Sample Bottles: Not Present If Present, Intact Broken _____
COC Present with Shipment or Delivery or Completed at Drop Off? Yes No
Has COC sample date/time and other pertinent information been provided by client/sampler? Yes: No: _____
Has COC been properly Signed when Received/Relinquished? Yes No
Does COC agree with Sample Bottle Information, Bottle Types, Preservation, etc.? Yes No
All Samples Received before Hold Time Expiration? Yes No
Sufficient Sample Volumes for Analysis Requested? Yes No
Zero Headspace in VOA Vial? Yes _____ No _____

Sample Preservation:

* Cooling: Not Required _____ or Required Yes
If cooling required, record temperature of submitted samples Observed/Corrected 5 / 5 °C
Is Ice Present in Sample Kit/Cooler? Yes No _____ Samples received same day as collected? Yes No _____
Lab Thermometer Make and Serial Number: Vaughan 1807009583 Other: _____

Acid Preserved Sample - If present, is pH <2? Yes _____ No ** _____ H₂SO₄ _____ HNO₃ _____ H₃PO₄
Base Preserved Sample - If present, is pH >12? Yes _____ No _____ NaOH _____
Other Preservation: _____ If Present, Meets Requirements? Yes _____ No _____

Sample Preservations Checked by: _____ Date _____ Time _____
pH paper used to check sample preservation (PCS log #): _____ (HEM pH checked at analysis).

Samples Preserved/Adjusted by Lab:	Lab #	Parameters Preserved	Preservative Used	Log #
		<u>Metals</u>	<u>VNO₃</u>	<u>01703700</u>

Adjusted by Tech/Analyst: [Signature] Date: 10/25/20 Time: 1230

Client Notification/ Documentation for "No" Responses Above/ Discrepancies/ Revision Comments

Person Notified: _____ Contacted by: _____
Notified Date: _____ Time: _____
Method of Contact: At Drop Off: _____ Phone _____ Left Voice Mail _____ E-Mail _____ Fax _____
Unable to Contact _____ Authorized Laboratory to Proceed: _____ (Lab Director)
Regarding / Comments: _____

Actions taken to correct problems/discrepancies: _____

Receiving qualifier needed (requires client notification above) Temp. _____ Holding Time _____ Initials: _____
Receiving qualifier entered into LIMS at login Initial/Date: _____
Revision Comments: _____