

Report of Findings
Ranches at Big Mountain
Groundwater Availability Certification for Platting:
Blanco County, Texas
(Updated March 5, 2026)

For:
Ranches at Round Mountain, LLC
10399 FM 2325
Wimberley, TX 78676



Wet Rock Groundwater Services, L.L.C.
Groundwater Specialists

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REPORT OF FINDINGS

WRGS 23-012

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WRGS Project No. 223-001-23



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The seal appearing on this document was authorized by Kaveh Khorzad, P.G. 1126 on March 5, 2026:



A handwritten signature in black ink, appearing to read "Kaveh Khorzad".

Kaveh Khorzad, P.G.

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Section I: Introduction

This report details the results of a groundwater availability study for the proposed Ranches at Big Mountain Subdivision (Big Mountain) to meet the requirements of the Certification of Groundwater Availability for Platting Form (*Title 30, Texas Administrative Code, Chapter 230, Sections 230.2 through and including 230.11*). Appendix A provides the completed Certification of Groundwater Availability for Platting Form, along with Appendix B providing the Plat Attesting Form.

The Big Mountain property is located on Ranch to Market (RM) Road 3347 approximately 9 miles northwest of Round Mountain in northern Blanco County (Figure 1). The proposed subdivision is documented within the Blanco County Tax Assessor as Property IDs: 88238 and 6430. Ranches at Round Mountain, LLC (10399 FM 2325 Wimberley, TX 78676) is the plat applicant.

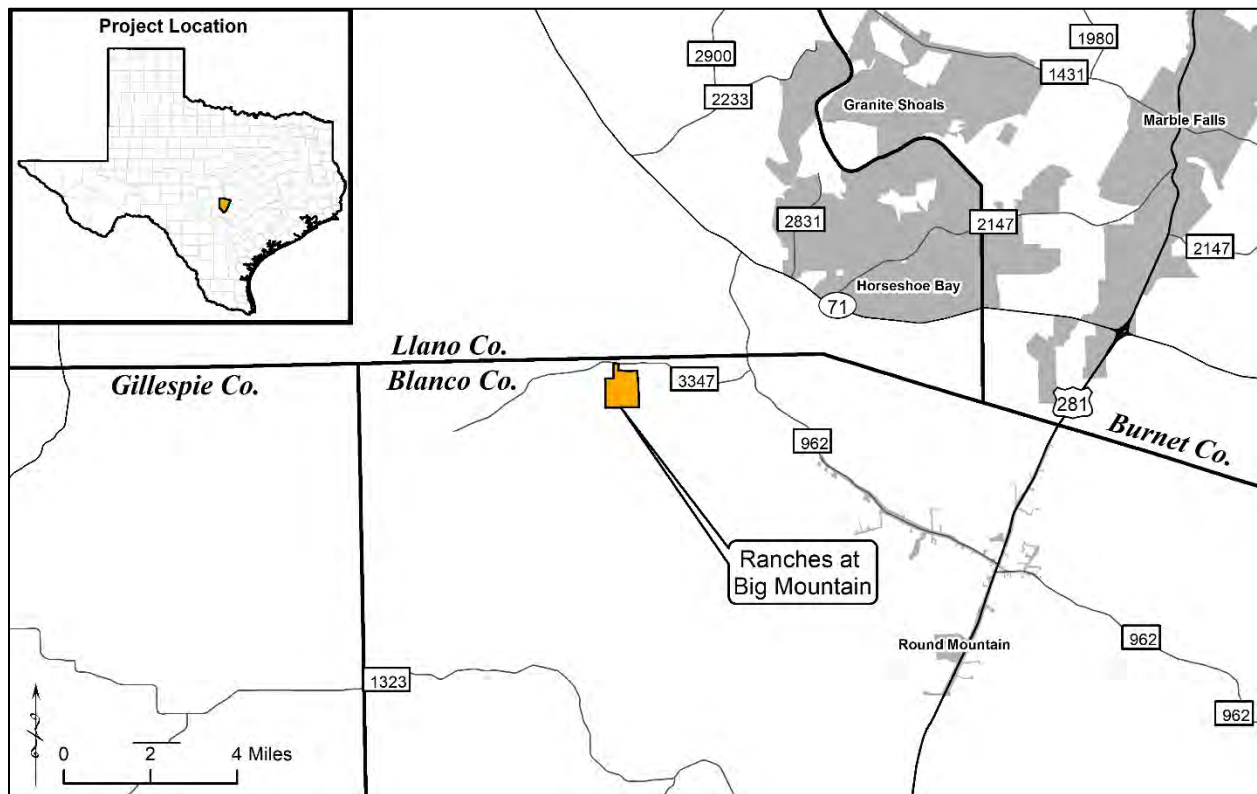


Figure 1: Location map

Ranches at Round Mountain, LLC proposes to develop the approximately 401.01 acre property as a subdivision including 27 single family residential lots. The average lot size is 14.85 acres; each lot will be served by an individual water well. The subdivision is located within the jurisdiction of the Blanco-Pedernales Groundwater Conservation District (BPGCD). Figure 2 provides a map showing the general location of the subdivision with the county and groundwater district boundaries.

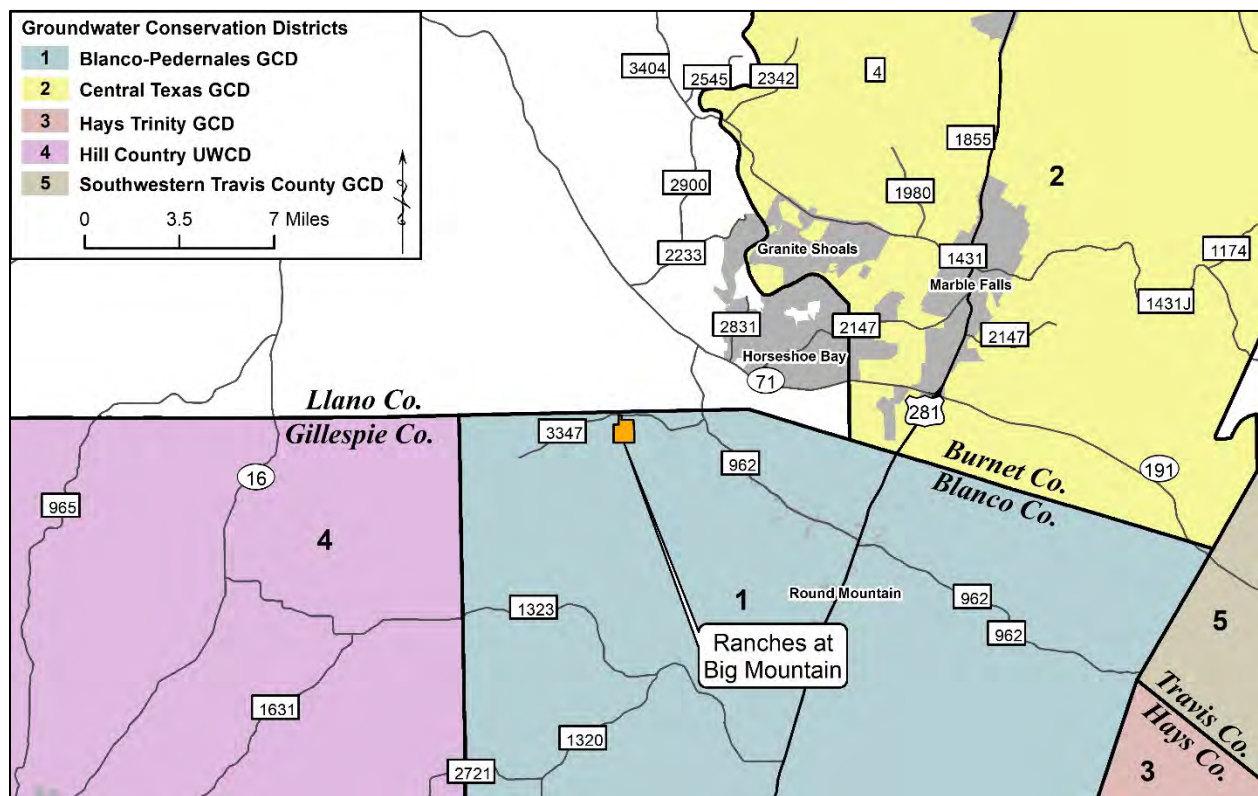


Figure 2: Groundwater Conservation District map

Section II: Projected Water Demand Estimate

The Blanco County development rules and regulations require applicants to use the following formula when calculating demand for a subdivision:

Equation 1: Total Water Demand

$$Q_s = n \times 3.5 \times 100 \times 365 \text{ days} = 3,449,250 \text{ gallons/year or } 10.59 \text{ acre-feet/year}$$

Where:

Q_s = Total Water Demand at full build out for the subdivision;

n = Number of lots (27 lots);

3.5 = Average number of persons per household; and

100 = The average per capita usage of water per day in gallons.

Equation 2: Water Demand per Housing Unit

$$Q_h = 3.5 \times 100 \times 365 \text{ days} = 127,750 \text{ gallons/year or } 0.39 \text{ acre-feet/year}$$

Where:

Q_h = Total Water Demand per house per year

Equation 1 assumes 3.5 persons per household using 100 gallons per person per day which results in a total water demand for the subdivision of 10.59 acre-feet/year. Equation 2 results in a water demand per housing unit of 0.39 acre-feet/year. There are no planned non-residential water demands.



Section III: General Groundwater Resource Information

III.1. Introduction

There are both minor and major aquifers that underlie Blanco County and are utilized as groundwater resources. The Texas Water Development Board (TWDB) defines a minor aquifer as an aquifer that supplies large quantities of water in small areas or relatively small quantities in large areas. A major aquifer is defined as an aquifer that produces large amounts of water over large areas. The Hickory, Ellenburger-San Saba, and Marble Falls Aquifers are minor aquifers composed of Paleozoic rock that extend laterally across a major geologic feature known as the Llano Uplift, which is centered across Llano and Mason Counties. The Mid-Cambrian Aquifer is not recognized as a named aquifer by the Texas Water Development Board, but has been noted in Texas Water Development Board reports as a water bearing unit with adequate yields for water supply. The Trinity Aquifer is part of a thick and regionally extensive aquifer system composed of Cretaceous carbonates that were deposited throughout central Texas and is classified as a major aquifer.

III.2. Stratigraphy and Geologic History

The RRM property is located in the southeastern portion of the Llano Uplift. The uplift is a structural high dome consisting of Precambrian rock, much of which are igneous granites and other metamorphics aging up to over 1.36 billion years (Reese et. al, 2000). Metamorphosis including compression and folding occurred approximately 1.2 billion years ago with multi-directional fracturing (Johnson, 2004). Figure 3 provides a geologic map and stratigraphic column illustrating the northeast trending faults in the area and the diverse geology surrounding the proposed Big Mountain property.

The complex Precambrian formations which make up the structural base in the study area are composed of a sequence of meta-sedimentary and meta-igneous rock, with scattered intrusive igneous rock. Major meta-sedimentary units include the Packsaddle Schist and the Valley Spring Gniess; meta-igneous units include the Coal Creek Serpentine, the Big Spring Gneiss, and the Red Mountain Gneiss. Igneous rocks include the Llanite Quartz Porphyry, the Sixmile Granite, the Oatman Creek Granite, and the Town Mountain Granite (Figure 3; Preston et. al, 1996). In general, these rocks crop out in the center of the uplift and act as confining units to overlying aquifers. Rocks overlying the Precambrian Base dip radially away from the dome structure with high variability in magnitude, ranging from a few feet (ft.) to over 100 ft. per mile (Barnes and Bell, 1977).

Stratigraphically above the Precambrian base lies the Cambrian aged Moore Hollow Group which consists of the Riley and Wilberns Formations. The oldest member of the Riley Formation is the Hickory Sandstone consisting of cross-bedded terrestrial and marine quartz sandstones, siltstones, and mudstones which make up the Hickory Aquifer. In certain areas the Cap Mountain limestone overlies the Hickory, acting as a confining unit. The youngest member of the Riley Formation, the Lion Mountain Sandstone, is intermittently found overlying the Cap Mountain Limestone. The Welge Sandstone, the oldest member of the Wilberns Group, is hydraulically connected to the Lion Mountain forming the Mid-Cambrian Aquifer. The Morgan Creek Limestone and the Point Peak Shale are found directly above the Welge Sandstone and act as a confining unit between the Mid-Cambrian and the Ellenburger-San Saba aquifers. Completing the Wilberns Group is the San Saba Limestone which is the stratigraphically lowest part of the Ellenburger-San Saba Aquifer (Figure 3; Barnes and Bell, 1977; Preston et. al, 1996).



Overlying the Moore Hollow Group is the Ordovician aged Ellenburger Group which consists of the Tanyard, Gorman, and Honeycut Formations and generally encircle the Llano Uplift. The Tanyard Formation is divided into two members: the basal dolostone Threadgill Member, and the overlying limestone Staendebach Member. Above the Tanyard, the Gorman and Honeycut Formations are comprised of dolostones and limestones which complete the Ellenburger Group and the Ellenburger-San Saba Aquifer (Figure 3; Preston et. al, 1996).

Scattered discontinuously throughout the study area, Devonian and Mississippian aged formations consist of thin remnants of dark shales, petroliferous limestones, crinoidal limestone, chert breccias, fractured cherts, and microgranular limestones with bedded chert (Standen and Ruggiero, 2007; Preston et. al, 1996). Where present, the formations act as confining layers between the Ellenburger-San Saba Aquifer and the Marble Falls Aquifer (Figure 3; Preston et. al, 1996).

Pennsylvanian aged rocks unconformably overlie either the Ellenburger Group or the Devonian-Mississippian Formations. Groups making up this system include the Bend, Canyon, and Strawn Groups. The oldest member of the Bend Group is the Marble Falls Limestone, which is locally divided and makes up the Marble Falls Aquifer. The lower unit consists of massive limestone and reef deposits and the upper unit consists of fine grained bedded limestone with chert nodules and beds. The overlying Smithwick Formation consists of interbedded claystone, siltstone, and sandstone. Above the Bend Group are the Strawn and Canyon Groups comprised of limestones, shales, and fine grained sandstones. Together with the Smithwick Formation, these groups act as confining units above the Marble Falls Aquifer (Figure 3; Preston et. al, 1996).

Cretaceous aged rocks overlie the Pennsylvanian system. The Cretaceous sediments comprising the Trinity and Edwards Groups were deposited by a shallow Cretaceous sea and once covered the entire region, but have since been eroded away completely in some areas. The Trinity Group is divided into three aquifers from oldest to youngest: the Lower, Middle and Upper Trinity Aquifers. Formations comprising the Lower Trinity Aquifer include, from oldest to youngest, the Hosston Sand Member and Sligo Limestone Member of the Travis Peak Formation. Updip in some parts of the outcrop, the equivalent rocks of the Hosston and Sligo are called the Sycamore sand. Above the Lower Trinity Aquifer is a confining unit separating the Lower Trinity Aquifer from the Middle Trinity Aquifer called the Hammett Shale. The Middle Trinity Aquifer is composed of from oldest to youngest, the Cow Creek Limestone, the Bexar Shale, and the Hensell Sand Members of the Travis Peak Formation and the Lower Glen Rose Formation. Above the Middle Trinity Aquifer is the Upper Trinity Aquifer composed of the Upper Glen Rose Formation, which completes the Trinity Group. Above the Trinity Group lies the Edwards Group, which consists of the Fort Terrett and Segovia Formations (collectively known as Edwards Limestone).

At the Big Mountain property, members of the Riley and Wilberns Formations are exposed at the surface, specifically the Morgan Creek Limestone and Welge Sandstone members (Wilberns Formation) and the Lion Mountain Sandstone, Cap Mountain Limestone, and Hickory Sandstone members (Riley Formation).



III.3. Hydrogeology

The Ouachita Orogeny during the late Paleozoic had a significant impact on the structure of the Llano Uplift, deforming the existing land surface and causing a series of faults to develop. This faulting caused some of the rock formations to become abutted against others, resulting in compartmentalized regional aquifers with varying connectivity (Bluntzer, 1992). Figure 4 provides an aquifer map of the area near the Big Mountain property.

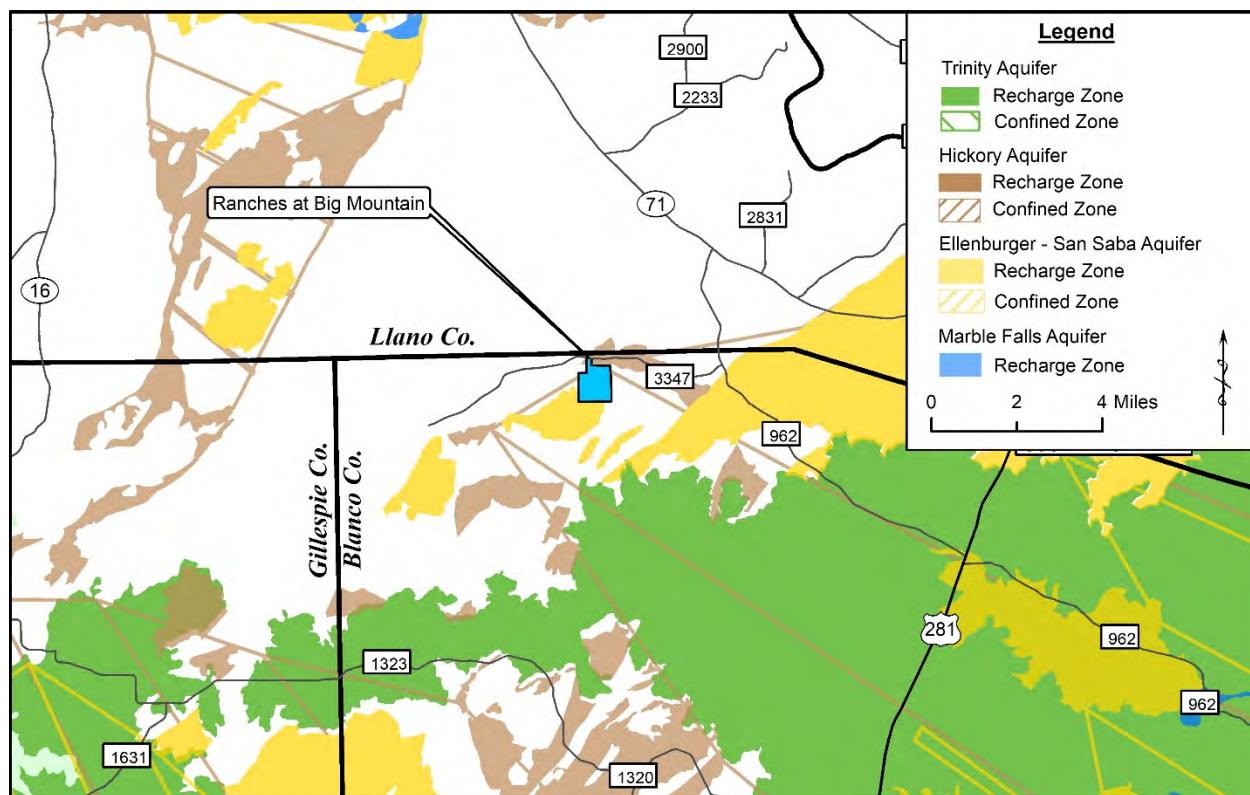


Figure 4: Aquifer map

Rocks of the Mid-Cambrian and Hickory aquifer underlie portions of the Big Mountain property (Hickory shown in brown – Figure 4; Mid-Cambrian not recognized by the TWDB as a named aquifer). The Cambrian aged aquifers dip radially from the center of the Llano uplift and can range in thickness from 0 up to 3,000 ft. Faults have caused portions of aquifers to become compartmentalized which restricts groundwater flow in some areas and increased production in other portions of the aquifer. Restricted flow or communication within an aquifer can result in wells that will produce varying amounts of water within a relatively small distance. The Cretaceous aged Trinity Aquifer dips away from the uplift at approximately 100 ft. per mile toward the Gulf of Mexico and thickens to the east/southeast.

The Hickory Aquifer made up of Lower Cambrian aged Hickory Sandstone extends radially from the Llano Uplift into Williamson and Travis Counties (shown in brown - Figure 4). The majority of the Big Mountain property overlies the Mid-Cambrian Aquifer and the confined portion of the Hickory Aquifer, with the northern portions of the property overlying the Hickory Aquifer recharge zone. The Hickory has the capability of yielding small to moderate volumes of fresh to slightly saline water at depths up to

approximately 3,000 ft. In general, radioactivity levels are detectable in some areas of the Hickory Aquifer due to uranium and thorium in Paleozoic shales and sandstones and from Precambrian igneous and metamorphic rocks (Preston et. al, 1996). At the Big Mountain property, the Hickory Aquifer is generally found at depths ranging from ground surface to 800 feet below the land surface.

The Mid-Cambrian Aquifer is composed of the Lion Mountain Sandstone Member of the Riley Formation and the Welge Sandstone Member of the Wilberns Formation (Figure 3). The Cap Mountain Limestone Member (Riley Formation) acts as a confining layer between the Hickory Sandstone and the overlying Mid-Cambrian aquifer. Although it is not recognized as a named aquifer by the Texas Water Development Board, this aquifer has been noted in Texas Water Development Board reports as a water bearing unit with average yields of approximately 20 gpm (Bluntzer, 1992).



Section IV: Aquifer Testing

IV.1. Well Details

There are a total of eight (8) wells located within the proposed subdivision that were used in this study. Well Nos. 1 through 8 are newly constructed wells by Apex Drilling, Inc. within the Hickory Aquifer. Figure 5 provides a map showing the well locations and the Big Mountain boundary with a 500-foot radius (no other wells present). There were also no subdivisions located within 2,500 ft. of the proposed subdivision. There is one existing well (Plugging Report: 147450) on the property that was plugged on May 20, 2014 by Apex Drilling, Inc.. Figures 6 through 9 provide well profiles displaying well construction and formation depths that were determined from the drill cuttings collected by Apex Drilling, Inc., state well reports and geophysical logs; Appendix D provides available state well reports. Table 1 provides a well construction summary for wells used in the testing.

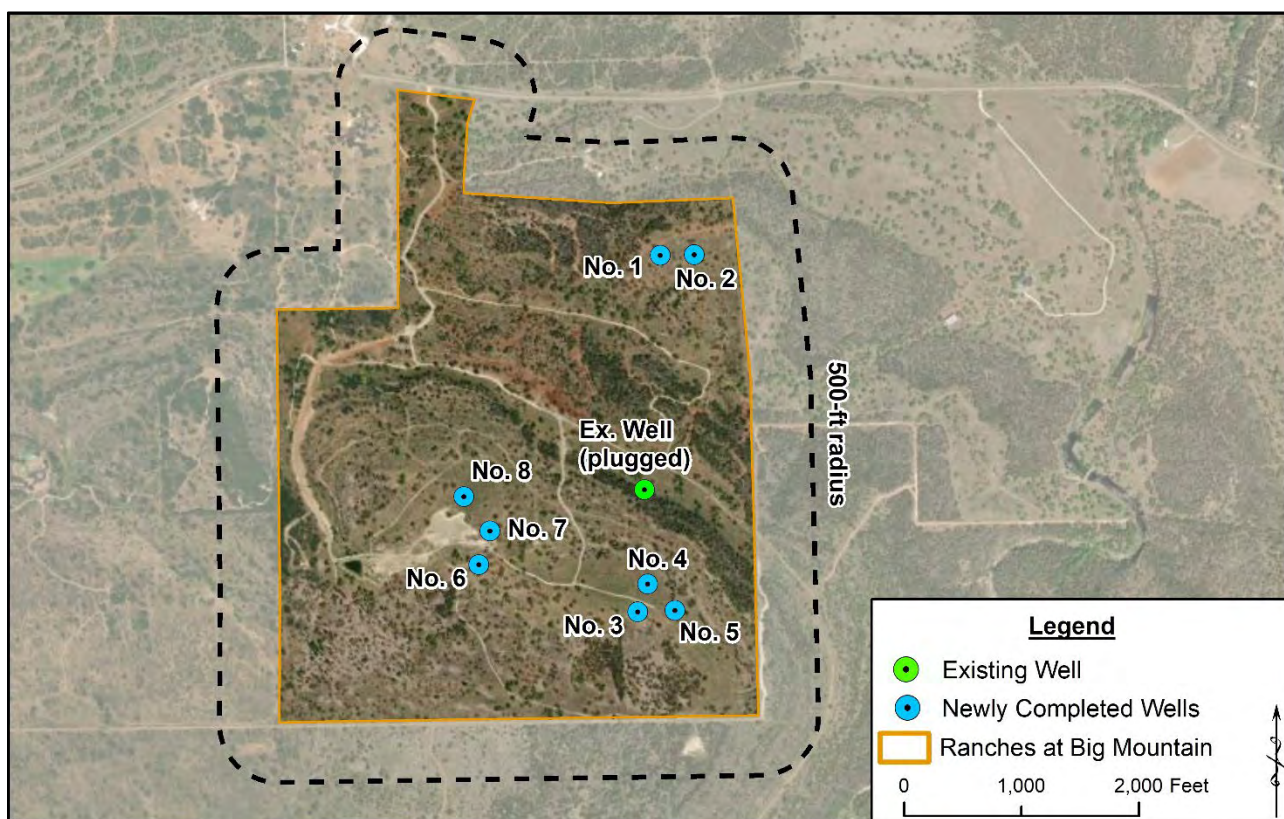


Figure 5: Well location map

To meet the guidelines for the Blanco County development rules and regulations and to adequately assess the availability of groundwater within the vicinity of the proposed subdivision, five (5) aquifer tests were conducted. The aquifer tests consisted of pumping one well for at least 24 hours followed by a recovery phase while measuring water levels in both the pumping and observation wells. This is in accordance with the testing procedures of the Texas Administrative Code (TAC) Title 30 Part 1 Chapter 230.8. Based on the state well reports, drillers' lithology logs, and geophysical logs conducted by GeoCam staff on Well Nos. 1, 5, and 7, all wells used in the aquifer testing are completed in the Hickory Aquifer. The following provides a summary of the well construction for the wells used in the aquifer tests.

Well No. 1

According to the State Well Report (Tracking No. 641879; Appendix D), Well No. 1 was completed by Apex Drilling, Inc. on June 19, 2023. The well was drilled to a total depth of 600 ft. below ground level (bgl) with a 8 1/2-inch borehole from 0 to 50 ft. bgl, and a 6 1/4-inch borehole from 50 to 600 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 540 ft. bgl with 4 1/2-inch slotted PVC screen from 540 to 600 ft. bgl. According to the driller's lithology log and interpreted geophysical logs, the well was completed in the Hickory Aquifer. According to the well report, the well was jetted at an estimated rate of 60 gpm upon completion (Figure 6; Appendix D).

Well No. 2

According to the State Well Report (Tracking No. 642525; Appendix D), Well No. 2 was completed by Apex Drilling, Inc. on June 22, 2023. The well was drilled to a total depth of 600 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl, and a 6 1/4-inch borehole from 50 to 600 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 540 ft. bgl with 4 1/2-inch slotted PVC screen from 540 to 600 ft. bgl. According to the driller's lithology log and interpreted geophysical logs, the well was completed in the Hickory Aquifer. According to the well report, the well was jetted at an estimated rate of 60 gpm upon completion (Figure 6; Appendix D).

Well No. 3

According to the State Well Report (Tracking No. 642528; Appendix D), Well No. 3 was completed by Apex Drilling, Inc. on June 27, 2023. The well was drilled to a total depth of 800 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl, and a 6 1/4-inch borehole from 50 to 800 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 740 ft. bgl with 4 1/2-inch slotted PVC screen from 740 to 800 ft. bgl. According to the driller's lithology log and interpreted geophysical logs, the well was completed in the Hickory Aquifer. According to the well report, the well was jetted at an estimated rate of 25 gpm upon completion (Figure 7; Appendix D).

Well No. 4

According to the State Well Report (Tracking No. 644136; Appendix D), Well No. 4 was completed by Apex Drilling, Inc. on June 28, 2023. The well was drilled to a total depth of 800 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl, and a 6 1/4-inch borehole from 50 to 800 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 740 ft. bgl with 4 1/2-inch slotted PVC screen from 740 to 800 ft. bgl. According to the driller's lithology log and interpreted geophysical logs, the well was completed in the Hickory Aquifer. According to the well report, the well was jetted at an estimated rate of 60 gpm upon completion (Figure 7; Appendix D).



Well No. 5

According to the State Well Report (Tracking No. 644137; Appendix D), Well No. 5 was completed by Apex Drilling, Inc. on July 5, 2023. The well was drilled to a total depth of 780 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl, and a 6 1/4-inch borehole from 50 to 780 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 720 ft. bgl with 4 1/2-inch slotted PVC screen from 720 to 780 ft. bgl. According to the driller's lithology log and interpreted geophysical logs, the well was completed in the Hickory Aquifer. According to the well report, the well was jetted at an estimated rate of 60 gpm upon completion (Figure 8; Appendix D).

Well No. 6

According to the State Well Report (Tracking No. 644138; Appendix D), Well No. 6 was completed by Apex Drilling, Inc. on July 7, 2023. The well was drilled to a total depth of 760 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl, and a 6 1/4-inch borehole from 50 to 760 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 700 ft. bgl with 4 1/2-inch slotted PVC screen from 700 to 760 ft. bgl. According to the driller's lithology log and interpreted geophysical logs, the well was completed in the Hickory Aquifer. According to the well report, the well was jetted at an estimated rate of 25 gpm upon completion (Figure 8; Appendix D).

Well No. 7

According to the State Well Report (Tracking No. 644139; Appendix D), Well No. 7 was completed by Apex Drilling, Inc. on July 14, 2023. The well was drilled to a total depth of 760 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl, and a 6 1/4-inch borehole from 50 to 760 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 700 ft. bgl with 4 1/2-inch slotted PVC screen from 700 to 760 ft. bgl. According to the driller's lithology log and interpreted geophysical logs, the well was completed in the Hickory Aquifer. According to the well report, the well was jetted at an estimated rate of 25 gpm upon completion (Figure 9; Appendix D).

Well No. 8

According to the State Well Report (Tracking No. 644140; Appendix D), Well No. 8 was completed by Apex Drilling, Inc. on July 19, 2023. The well was drilled to a total depth of 800 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl, and a 6 1/4-inch borehole from 50 to 800 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 740 ft. bgl with 4 1/2-inch slotted PVC screen from 740 to 800 ft. bgl. According to the driller's lithology log and interpreted geophysical logs, the well was completed in the Hickory Aquifer. According to the well report, the well was jetted at an estimated rate of 55 gpm upon completion (Figure 6; Appendix D).

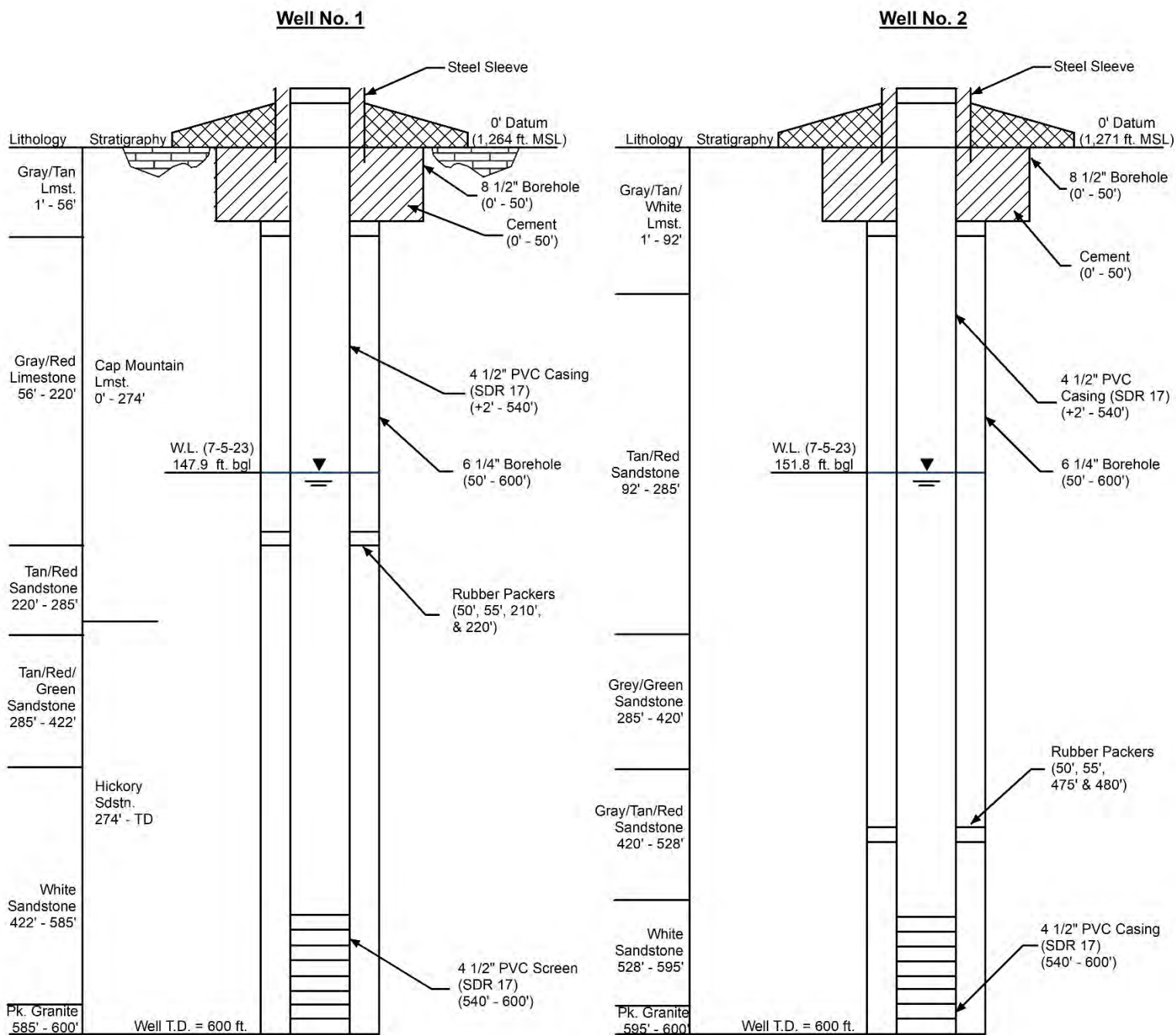


Table 1: Summary of Big Mountain well construction

Well	Tracking No.	Latitude	Longitude	Elevation (ft. MSL)	Date Completed	Aquifer	Well Depth (ft. bgl)	Static Water Level (ft. bgs; date; ft. MSL)	Borehole (diameter ; ft. bgl)	Casing (diameter; material; ft. bgl)	Screen (diameter; material; ft. bgs)
Well No. 1	641879	30° 29' 45" N	98° 29' 8" W	1,264	6-19-23	Hickory	600	147.8 (7-5-23) 1,208.7	8 1/2" (0-50) 6 1/4" (50-600)	4 1/2" PVC (+2 - 540)	4 1/2" PVC Screen (540 – 600)
Well No. 2	642525	30° 29' 44.76" N	98° 29' 5.05" W	1,271	6-22-23	Hickory	600	151.8 (7-5-23) 1,210.3	8 1/2" (0-50) 6 1/4" (50-600)	4 1/2" PVC (+2 - 540)	4 1/2" PVC Screen (540 – 600)
Well No. 3	642528	30° 29' 14.69" N	98° 29' 10.70" W	1,429	6-27-23	Hickory	800	277.1 (7-11-23) 1,252.1	8 1/2" (0-50) 6 1/4" (50-800)	4 1/2" PVC (+2 - 740)	4 1/2" PVC Screen (740 – 800)
Well No. 4	644136	30° 29' 17.07" N	98° 29' 9.73" W	1,433	6-28-23	Hickory	800	279.7 (7-11-23) 1,181.4	8 1/2" (0-50) 6 1/4" (50-800)	4 1/2" PVC (+2 - 740)	4 1/2" PVC Screen (740 – 800)
Well No. 5	644137	30° 29' 14.53" N	98° 29' 6.98" W	1,430	7-5-23	Hickory	780	284.5 (7-18-23) 1,145.5	8 1/2" (0-50) 6 1/4" (50-760)	4 1/2" PVC (+2 - 720)	4 1/2" PVC Screen (720 – 780)
Well No. 6	644138	30° 29' 19.02" N	98° 29' 26.55" W	1,382	7-7-23	Hickory	760	219.5 (8-7-23) 1,162.5	8 1/2" (0-50) 6 1/4" (50-760)	4 1/2" PVC (+2 - 700)	4 1/2" PVC Screen (700 – 760)
Well No. 7	644139	30° 29' 21.52" N	98° 29' 25" W	1,391	7-14-23	Hickory	760	242.7 (8-31-23) 1,148.3	8 1/2" (0-50) 6 1/4" (50-760)	4 1/2" PVC (+2 - 700)	4 1/2" PVC Screen (700 – 760)
Well No. 8	644140	30° 29' 24.66" N	98° 29' 27.43" W	1,389	7-19-23	Hickory	800	271.6 (8-31-23) 1,117.4	8 1/2" (0-50) 6 1/4" (50-800)	4 1/2" PVC (+2 - 740)	4 1/2" PVC Screen (740 – 800)

Note: ft. = feet; bgl = below ground level; MSL = Mean Sea Level





- Notes:
- Well profiles created with the information from State Well Reports and drill cuttings.
 - Figure for schematic purposes; not drawn to scale.



Figure 6: Well construction profiles of Wells No. 1 and No. 2



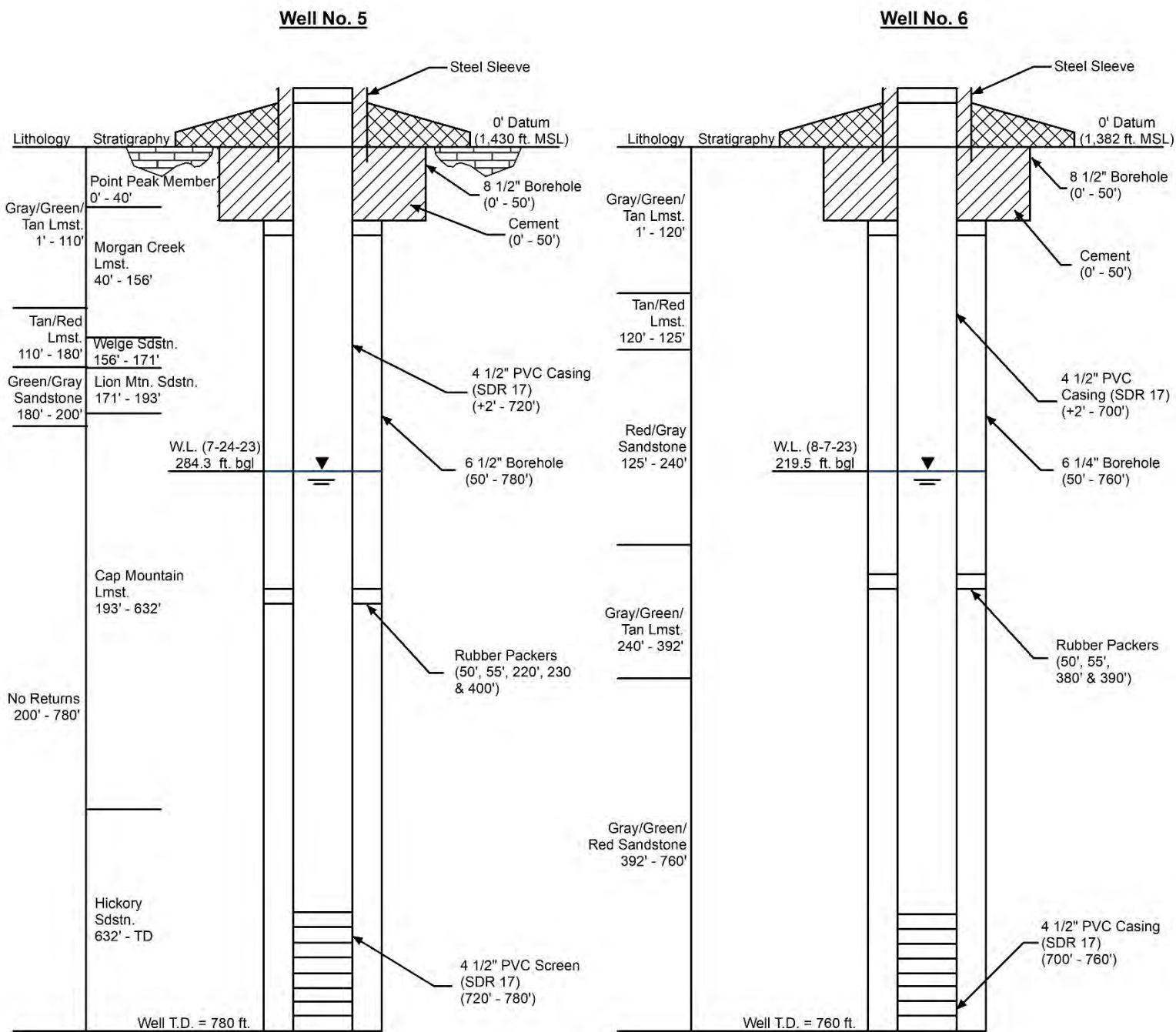
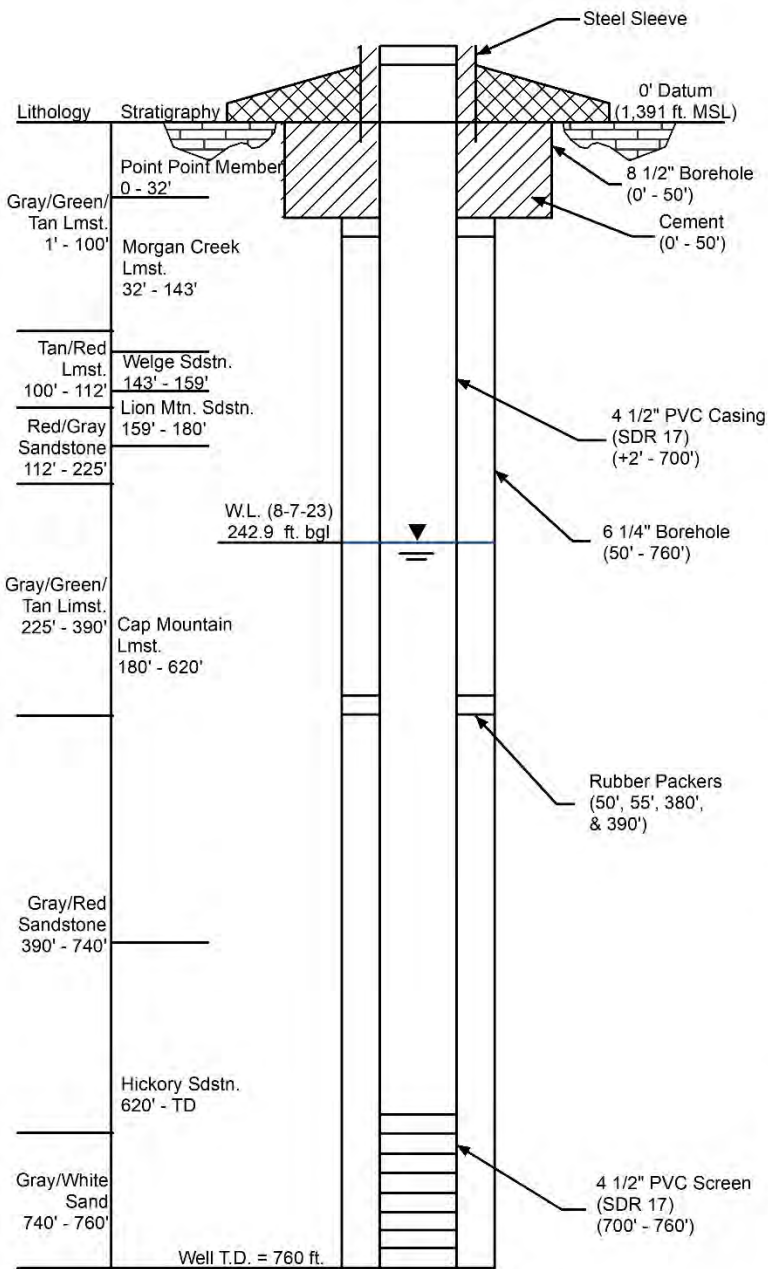


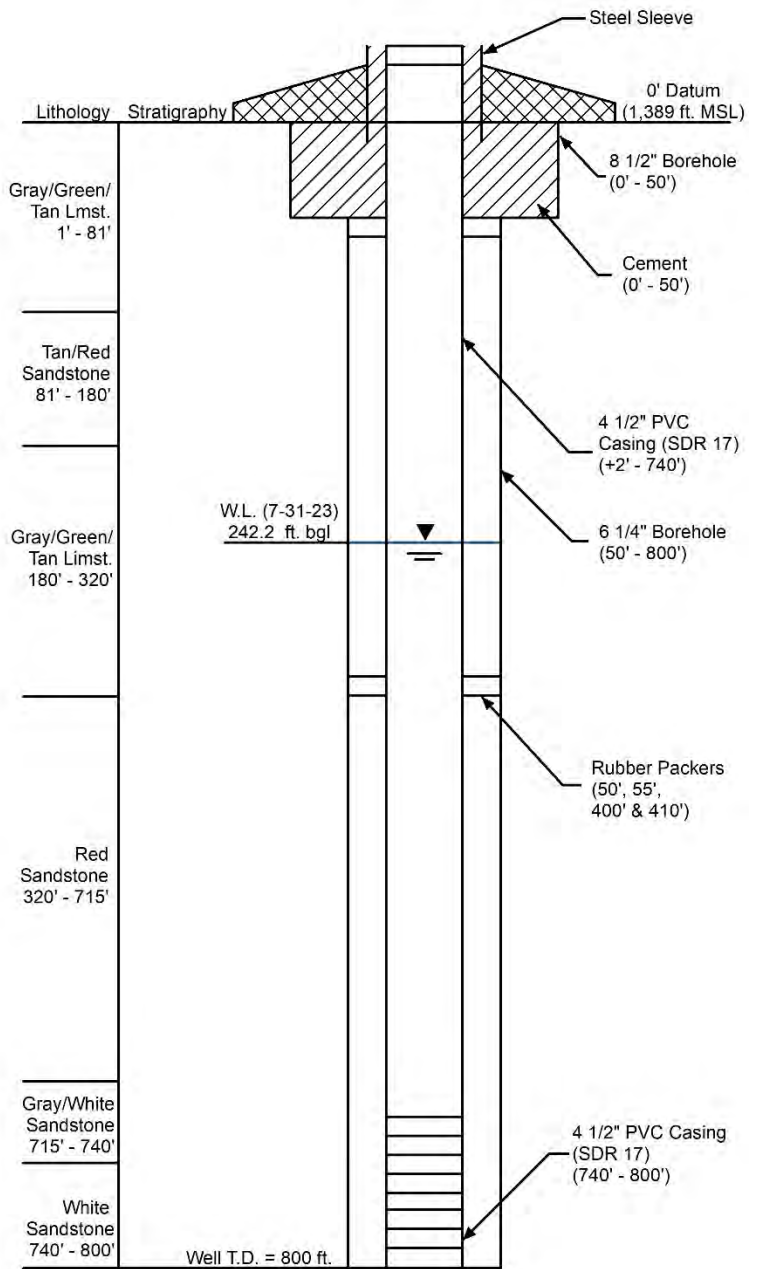
Figure 8: Well construction profiles of Wells No. 5 and No. 6



Well No. 7



Well No. 8



- Notes:
- Well profiles created with the information from State Well Reports and drill cuttings.
 - Figure for schematic purposes; not drawn to scale.

Figure 9: Well construction profiles of Wells No. 7 and No. 8



IV.2. Aquifer Testing

Five (5) aquifer tests were performed utilizing eight (8) wells to assess the hydrogeologic properties of the Hickory Aquifer within the proposed subdivision. The objective was to perform each aquifer test with a 24-hour pumping phase followed by a recovery phase in which the pumping well achieved 90% recovery. For each aquifer test, Apex Drilling, Inc. set a submersible pump within the pumping well that was capable of varying its discharge rate. Prior to the start of the aquifer test, pressure transducers capable of measuring the water level and temperature at one-minute intervals were placed in the pumping and observation wells to gather data for the duration of each test. Flow meter readings and water levels were taken prior to, during, and at the conclusion of the tests. Each aquifer test had at least a 24-hour pumping phase followed by a recovery phase. The data from the aquifer test was analyzed using the Cooper-Jacob method. Table 2 provides a summary of the aquifer testing results; Appendix E provides the results of the aquifer analysis; and Appendix F provides well efficiency calculations for each well.

IV.2.1. Aquifer Test of Well No. 1 (July 6, 2023)

The aquifer test of Well No. 1 was conducted on July 6, 2023 with Well No. 2 as the observation well located approximately 260 feet away from the pumping well. The pumping phase started at 10:21 A.M. on July 6, 2023; the water level was monitored for 24.6 hours of pumping and for 24.0 hours of recovery. Prior to the pumping phase of the aquifer test, the static water level was measured in Well No. 1 at 152.7 ft. bgl (1,111.3 ft. MSL) and in Well No. 2 at 155.7 ft. bgl (1,115.3 ft. MSL). Figure 10 provides a hydrograph of the pumping well and temperature over the duration of the aquifer test; Figure 11 provides a hydrograph of both the pumping and observation well over the duration of the test.

Well No. 1 was pumped at an average rate of 28 gpm with a final measured pumping rate of 28 gpm with 146.04 feet of drawdown, resulting in a specific capacity of 0.19 gpm/ft. When compared to the theoretical specific capacity (0.14 gpm/ft), Well No. 1 exhibited a well efficiency of 136%. The Cooper-Jacob method resulted in a calculated transmissivity of 39.1 ft²/day, and a hydraulic conductivity of 0.12 ft./day. A maximum drawdown of 31.77 feet was observed in Well No. 2 indicating a hydraulic connection between the two wells. Due to the observed hydraulic connection, we calculated a storativity value for Well No. 2 of 4.3×10^{-5} .

Well No. 1 exhibited the majority of drawdown within the first 3 hours of the pumping phase (122 feet; Figure 10). The pumping level slowly drew down for the remainder of the test, reaching a stable pumping level near the end of the pumping phase. The water level in the observation well showed a noticeable response directly related to starting and stopping the pump in Well No. 1 (Figure 11). After the pump was shut off, recovery was measured in both wells; the water level in the pumping well recovered 90% in approximately 9 hours. There were no aquifer boundary conditions observed during the testing.



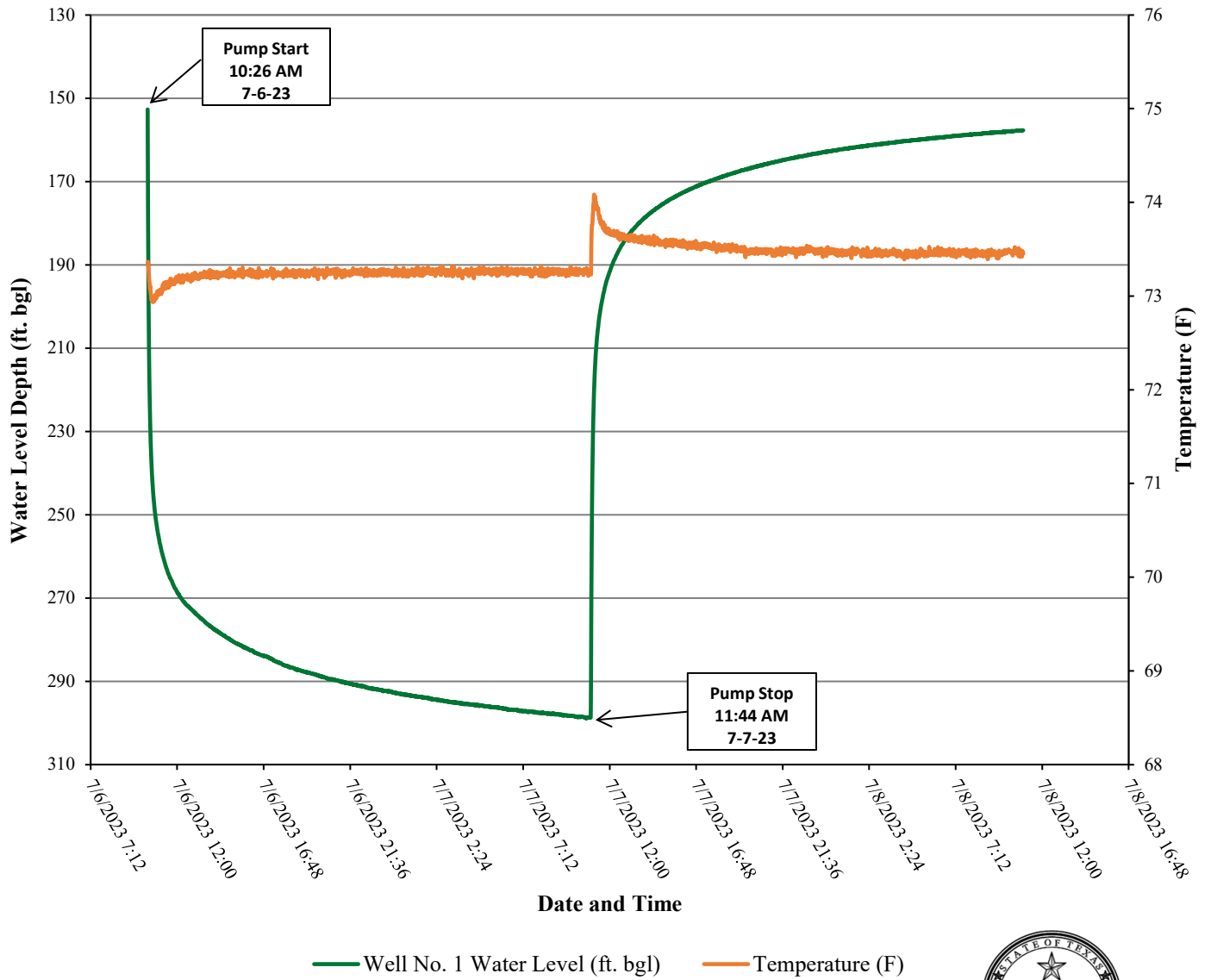


Figure 10: Aquifer test hydrograph of Well No. 1 (July 6, 2023)



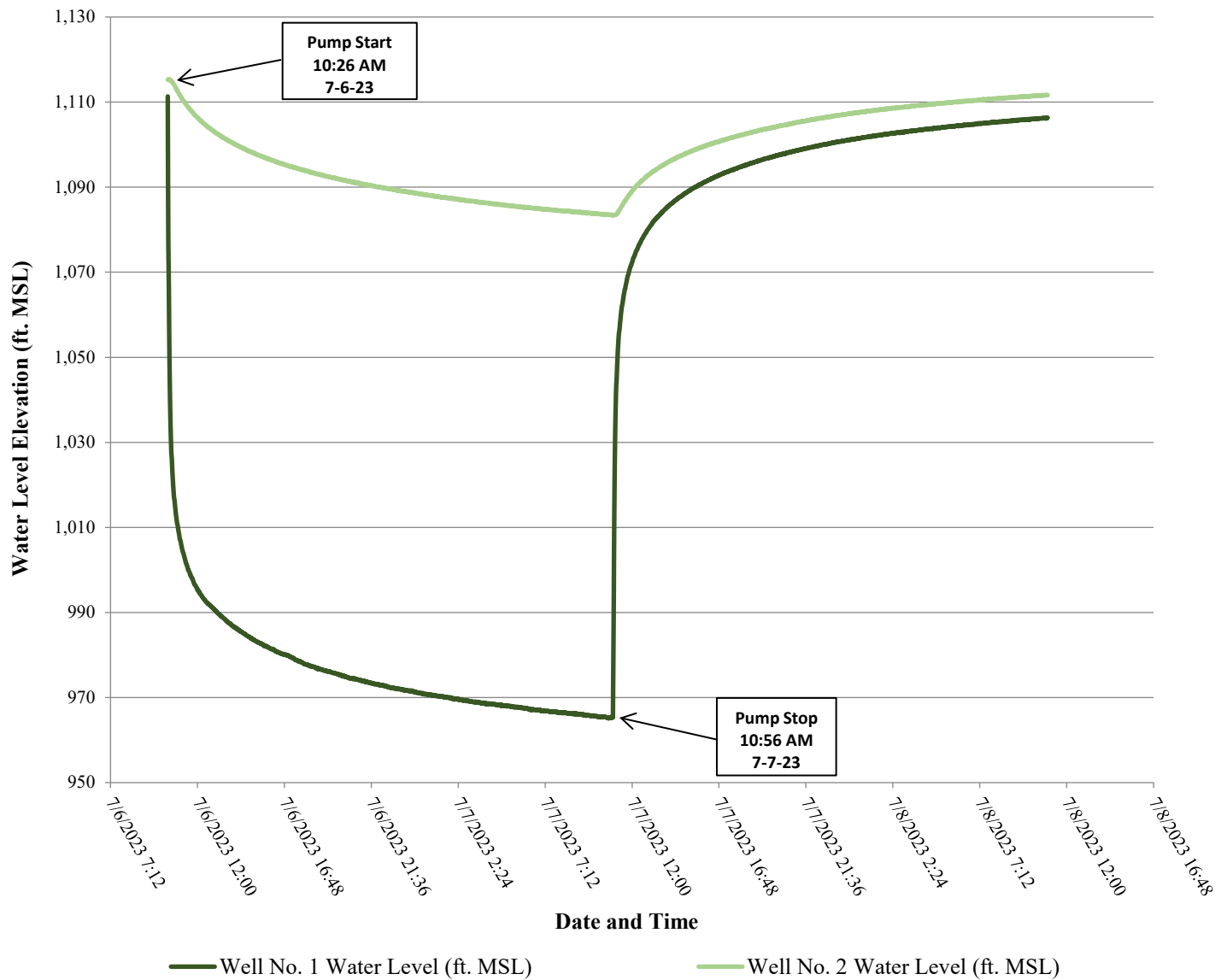


Figure 11: Aquifer test hydrograph of Well No. 1 and Observation Well No. 2 (July 6, 2023)



IV.2.2. Aquifer Test of Well No. 4 (July 14, 2023):

The aquifer test of Well No. 4 was conducted on July 14, 2023 with Well No. 3 as the observation well located approximately 250 feet away from the pumping well. The pumping phase started at 9:18 A.M. on July 14, 2023; the water level was monitored for 24.4 hours of pumping and for 24.0 hours of recovery. Prior to the pumping phase of the aquifer test, the static water level was measured in Well No. 4 at 287.8 ft. bgl (1,145.2 ft. MSL) and in Well No. 3 at 282.3 ft. bgl (1,146.7 ft. MSL). Figure 12 provides a hydrograph of the pumping well and temperature over the duration of the aquifer test; Figure 13 provides a hydrograph of both the pumping and observation well over the duration of the test.

Well No. 4 was pumped at an average rate of 24 gpm with a final measured pumping rate of 24 gpm with 232.57 feet of drawdown, resulting in a specific capacity of 0.10 gpm/ft. When compared to the theoretical specific capacity (0.08 gpm/ft), Well No. 4 exhibited a well efficiency of 125%. The Cooper-Jacob method resulted in a calculated transmissivity of 29.0 ft²/day, and a hydraulic conductivity of 0.12 ft./day. A maximum drawdown of 49.65 feet was observed in Well No. 3 indicating a hydraulic connection between the two wells. Due to the observed hydraulic connection, we calculated a storativity value for Well No. 3 of 2.2×10^{-5} .

Well No. 4 exhibited the majority of drawdown within the first 3 hours of the pumping phase (197 feet; Figure 12). A temporary shutoff of the generator occurred within 20 minutes into the start of the pumping phase that lasted for 1 minute. The pumping level slowly drew down for the remainder of the test, reaching a stable pumping level near the end of the pumping phase. The water level in the observation well showed a noticeable response directly related to starting and stopping the pump in Well No. 4 (Figure 11). After the pump was shut off, recovery was measured in both wells; the water level in the pumping well recovered 90% in approximately 5 hours. There were no aquifer boundary conditions observed during the testing.



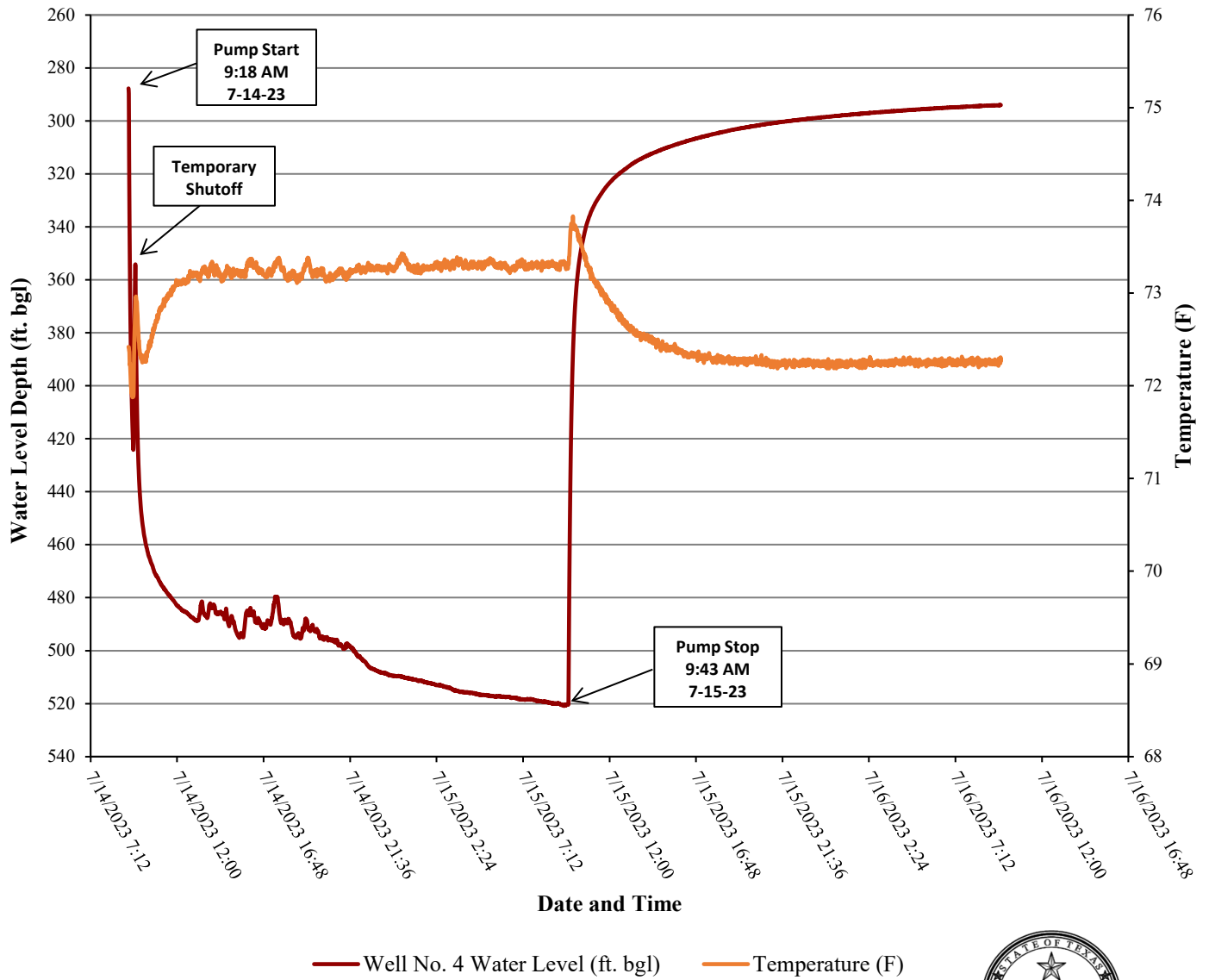


Figure 12: Aquifer test hydrograph of Well No. 4 (July 14, 2023)



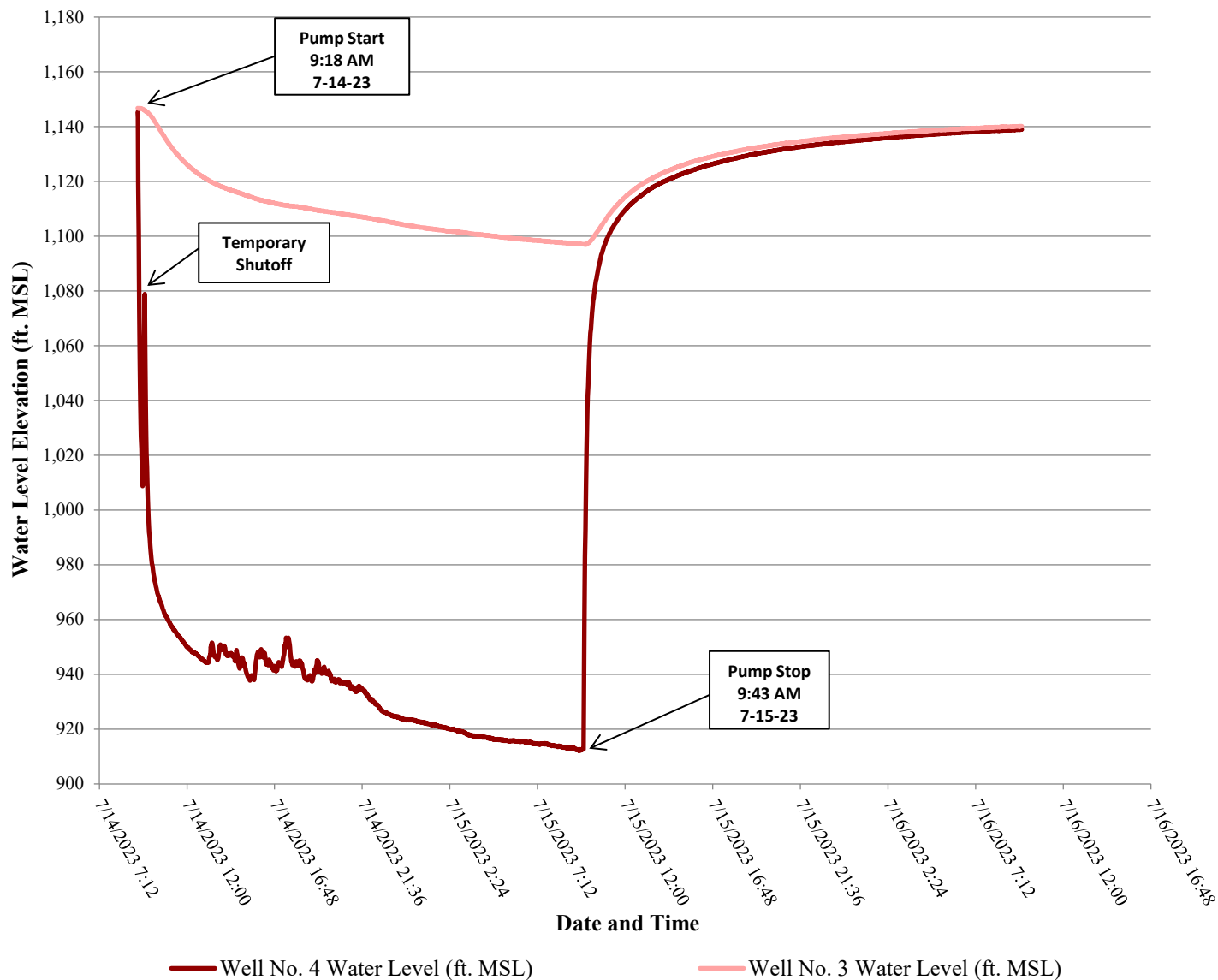


Figure 13: Aquifer test hydrograph of Well No. 4 and Observation Well No. 3 (July 14, 2023)



IV.2.3. Aquifer Test of Well No. 5 (July 24, 2023):

The aquifer test of Well No. 5 was conducted on July 24, 2023 with Well No. 4 serving as the observation well located approximately 350 feet away. The pumping phase started at 12:25 P.M. on July 24, 2023; the water level was monitored for 24.1 hours of pumping and for 24.0 hours of recovery. Prior to the pumping phase of the aquifer test, the static water level was measured in Well No. 5 at 284.3 ft. bgl (1,145.7 ft. MSL) and in Well No. 4 at 286.9 ft. bgl (1,146.1 ft. MSL). Figure 14 provides a hydrograph of the pumping well and temperature over the duration of the aquifer test; Figure 15 provides a hydrograph of both the pumping and observation wells over the duration of the test.

Well No. 5 was pumped at an average rate of 12 gpm and the final measured pumping rate was 12 gpm with 206.89 feet of drawdown, resulting in a specific capacity of 0.06 gpm/ft. When compared to the theoretical specific capacity (0.06 gpm/ft), Well No. 5 exhibited a well efficiency of 100%. The Cooper-Jacob analysis resulted in a calculated transmissivity of 14.7 ft²/day, and a hydraulic conductivity of 0.10 ft./day. A maximum drawdown of 13.89 feet was observed in Well No. 4, indicating a hydraulic connection between the two wells. Due to the observed hydraulic connection between the two wells, we calculated a storativity value for Well No. 4 of 4.2×10^{-5} .

Well No. 5 exhibited the majority of drawdown within the first 3 hours of the pumping phase (182 feet; Figure 14). The pumping level slowly drew down for the remainder of the test, reaching a stable pumping level near the end of the pumping phase. The water level in the observation well showed a noticeable response directly related to starting and stopping the pump in Well No. 5 (Figure 15). After the pump was shut off, recovery was measured in both wells; the water level in the pumping well recovered 90% in approximately 5 hours. There were no aquifer boundary conditions observed during the testing.



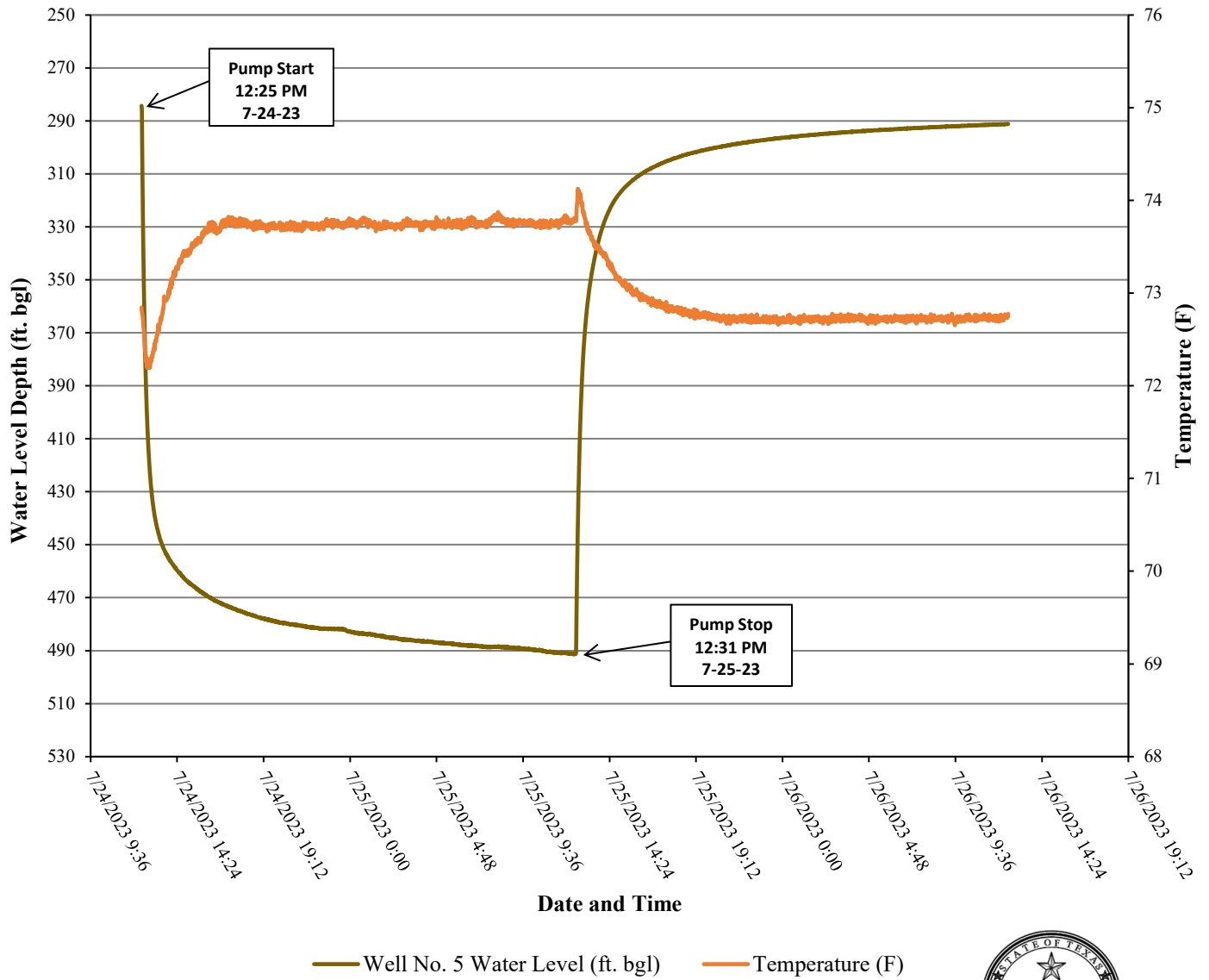


Figure 14: Aquifer test hydrograph of Well No. 5 (July 24, 2023)

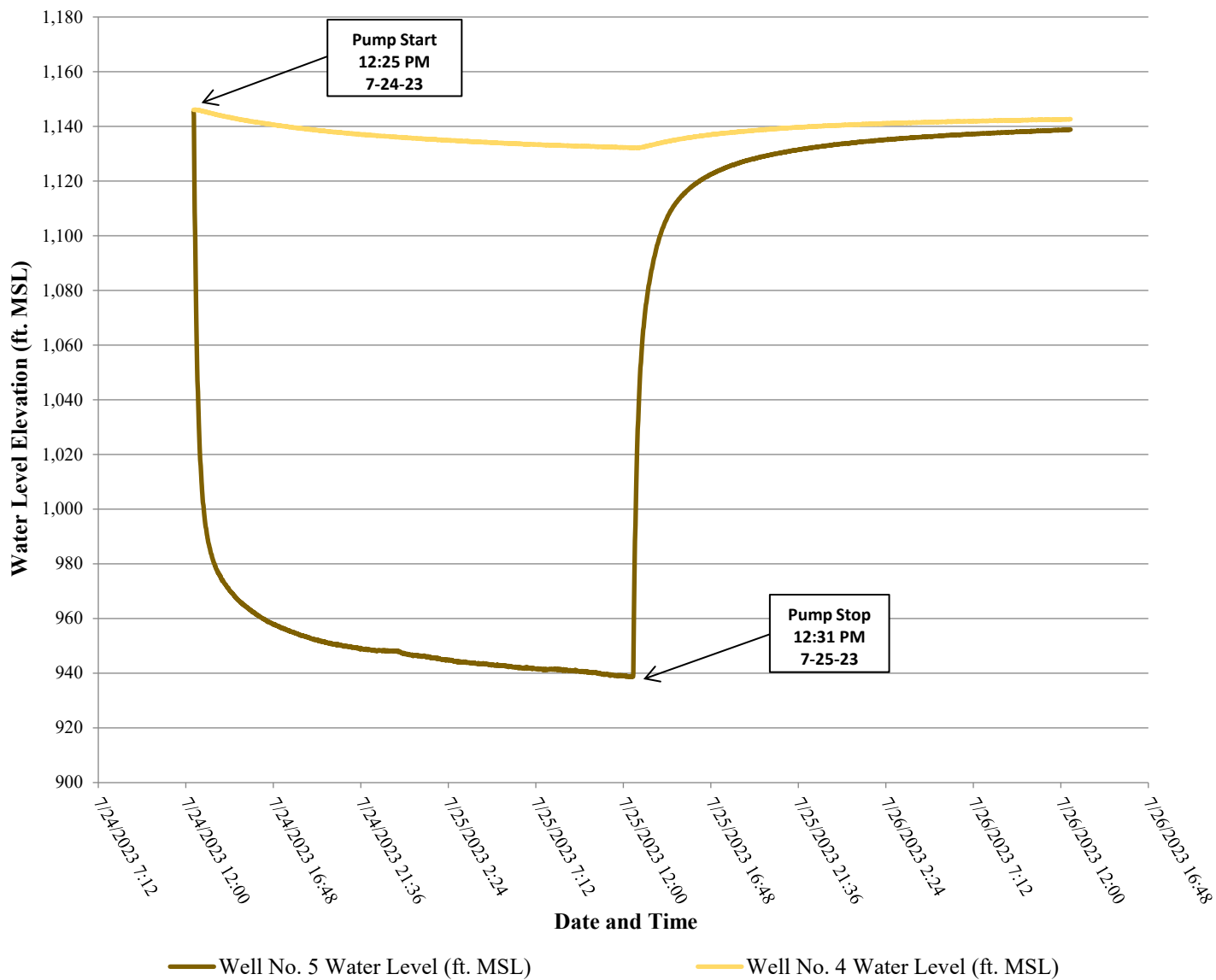


Figure 15: Aquifer test hydrograph of Well No. 5 and Observation Well No. 4 (July 24, 2023)



IV.2.4. Aquifer Test of Well No. 8 (July 31, 2023):

The aquifer test of Well No. 8 was conducted on July 31, 2023 with Well No. 7 serving as the observation well located approximately 380 feet away. The pumping phase started at 1:34 P.M. on July 31, 2023; the water level was monitored for 24.3 hours of pumping and for 24.0 hours of recovery. Prior to the pumping phase of the aquifer test, the static water level was measured in Well No. 8 at 271.6 ft. bgl (1,117.4 ft. MSL) and in Well No. 7 at 242.7 ft. bgl (1,148.3 ft. MSL). Figure 16 provides a hydrograph of the pumping well and temperature over the duration of the aquifer test; Figure 17 provides a hydrograph of both the pumping and observation wells over the duration of the test.

Well No. 8 was pumped at an initial rate of 27 gpm and the final measured pumping rate was 20 gpm with 219.82 feet of drawdown, resulting in a specific capacity of 0.09 gpm/ft. When compared to the theoretical specific capacity (0.07 gpm/ft), Well No. 8 exhibited a well efficiency of 129%. The Cooper-Jacob analysis resulted in a calculated transmissivity of 17.7 ft²/day, and a hydraulic conductivity of 0.10 ft./day. A maximum drawdown of 7.56 feet was observed in Well No. 7, indicating a hydraulic connection between the two wells. Due to the observed hydraulic connection between the two wells, we calculated a storativity value for Well No. 7 of 2.2×10^{-4} .

Well No. 8 was pumped at initial rate of 27 gpm and was reduced to 20 gpm within 35 minutes of the start of the pumping phase. The majority of drawdown in Well No. 8 occurred within the first 3 hours of the pumping phase (178 feet; Figure 16). The pumping level slowly drew down for the remainder of the test, reaching a stable pumping level near the end of the pumping phase. The water level in the observation well showed a noticeable response directly related to starting and stopping the pump in Well No. 8 (Figure 17). After the pump was shut off, recovery was measured in both wells; the water level in the pumping well recovered 90% in approximately 50 minutes. There were no aquifer boundary conditions observed during the testing.



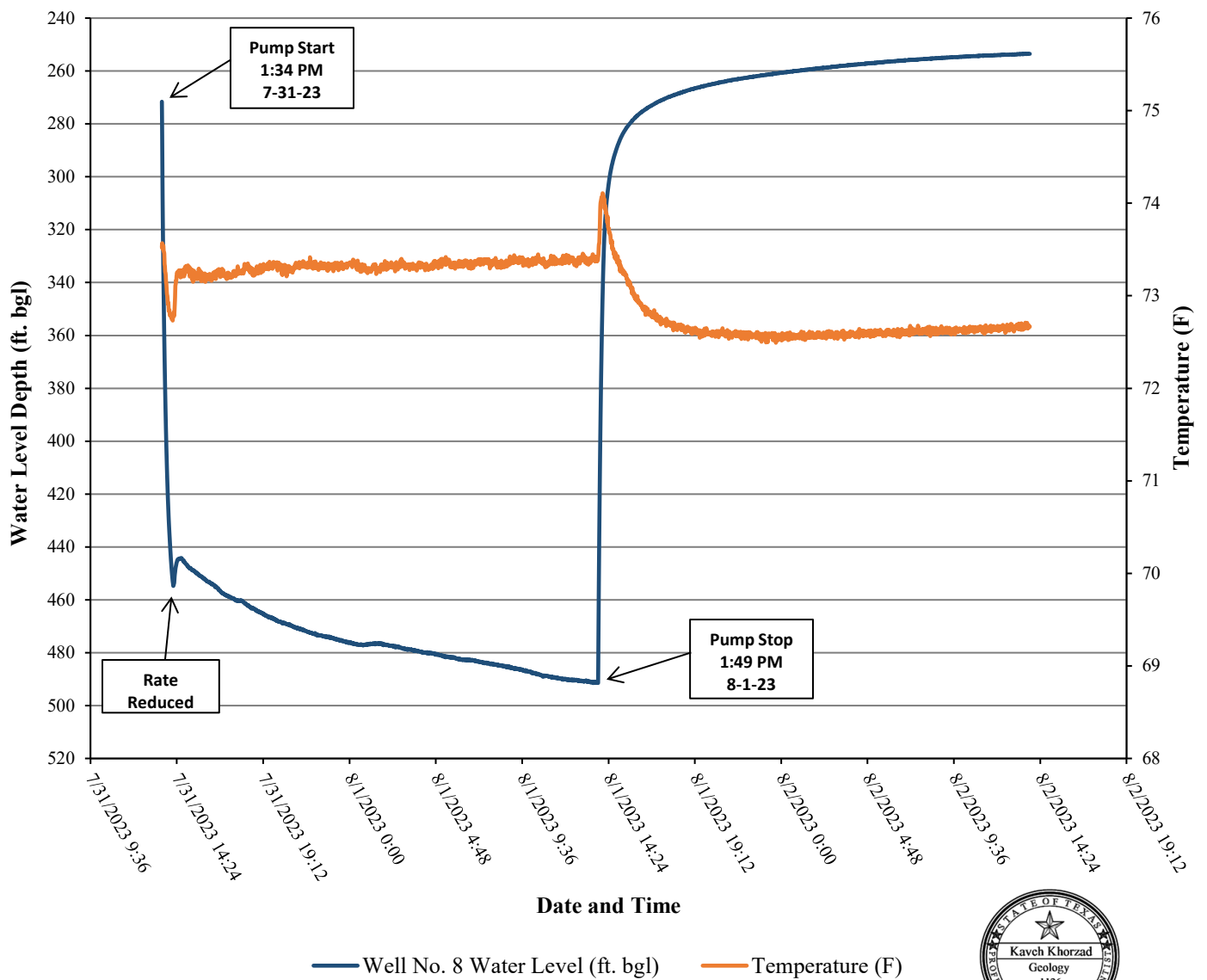


Figure 16: Aquifer test hydrograph of Well No. 8 (July 31, 2023)

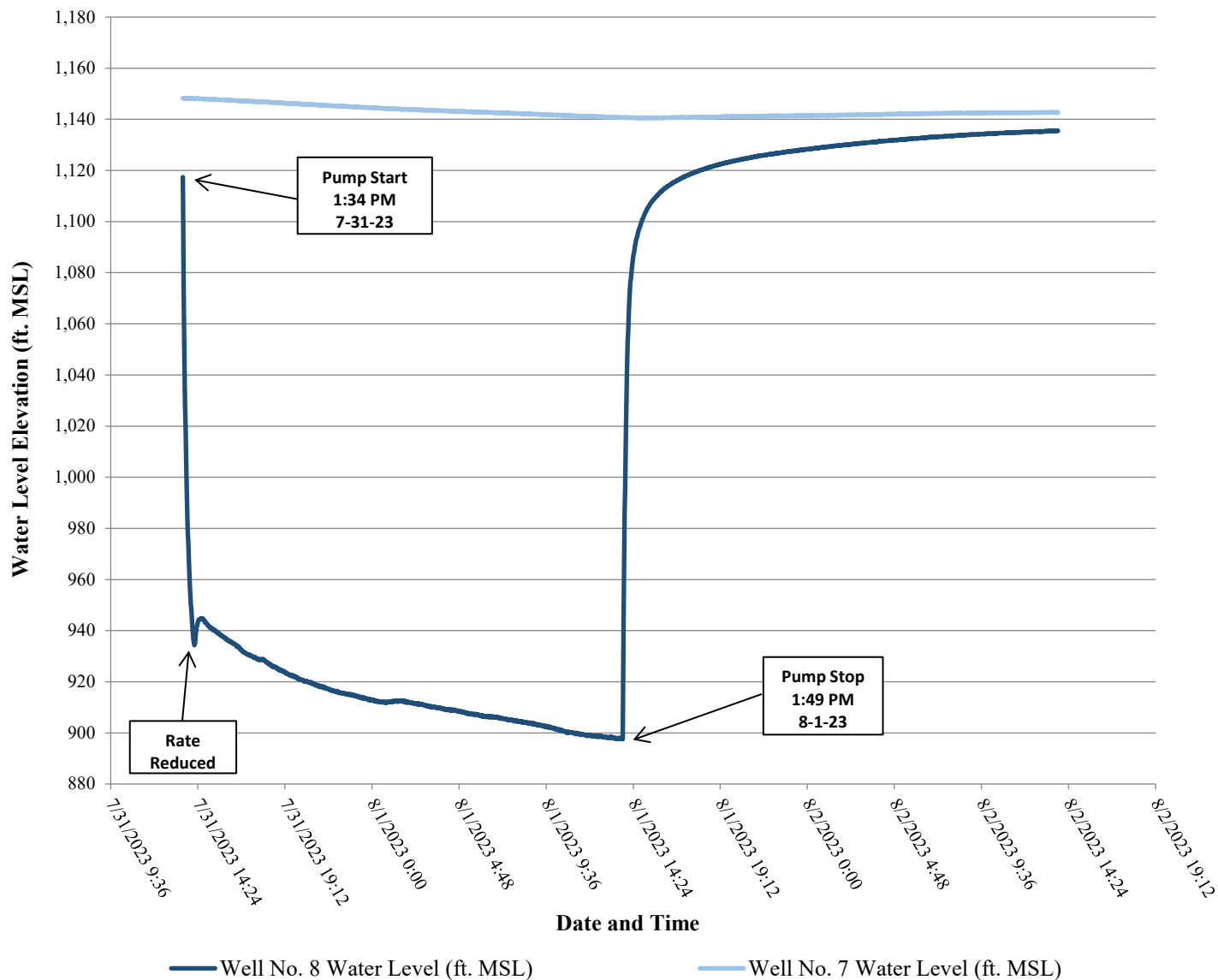


Figure 17: Aquifer test hydrograph of Well No. 8 and Observation Well No. 7 (July 31, 2023)



IV.2.5. Aquifer Test of Well No. 7 (August 7, 2023):

The aquifer test of Well No. 7 was conducted on August 7, 2023 with Well No. 6 serving as the observation well located approximately 290 feet away. The pumping phase started at 10:20 A.M. on August 7, 2023; the water level was monitored for 24.2 hours of pumping and for 24.0 hours of recovery. Prior to the pumping phase of the aquifer test, the static water level was measured in Well No. 7 at 243.1 ft. bgl (1,147.9 ft. MSL) and in Well No. 6 at 219.5 ft. bgl (1,162.5 ft. MSL). Figure 18 provides a hydrograph of the pumping well and temperature over the duration of the aquifer test; Figure 19 provides a hydrograph of both the pumping and observation wells over the duration of the test.

Well No. 7 was pumped at an initial rate of 27 gpm and the final measured pumping rate was 13 gpm with 227.32 feet of drawdown, resulting in a specific capacity of 0.06 gpm/ft. When compared to the theoretical specific capacity (0.06 gpm/ft), Well No. 7 exhibited a well efficiency of 100%. The Cooper-Jacob analysis resulted in a calculated transmissivity of 15.5 ft²/day, and a hydraulic conductivity of 0.10 ft./day. A maximum drawdown of 26.81 feet was observed in Well No. 6, indicating a hydraulic connection between the two wells. Due to the observed hydraulic connection between the two wells, we calculated a storativity value for Well No. 6 of 2.4×10^{-5} .

Well No. 7 was pumped at initial rate of 27 gpm and was reduced to 13 gpm within 2.5 hours of the start of the pumping phase. The majority of drawdown in Well No. 7 occurred within the first 2.5 hours of the pumping phase (210 feet; Figure 18). The pumping level slowly drew down for the remainder of the test, reaching a stable pumping level near the end of the pumping phase. The water level in the observation well showed a noticeable response directly related to starting and stopping the pump in Well No. 7 (Figure 19). After the pump was shut off, recovery was measured in both wells; the water level in the pumping well recovered 90% in approximately 2 hours. There were no aquifer boundary conditions observed during the testing.



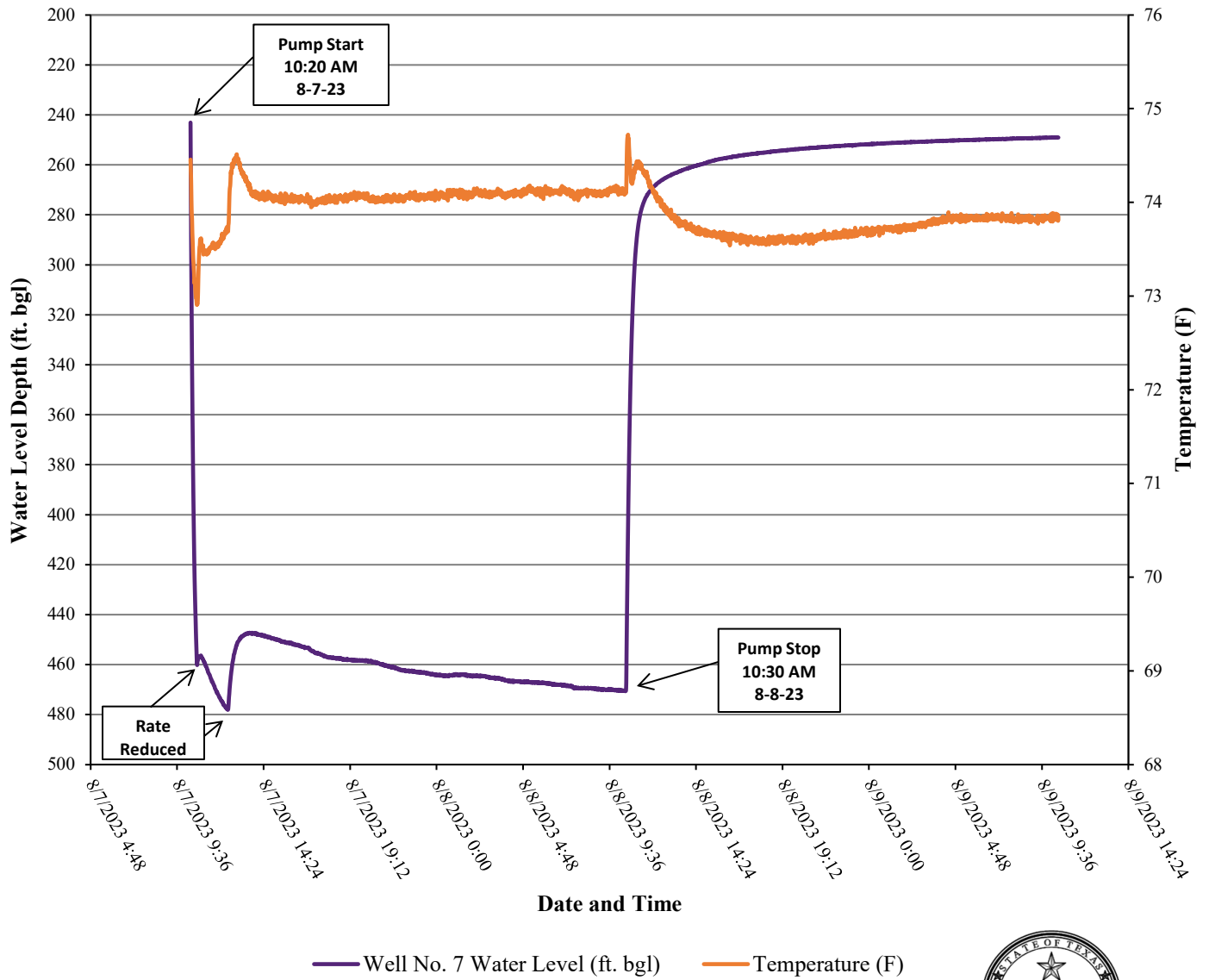


Figure 18: Aquifer test hydrograph of Well No. 7 (August 7, 2023)



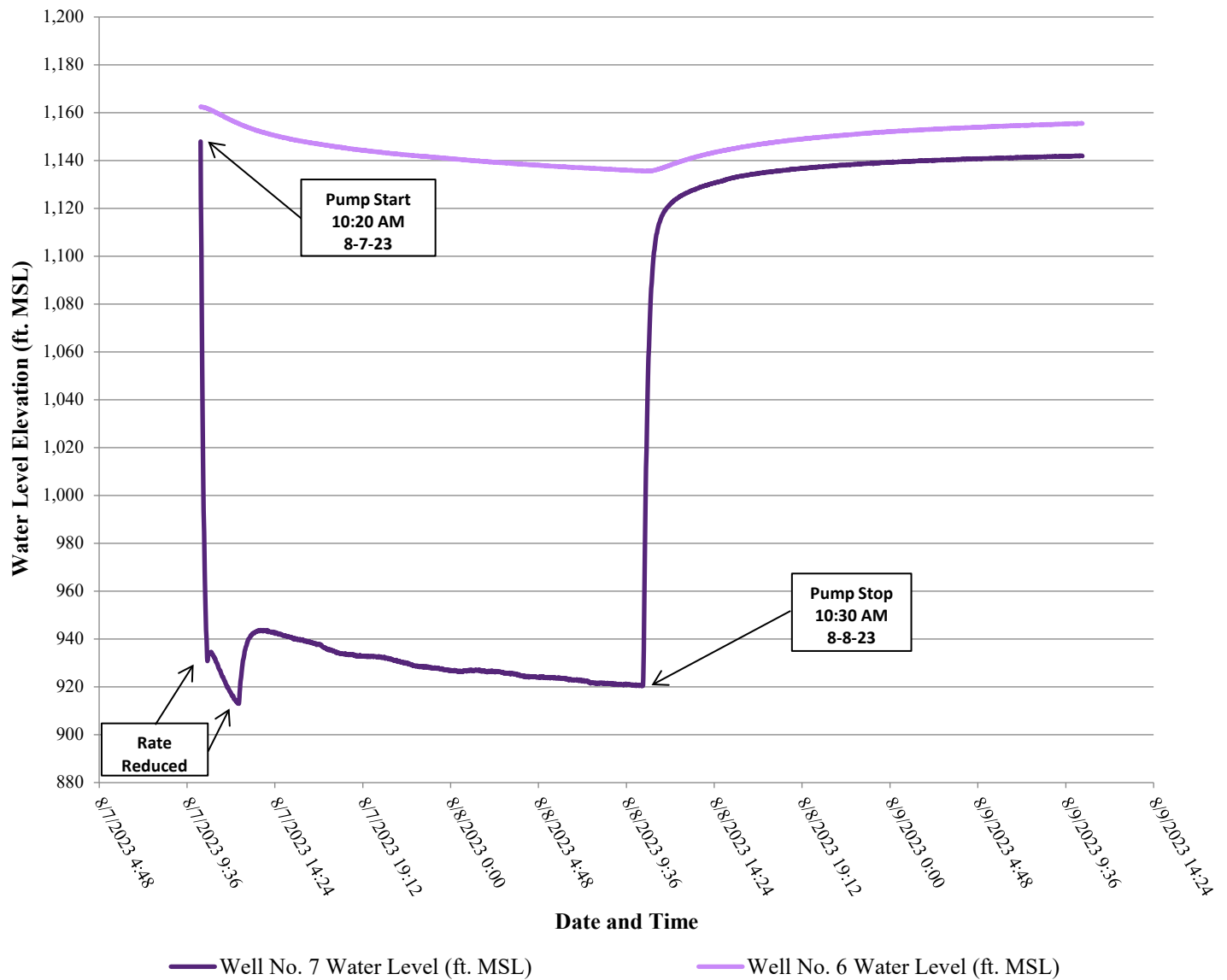


Figure 19: Aquifer test hydrograph of Well No. 7 and Observation Well No. 6 (August 7, 2023)



Table 2: Summary of aquifer test results

Test Date	Well	Average Pump Rate (gpm)	Final Pump Rate (gpm)	Drawdown (ft.)	Specific Capacity (gpm/ft.)	Transmissivity (ft ² /d)	Storativity	Hydraulic Conductivity (ft./d)	Aquifer Thickness (ft.)	Well Efficiency
July 6, 2023	No. 1	28	28	146.04	0.19	39.08	-	0.12	315	136%
	No. 2	-	-	31.77	-	49.67	4.34E-5	-	325	-
July 14, 2023	No. 4	24	24	232.57	0.10	20.59	-	0.12	168	125%
	No. 3	-	-	49.65	-	29.01	2.19E-5	-	168	-
July 24, 2023	No. 5	12	12	206.89	0.06	14.65	-	0.10	148	100%
	No. 4	-	-	13.89	-	35.79	4.21E-5	-	168	-
July 31, 2023	No. 8	20	20	219.82	0.09	17.65	-	0.10	180	129%
	No. 7	-	-	7.56	-	57.88	2.17E-4	-	140	-
Aug. 7, 2023	No. 7	13	13	227.32	0.06	15.52	-	0.11	140	100%
	No. 6	-	-	26.81	-	22.30	2.39E-5	-	140	-

Note: ft. = feet; gpm = gallons per minute; d = day, observation wells are highlighted in blue, aquifer thickness were based upon State Well Reports.

IV.3. Water Quality

A water quality sample was collected from each of the pumping wells at the end of the pumping phase. The samples were collected by Apex Drilling, Inc. staff in a sealed container and stored on ice in a cooler. The samples were transported after collection to Aqua-Tech Laboratories, Inc. and tested in accordance with Texas Administrative Code 230.9 (Determination of Groundwater Quality). Appendix G provides a copy of the water quality reports.

Table 3 provides the water quality summary of the samples. The results were compared to Texas Commission on Environmental Quality (TCEQ) Maximum Contaminant Levels (MCL) and Secondary Contaminant Levels (SCL). In general, the results show all samples met the TCEQ MCLs and SCLs, with the exception of the manganese SCL in Well No. 1. Concentrations above the SCL standards are not considered health risks but may affect the aesthetic quality of the water.

The water samples were also tested for the presence or absence of total coliform and E. coli. Both total coliform and E.coli were absent in all wells.



Table 3: Summary of the water quality analysis results

		Cl	Conductivity (umhos/cm)	F	Fe	NO3	Mn	pH	SO4	Hardness (as CaCO3)	TDS	TC/E. coli
Well	Sample Data	TCEQ MCLs & SCLs										
		300 ²		4 ¹ & 2 ²	0.3 ²	10 ¹	0.05 ²	≥7 ²	300 ²		1000 ²	Presence
No. 1	7/6/23	49.6	769	0.62	0.169	<0.02	0.341	7.3	42.0	330	482	Absent/Absent
No. 4	7/14/23	11.5	757	0.42	0.092	0.470	0.029	7.0	17.3	392	450	Absent/Absent
No. 5	7/24/23	13.3	710	0.65	0.250	0.029	0.019	7.3	26.8	374	440	Absent/Absent
No. 8	7/31/23	7.5	756	0.52	0.149	<0.02	0.022	7.2	17.0	431	448	Absent/Absent
No. 7	8/7/23	80.0	788	0.51	0.262	0.090	0.021	7.1	148	427	468	Absent/Absent

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).



IV.4. Groundwater Availability

Based upon the analyses of the aquifer tests, drawdown estimates were calculated after 10 years and 30 years of continuous production. Figure 21 provides a distance-drawdown plot for a single pumping well producing at a rate of 15 gpm for 0.39 hours per day (350 gallons per day). This pumping volume represents the total water demand at full build out of the subdivision per housing unit (0.39 acre-feet/year for each housing unit).

Assumptions used in the drawdown calculations and overall groundwater availability to the proposed subdivision include inherent uncertainties such as:

- Future pumpage from the aquifer or from interconnected aquifers from area wells outside of the subdivision or any other factor that cannot be predicted that will affect the storage of water in the aquifer;
- Long-term impacts to the aquifer based on climatic variations; and/or,
- Future impacts to usable groundwater due to unforeseen or unpredictable contamination.

Drawdown estimates were calculated using the Theis equation (Theis, 1935). The Theis Equation has several assumptions used to derive the formula which include (Driscoll, 1986):

1. The water-bearing formation is uniform in character and the hydraulic conductivity is the same in all directions;
2. The aquifer is uniform in thickness and infinite in areal extent;
3. The aquifer receives no recharge from any source;
4. The well penetrates, and receives water from the full thickness of the aquifer;
5. The water from storage is discharged instantaneously when the head is lowered;
6. The pumping well is 100% efficient;
7. All water removed from the well comes from aquifer storage;
8. Laminar flow exists through the well and aquifer; and,
9. The water table or potentiometric surface has no slope.

It is important to note that several of the assumptions used to derive the Theis equation are not necessarily appropriate for the Hickory Aquifer. These include assumptions 1, 3 and 7. In addition, the Theis assumptions that (i) the formation receives no recharge from any source and (ii) that all water removed from the well comes from aquifer storage leads to inaccuracies in estimating drawdown. Driscoll (1986) states, *“The assumption that an aquifer receives no recharge during the pumping period is one of the six fundamental conditions upon which the non-equilibrium formulas (Theis) are based. Therefore, all water discharged from a well is assumed to be taken from storage within the aquifer. It is known, however that most formations receive recharge. Hydrographs from long-term observation wells monitored by the US Geological Survey, various state agencies, and similar data-gathering agencies in other parts of the world show that most water-bearing formations receive continual or intermittent recharge.”*



Furthermore, contrary to the Theis assumptions, Konikow and Leake (2014) note that with increased pumping time, (i) the fraction of pumpage derived from storage tends to decrease, and (ii) the fraction derived from capture (recharge) increases. Eventually a new equilibrium will be achieved when no more water is derived from storage and heads, or water levels, in the aquifer stabilize. This result is achieved when the initial cone of depression formed by discharge reaches a new source of water, typically the recharge zone of the aquifer. The actual response time for an aquifer system to reach a new equilibrium is a function of the dimensions, hydraulic properties, and boundary conditions for each specific aquifer. For example, the response time will decrease as the hydraulic diffusivity of the aquifer increases (Theis 1940; Barlow and Leake 2012). The response time can range from days to millennia (Bredehoeft and Durbin 2009; Walton 2011).

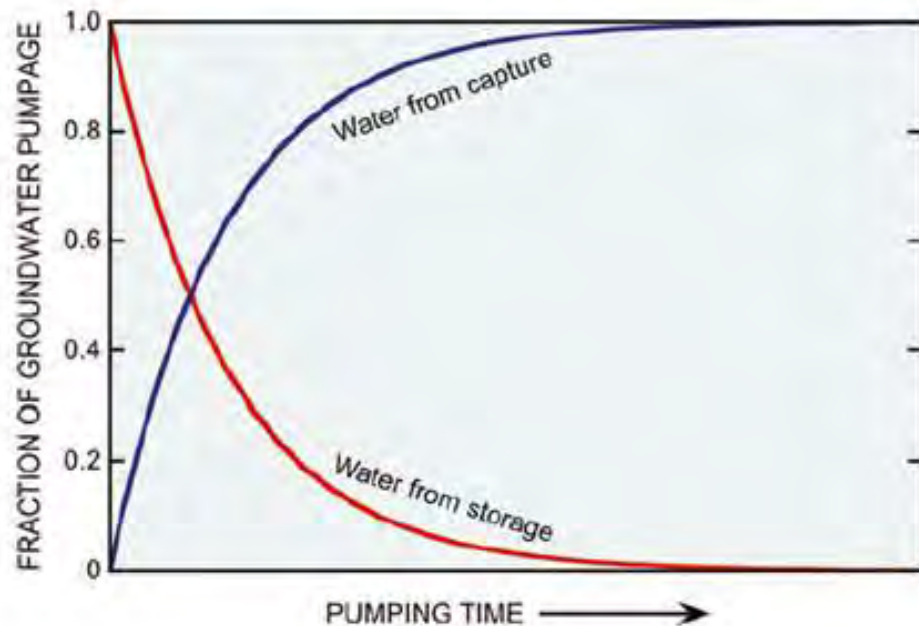


Figure 20: Water sources to a pumping well over time (from Konikow and Leake (2014))

Since the Theis equation (Theis, 1935) assumes (i) that all water is derived from storage and (ii) that the aquifer receives no recharge, the Theis equation may overestimate drawdown within a well that is located in an aquifer that receives recharge rapidly.

Table 4 provides a summary of the results from the distance-drawdown calculation. Estimates of drawdown are based on the following assumptions:

- Total water demand (entire subdivision) = 10.59 acre-feet/year;
- Total water demand (per housing unit) = 0.39 acre-feet/year = 350 gpd;
- The individual well will be pumped at 15 gpm for 0.39 hours per day (Table 5); and
- Median pumping well transmissivity (17.65 ft²/day) and storativity (4.2×10^{-5}) values calculated from aquifer testing were used in the drawdown estimates.

The edge of the cone of depression was estimated by taking the distance from the pumped well where the drawdown flattened out or was minimal.

IV.4.1. Well Spacing

Based upon the drawdown calculated from the distance-drawdown projection, the drawdown after 10 years of production at 15 gpm and a well spacing of 100 feet results in 12.41 feet. At a spacing of 250 feet, the drawdown reduces to 5.42 feet. At a spacing of 500 feet, the drawdown reduces further to 2.01 feet.

Based upon the drawdown calculated from the distance-drawdown projection, the drawdown after 30 years of production at 15 gpm and a well spacing of 100 feet results in 12.64 feet. At a spacing of 250 feet, the drawdown reduces to 5.65 feet. At a spacing of 500 feet, the drawdown reduces further to 2.24 feet.

From the distance drawdown calculations, we recommend that Ranches at Big Mountain Subdivision wells be spaced a minimum distance of 250 feet for wells pumped at rates up to 15 gpm. If landowners are able, we recommend spacing wells as far as possible to limit drawdown from well interference. Some well interference may be more pronounced in areas of the subdivision where the aquifer units are more strongly connected; conversely, well interference may not occur in some areas where the aquifer is either disconnected or where there is high permeability.

Table 4: Summary of distance-drawdown calculation (15 gpm)

	Drawdown at Pumped Well After 10-Years of Pumping	Drawdown at Pumped Well After 30-Years of Pumping	Dist. to Outer Edges of Cone of Depression - 10 years	Dist. to Outer Edges of Cone of Depression - 30 years
Well	(feet)	(feet)	(feet)	(feet)
Pumping Well	164.10	164.33	500	500



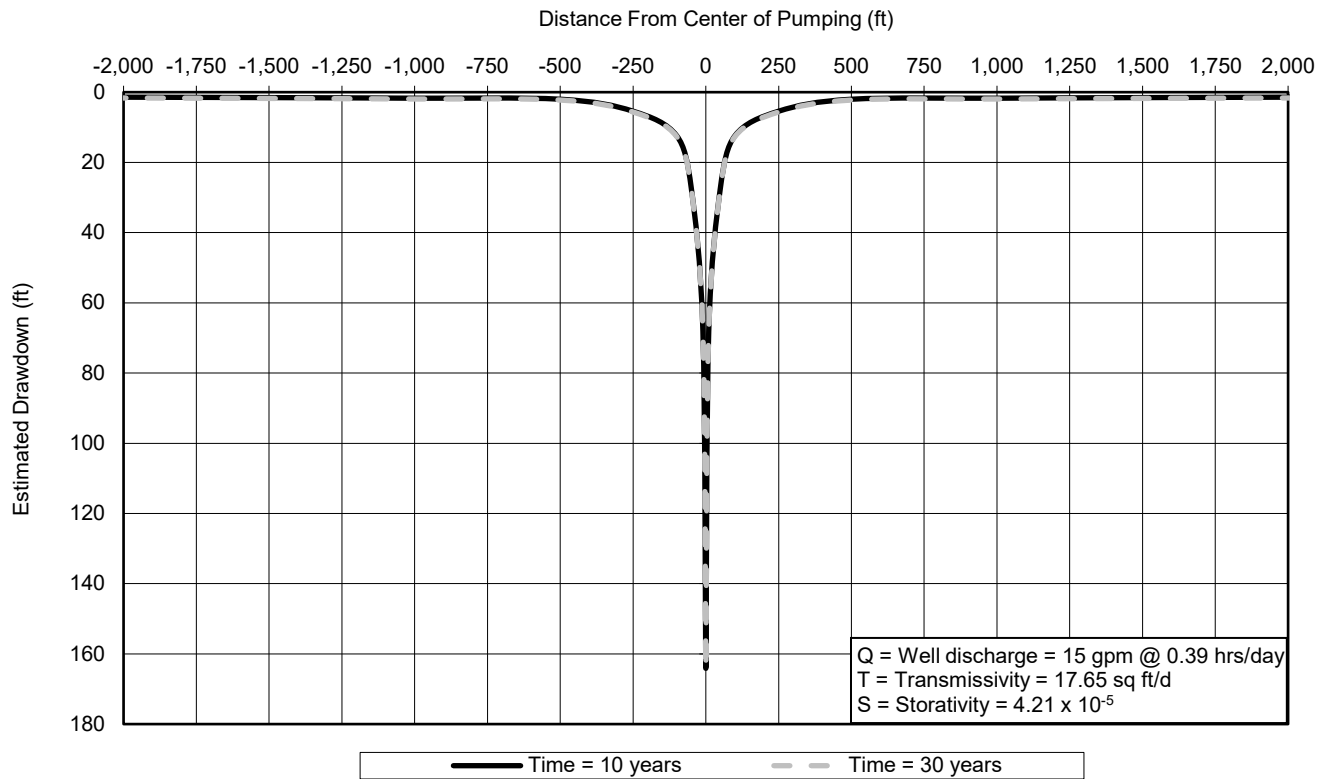


Figure 21: Distance drawdown plot (15 gpm)



IV.4.2. Groundwater Model

A groundwater model was constructed using Aqtesolv (Version 4.5; Duffield, 2007) and FWD:SOLV (Version 2.0; Duffield, 2025) with the Theis (1935)/Hantush (1961) solution to determine the projected impacts from production at the proposed subdivision at full build out.

The model calculates drawdown at each cell using the Theis Equation (Theis, 1935),

$$s = \frac{Q}{4\pi T} W(u) \quad (\text{Equation 1})$$

where:

s = drawdown (feet);

Q = discharge (gallons per minute; gpm);

T = transmissivity (ft.²/day); and

W(u) = well function.

The well function W(u) is estimated by:

$$W(u) = -0.5772 - \ln u + u - \frac{u^2}{2 \times 2!} + \frac{u^3}{3 \times 3!} - \frac{u^4}{4 \times 4} + \dots \quad (\text{Equation 2})$$

where:

$$u = \frac{r^2 S}{4Tt} \quad (\text{Equation 3})$$

r = the radius at which drawdown is estimated (feet); and

S = storativity (dimensionless).

IV.4.3. Drawdown Analysis – Ranches at Big Mountain Subdivision (27 Lots)

A groundwater model was utilized to determine the projected impacts from pumping solely from the subdivision. The groundwater model was designed to estimate drawdown at full buildout (27 lots) after 10 and 30 years of continuous production at a rate of 350 gallons per day (0.243 gpm) per well; the total production rate from the Hickory Aquifer equates to approximately 6.56 gpm. The groundwater model was constructed assuming one well at each lot for a total of twenty seven (27) wells at full buildout (Figure 22).

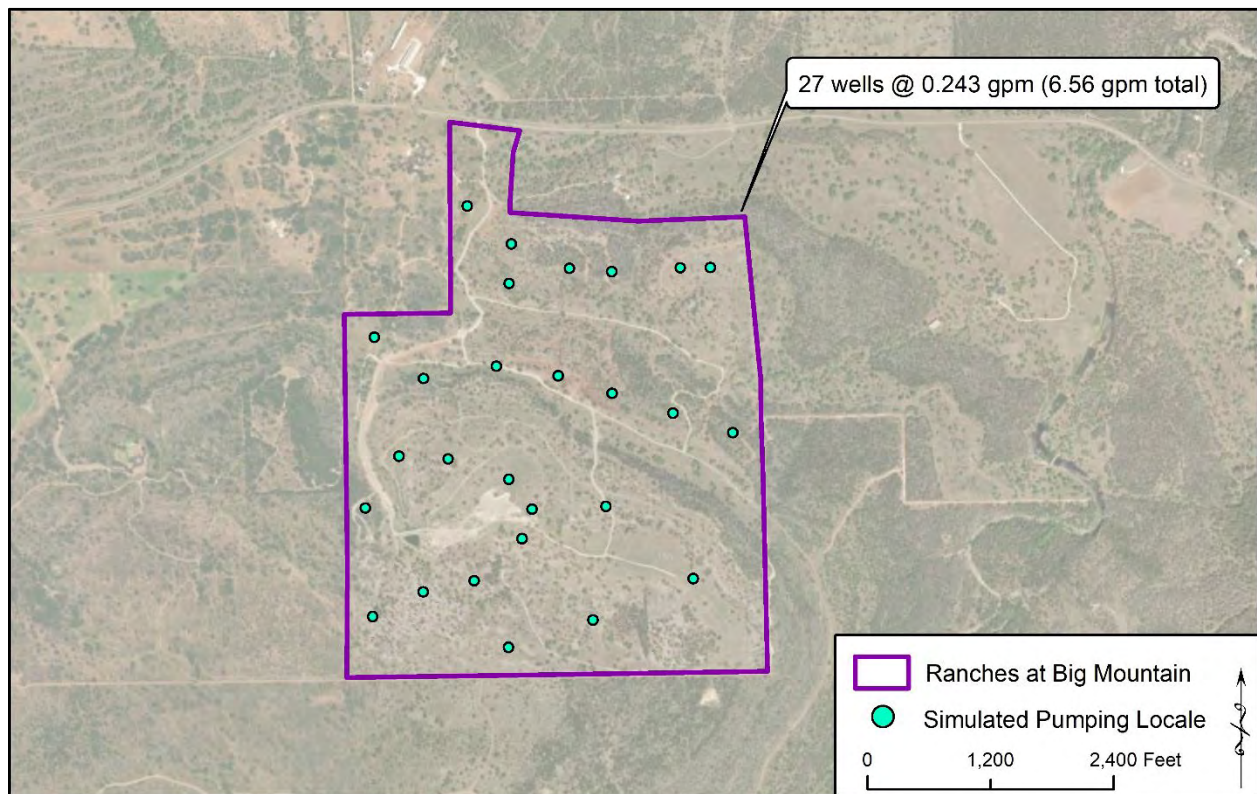


Figure 22: Map showing location of simulated pumping well

In an effort to model the aquifer impacts from the proposed pumping in accordance with site-specific data, the following values calculated from the aquifer testing were utilized:

- Transmissivity: 17.65 ft.²/day (median pumping well value); and,
- Storativity: 4.21×10^{-4} (median value).

Model Results - 10 Years

The results of the model run after 10 years of pumping are summarized in Figure 23 and Table 5. The maximum drawdown calculated after 10 years of continuous production at 350 gallons per day per well results in up to approximately 26.95 feet of drawdown at the nearest subdivision boundary (Figure 23). Table 5 provides the drawdown, water level and water level above the pump after 10 years of continuous pumping at each of the wells within the subdivision with the following assumptions:

- Well depth: 750 ft. bgl (average well depth used in the aquifer testing);
- Static Water Level: 250 ft. bgl (average of the wells used in the aquifer testing); and
- Pump Depth: 730 ft. bgl (20 feet above the bottom of the total depth of well)

Table 5: Summary of 10-year drawdown calculations (27 wells)

Pumping Locale	Assumed Static Water Level (ft. bgl)	Assumed Well Depth (ft. bgl)	Drawdown (ft.)	Modeled Water Levels (ft.bgl; After 10 Years)	Assumed Pump Depth (ft.bgl)	Water Level Above The Pump (ft.)
1	250	750	29.54	279.54	730	450.46
2	250	750	30.72	280.72	730	449.28
3	250	750	30.21	280.21	730	449.79
4	250	750	29.94	279.94	730	450.06
5	250	750	28.31	278.31	730	451.69
6	250	750	27.41	277.41	730	452.59
7	250	750	27.86	277.86	730	452.14
8	250	750	29.98	279.98	730	450.02
9	250	750	31.56	281.56	730	448.44
10	250	750	32.19	282.19	730	447.81
11	250	750	31.99	281.99	730	448.01
12	250	750	30.78	280.78	730	449.22
13	250	750	30.65	280.65	730	449.35
14	250	750	31.97	281.97	730	448.03
15	250	750	32.68	282.68	730	447.32
16	250	750	32.49	282.49	730	447.51
17	250	750	30.88	280.88	730	449.12
18	250	750	27.20	277.20	730	452.8
19	250	750	28.24	278.24	730	451.76
20	250	750	31.89	281.89	730	448.11
21	250	750	28.32	278.32	730	451.68
22	250	750	30.51	280.51	730	449.49
23	250	750	29.37	279.37	730	450.63
24	250	750	27.09	277.09	730	452.91
25	250	750	29.06	279.06	730	450.94
26	250	750	28.49	278.49	730	451.51
27	250	750	27.27	277.27	730	452.73

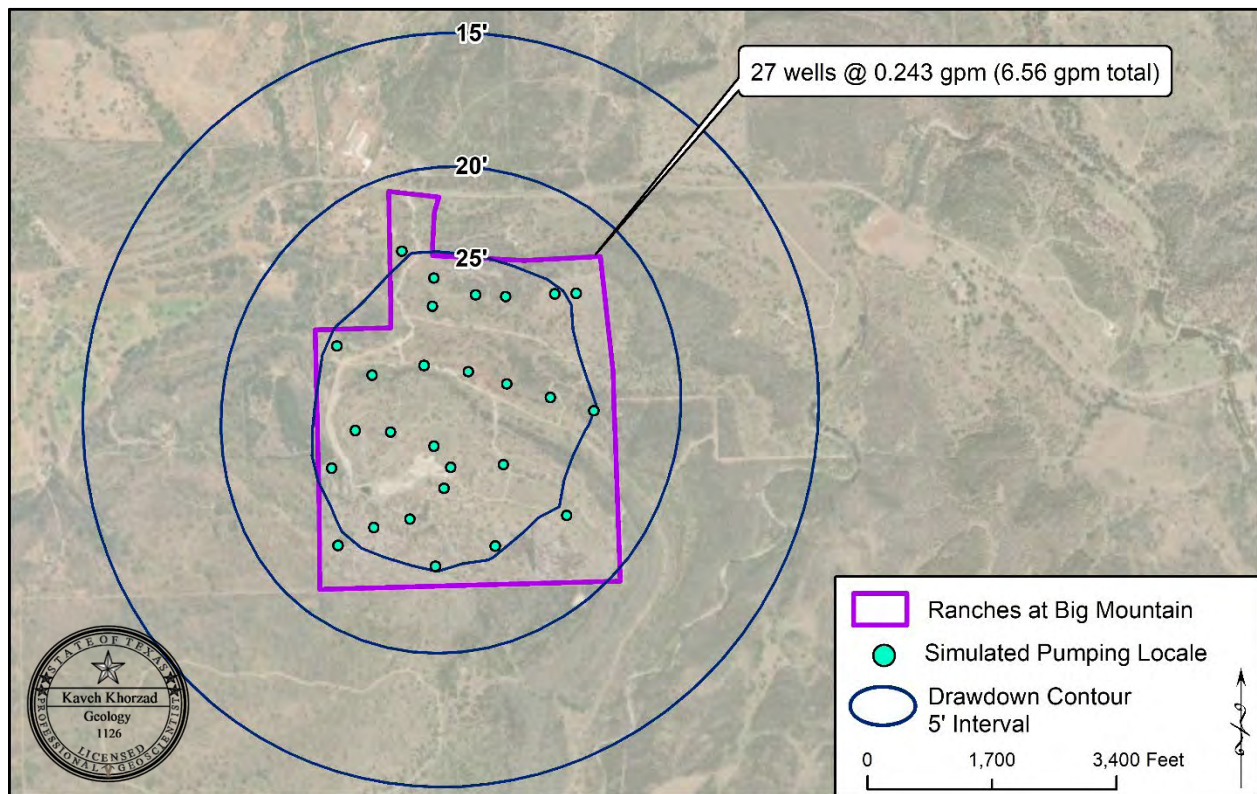


Figure 23: Modeled drawdown after 10 years from production at Ranches at Big Mountain

The modeled water levels after 10 years of production range from 277.09 to 282.68 ft. bgl with drawdown in the wells ranging from 27.09 to 32.68 feet and approximately 447.32 to 452.91 feet of water column above the pump.

Model Results - 30 Years

The results of the model run after 30 years of pumping are summarized in Figure 24 and Table 6. The maximum drawdown calculated after 30 years of continuous production at 350 gallons per day per well results in up to approximately 33.17 feet of drawdown at the nearest subdivision boundary (Figure 24). Table 6 provides the drawdown, water level and water level above the pump after 30 years of continuous pumping at each of the wells within the subdivision with the following assumptions:

- Well depth: 750 ft. bgl (average well depth used in the aquifer testing);
- Static Water Level: 250 ft. bgl (average of the wells used in the aquifer testing); and
- Pump Depth: 730 ft. bgl (20 feet above the bottom of the total depth of well)

Table 6: Summary of 30-year drawdown calculations (27 wells)

Pumping Locale	Assumed Static Water Level (ft. bgl)	Assumed Well Depth (ft. bgl)	Drawdown (ft.)	Modeled Water Levels (ft.bgl; After 30 Years)	Assumed Pump Depth (ft.bgl)	Water Level Above The Pump (ft.)
1	250	750	35.76	285.76	730	444.24
2	250	750	36.94	286.94	730	443.06
3	250	750	36.43	286.43	730	443.57
4	250	750	36.16	286.16	730	443.84
5	250	750	34.52	284.52	730	445.48
6	250	750	33.62	283.62	730	446.38
7	250	750	34.07	284.07	730	445.93
8	250	750	36.21	286.21	730	443.79
9	250	750	37.79	287.79	730	442.21
10	250	750	38.43	288.43	730	441.57
11	250	750	38.23	288.23	730	441.77
12	250	750	37.01	287.01	730	442.99
13	250	750	36.88	286.88	730	443.12
14	250	750	38.20	288.20	730	441.8
15	250	750	38.92	288.92	730	441.08
16	250	750	38.73	288.73	730	441.27
17	250	750	37.11	287.11	730	442.89
18	250	750	33.41	283.41	730	446.59
19	250	750	34.46	284.46	730	445.54
20	250	750	38.13	288.13	730	441.87
21	250	750	34.53	284.53	730	445.47
22	250	750	36.74	286.74	730	443.26
23	250	750	35.58	285.58	730	444.42
24	250	750	33.29	283.29	730	446.71
25	250	750	35.28	285.28	730	444.72
26	250	750	34.71	284.71	730	445.29
27	250	750	33.48	283.48	730	446.52

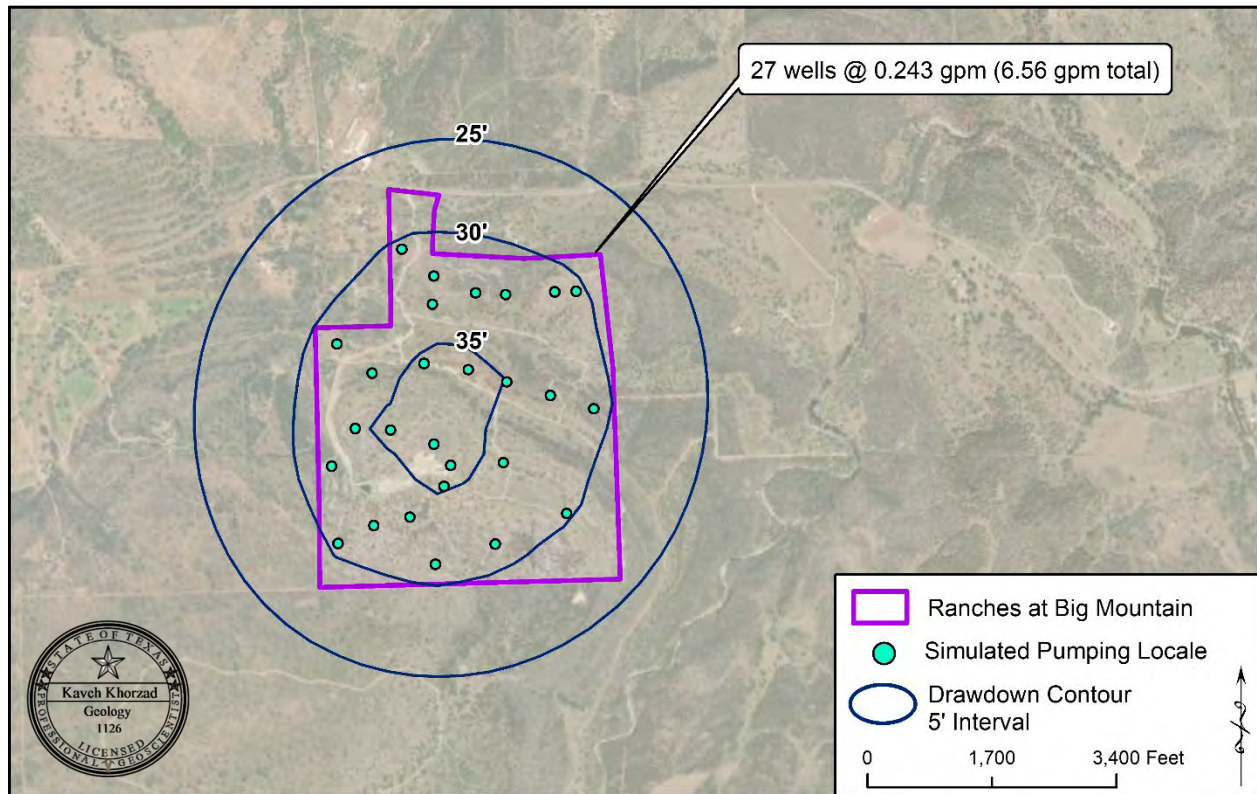


Figure 24: Modeled drawdown after 30 years from production at Ranches at Big Mountain

The modeled water levels after 30 years of production range from 283.29 to 288.92 ft. bgl with drawdown in the wells ranging from 33.29 to 38.92 feet and approximately 441.08 to 446.71 feet of water column above the pump.

It is important to note that the model results are based upon an assumption of zero recharge which represents a worst-case scenario. In reality, recharge does occur and would reduce the impacts of drawdown.

Section V: Certification

I, Kaveh Khorzad, Texas Licensed Professional Geoscientist, certificate number 1126, based on best judgment, current groundwater conditions, and the information developed and presented in this study, certify that adequate groundwater is available from the underlying aquifer to supply the anticipated use of the proposed subdivision.

The Hickory Aquifer at the Ranches at Big Mountain exhibits variable yield and water quality and is susceptible to reduction in yield during prolonged drought. For these reasons we recommend that each homeowner construct their well and set their pump as deep as practical to protect from lowering water levels during drought.



Section VI: References

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Appendix A

Certification of Groundwater Availability for Platting Form





CERTIFICATION OF GROUNDWATER AVAILABILITY FOR PLATTING FORM

Title 30 Texas Administrative Code (TAC), Section 230.4 (30 TAC 230.4)

Use of this form: The municipal authority pursuant to Texas Local Government Code (TLGC) Section 212.0101, or a county authority pursuant to TLGC Section 232.0032, the plat applicant and the Texas licensed professional engineer or Texas licensed professional geoscientist must use this form based upon the requirements of Title 30, TAC, Chapter 230 to certify that adequate groundwater is available under the land to be subdivided (if the source of water for the subdivision is groundwater under the subdivision) for any subdivision subject to platting under TLGC Section 212.004 and 232.001. The form and 30 TAC Chapter 230 do not replace state requirements applicable to public drinking water supply systems or the authority of counties or groundwater conservation districts under either Texas Water Code (TWC) Section 35.019 or TWC Chapter 36.

For any questions regarding this form, contact the TCEQ Water Availability Division, Groundwater Planning and Assessment Team at GPAT@tceq.texas.gov or by phone at (512) 239-4600.



Certification of Groundwater Availability for Platting Form

Administrative Information, 30 TAC 230.4

1. Name of Proposed Subdivision:

Ranches at Big Mountain

2. Any Previous Names that Identify the Tract of Land:

3. Property Owner(s) Information:

Name: Mike Clinard

Address: 10399 FM 2325, Wimberley, Texas 78676

Phone: 713-208-7171

Fax:

Email: mike@ranchesat.com

4. Plat Applicant Information:

Name: Ranches at Round Mountain, LLC

Address: 10399 FM 2325, Wimberley, Texas 78676

Phone: 713-208-7171

Fax:

Email: mike@ranchesat.com

5. Licensed Professional Engineer or Geoscientist's Information:

Name: Kaveh Khorzad

Address: 317 Ranch Road 620 S., Suite 303, Lakeway, Texas 78734

Phone: 512-773-3226

Fax:

Email: k.khorzad@wetrockgs.com

Certificate / License Number: 1126

6. Location and Property Description of Proposed Subdivision:

The Ranches at Big Mountain is located off of Ranch to Market 3347 approximately 9 miles northwest of Round Mountain in northwestern Blanco County.

7. Tax Assessor Parcel Number(s).

Book:

Map:

Parcel:

Proposed Subdivision Information, 30 TAC 230.5

8. Purpose of Proposed Subdivision (single family/multi-family residential, non-residential, commercial, other):

If "Other," explain:

9. Size of Proposed Subdivision (in acres):

10. Number of Proposed Lots:

11. Average Size of Proposed Lots (in acres):

12. Anticipated Method of Water Distribution (check all that apply):

☐ Expansion of Existing Public Water System (PWS)

☐ New (Proposed) PWS System

☒ Individual Water Wells to Serve Individual Lots

☐ Combination of Methods (Describe below)

Description, if needed:

13. Additional Information, if required by the municipal or county authority:

14. If PWS is anticipated, a written application for service for existing water providers within a one-half mile radius must be attached to this form (30 TAC 230.5(f)). Is this application for service for existing water providers attached to this form?

☐ YES ☒ N/A

Projected Water Demand Estimate, 30 TAC 230.6

15. Residential Water Demand estimate at Full Build Out (includes both single family and multi-family residential):

- a. Number of Proposed Housing Units (single and multi-family):
- b. Average Number of Persons Per Housing Unit:
- c. Volume of Water Required Per Person Per Day (gallons):
- d. Water Demand Per Housing Unit Per Year (acre-feet):
- e. Total Expected Residential Water Demand Per Year (acre-feet):

16. Non-Residential Water Demand Estimate at Full Build-Out (acre-feet/year):

- a. Type(s) of Non-Residential Water Use(s):

N/A

- b. Water Demand Per Type Per Year (acre-feet):

10.59 acre-feet/year at full build out

17. Total Water Demand Estimate at Full Build-Out (acre-feet/year):

18. Sources of Information Used for Demand Estimates:

Blanco-Pedernales Groundwater Conservation District Rules
Blanco County Development Rules and Regulations

General Groundwater Resource Information, 30 TAC 230.7

19. Identify and describe the aquifer(s) that underlie(s) the proposed subdivision, using Texas Water Development Board (TWDB) names:

Mid-Cambrian Aquifer (minor aquifer)
Hickory Aquifer (minor aquifer)

Note: Users may refer to the most recent State Water Plan to obtain general information pertaining to the state's aquifers. The State Water Plan is available on TWDB's webpage at: <https://www.twdb.texas.gov/waterplanning/swp/index.asp>

Obtaining Site-Specific Groundwater Data, 30 TAC 230.8

Answer by checking YES or NO for each of the following questions:

20. ☒ YES ☐ NO Have all known existing, abandoned, and inoperative wells within the proposed subdivision been located, identified, and shown on the plat as required under 30 TAC 230.8(b)?
21. ☒ YES ☐ NO Were the geologic and groundwater resource factors identified under 30 TAC 230.7(b) considered in planning and designing the aquifer test required under 30 TAC 230.8(c)?
22. ☒ YES ☐ NO Have test and observation wells been located, drilled, logged, completed, developed, and shown on the plat as required by 30 TAC 230.8(c)(1) through (4)?
23. ☒ YES ☐ NO Have all reasonable precautions been taken to ensure that contaminants do not reach the subsurface environment and that undesirable groundwater has been confined to the zone(s) of origin (30 TAC 230.8(c)(5))?
24. ☒ YES ☐ NO Has an aquifer test been conducted which meets the requirements of 30 TAC 230.8(c)(1) and (6)?
25. ☐ YES ☒ NO Were existing wells or previous aquifer test data used?
26. ☐ YES ☐ NO If YES to Number 25, did they meet the requirements of 30 TAC 230.8(c)(7)?
27. ☐ YES ☒ NO Were additional observation wells or aquifer testing utilized?

Note: If the anticipated method of water distribution for the proposed subdivision is expansion of an existing public water system (PWS) or a new PWS, site-specific groundwater data shall be developed under the requirements of 30 TAC, Chapter 290, Subchapter D, *Rules and Regulations for Public Water Systems*,

and the applicable information and correspondence developed in meeting those requirements shall be attached to this form pursuant to 30 TAC 230.8(a).

Determination of Groundwater Quality, 30 TAC 230.9

Answer by checking YES or NO for each of the following questions:

28. ☒ YES ☐ NO Have water quality samples been collected as required by 30 TAC 230.9?
29. ☒ YES ☐ NO Has a water quality analysis been performed which meets the requirements of 30 TAC 230.9?

Determination of Groundwater Availability, 30 TAC 230.10

Complete the following by filling in the blanks or answering YES or NO as applicable:

30. ☒ YES ☐ NO Have the aquifer parameters required by 30 TAC 230.10(c) been determined?
31. If YES, provide the aquifer parameters as determined, including units as applicable (check here if a. through h. below are N/A: ☐):
- a. Rate of yield and drawdown: (See attached Table 3)
 - b. Specific capacity: (See attached Table 3 & Appendix E)
 - c. Efficiency of the pumped well: (See attached Table 3 & Appendix F)
 - d. Transmissivity: (See attached Table 3 & Appendix E)
 - e. Coefficient of storage: (See attached Table 3)
 - f. Hydraulic conductivity: (See attached Table 3 & Appendix E)
 - g. Were any recharge or barrier boundaries detected? ☐ YES ☒ NO

If YES, please describe:

- h. Thickness of aquifer(s):

140-325
32. ☒ YES ☐ NO Have time-drawdown determinations been calculated as required under 30 TAC 230.10(d)(1)?
33. ☒ YES ☐ NO Have distance-drawdown determinations been calculated as required under 30 TAC 230.10(d)(2)?

34. ☒ YES ☐ NO Have well interference determinations been made as required under 30 TAC 230.10(d)(3)?
35. ☒ YES ☐ NO Has the anticipated method of water delivery, the annual groundwater demand estimates at full build out, and geologic and groundwater information been taken into account in making these determinations?
36. ☒ YES ☐ NO Has the water quality analysis required under 30 TAC 230.9 been compared to primary and secondary public drinking water standards as required under 30 TAC 230.10(e)?
37. ☐ YES ☒ NO Does the concentration of any analyzed constituent exceed the standards?

If YES, list the constituent(s) and concentration measure(s) that exceed standards:

Groundwater Availability and Usability Statements, 30 TAC 230.11(a) and (b)

Complete the following by filling in the blanks or answering YES/NO as applicable:

38. Drawdown of the aquifer at the pumped well(s) is estimated to be feet over a ten-year period and feet over a 30-year period.
39. Drawdown of the aquifer at the property boundary is estimated to be feet over a ten-year period and feet over a 30-year period.
40. The distance from the pumped well(s) to the outer edges of the cone(s)-of-depression is estimated to be feet over a ten-year period and feet over a 30-year period.
41. The recommended minimum spacing limit between wells is feet with a recommended well yield of gallons per minute per well.
42. Available groundwater is of sufficient quality to meet the intended use of the platted subdivision. ☒ YES ☐ NO
43. The groundwater availability determination does not consider the following conditions (identify any assumptions or uncertainties that are inherent in the groundwater availability determination):

(See Section IV.4)

Certification of Groundwater Availability (30 TAC 230.11(c))

Must be signed by a Texas Licensed Professional Engineer or a Texas Licensed Professional Geoscientist.

44. I, Kaveh Khorzad, a

Texas Licensed Professional Engineer,

Texas Licensed Professional Geoscientist,

license number 1126, based on best professional judgment, current groundwater conditions, and the information developed and presented in this form, certify that adequate groundwater is available from the underlying aquifer(s) to supply the anticipated use of the proposed subdivision.

Signature 

Date 3-6-2026

(affix seal)



Appendix B

Platting Attesting Form



PLAT ATTESTING FORM

Title 30 Texas Administrative Code, Section 230.1(b) and (c)(2)

Name of Proposed Subdivision:

Property Owner's Contact Information

Name: Mike Clinard
Address: 10399 FM 2325, Wimberley, Texas 78676
Phone: 713-208-7171
Email: mike@ranchesat.com

Plat Applicant's Contact Information

Name: Ranches at Round Mountain, LLC
Address: 10399 FM 2325, Wimberley, Texas 78676
Phone: 713-208-7171
Email: mike@ranchesat.com

Required Additional Information:

Has this Plat Attesting Form (TCEQ-20983) and the Certification of Groundwater Availability for Platting Form (TCEQ-20982) been provided to the following? Please check "YES" to verify:

1. Municipal or county authority ☒ YES
2. Executive administrator of the Texas Water Development Board ☒ YES

Please check "YES" or "N/A" to verify:

3. Applicable groundwater conservation district(s) ☒ YES ☐ N/A

Name of GCD(s) - indicate N/A if not applicable: _____
Blanco Pedernales Groundwater Conservation District

Have copies of the information, estimates, data, calculations, determinations, and statements required by 30 TAC Sections 230.8 through 230.11 been provided to the following? Please check "YES" to confirm:

4. Executive administrator of the Texas Water Development Board ☒ YES

Plat Attesting Form

Please check "YES" or "N/A" to verify:

5. Applicable Groundwater Conservation District(s) (GCD) ☒ YES ☐ N/A

Name of GCD(s) - indicate N/A if not applicable: _____

Blanco Pedernales Groundwater Conservation District _____

TWDB Contact Information:

Executive Administrator
Texas Water Development Board
Groundwater Resources Division
P.O. Box 13231
Austin, Texas 78711-3231

Contact and other information for the Texas Water Development Board may be accessed on the following webpage:

- www.twdb.texas.gov

Contact and other information for GCDs within the state may be accessed on the following webpages:

- https://www.twdb.texas.gov/groundwater/conservation_districts/index.asp
- <https://texasgroundwater.org/resources/gcd-index/>

Certification Statement:

"I, Michael Clinard, the Plat Applicant, attest that the Plat Attesting Form (TCEQ-20983), the Certification of Groundwater Availability for Platting Form (TCEQ-20982), and copies of the information, estimates, data, calculations, and determinations required by Title 30, Texas Administrative Code, Chapter 230 have been provided."

Signature Michael Clinard

Digitally signed by Michael Clinard
Date: 2026.03.05 15:11:39 -06'00'

Date 3-5-2026

Appendix C

Geophysical Log



Geophysical Log

Well No. 1



Borehole: CLINARD RM NO.1

Logs: GAMMA,SPR

Water Well Logging & Video Recording Services

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

Project: CLINARD RM NO.1

Date: 08/22/23

Client: APEX DRILLING

County: BLANCO

Location: N 30° 29' 45.0" W 98° 29' 08.0"

State: TX

BOREHOLE DATA

Drilling Contractor: APEX DRILLING

Driller T.D. (ft) : 600'

Elevation: 1269' GPS

Logger T.D. (ft) : 601'

Depth Ref: GL

Date Drilled: NA

BIT RECORD

CASING RECORD

RUN	BIT SIZE (in)	FROM (ft)	TO (ft)	SIZE/WGT/THK	FROM (ft)	TO (ft)
1				4.5" PVC		
2						
3						

Drill Method:

Weight:

Fluid Level (ft) : 543'

Hole Medium:

Mud Type:

Time Since Circ:

Viscosity:

Rm:

at:

Deg F

GENERAL DATA

Logged by: COLTON A.

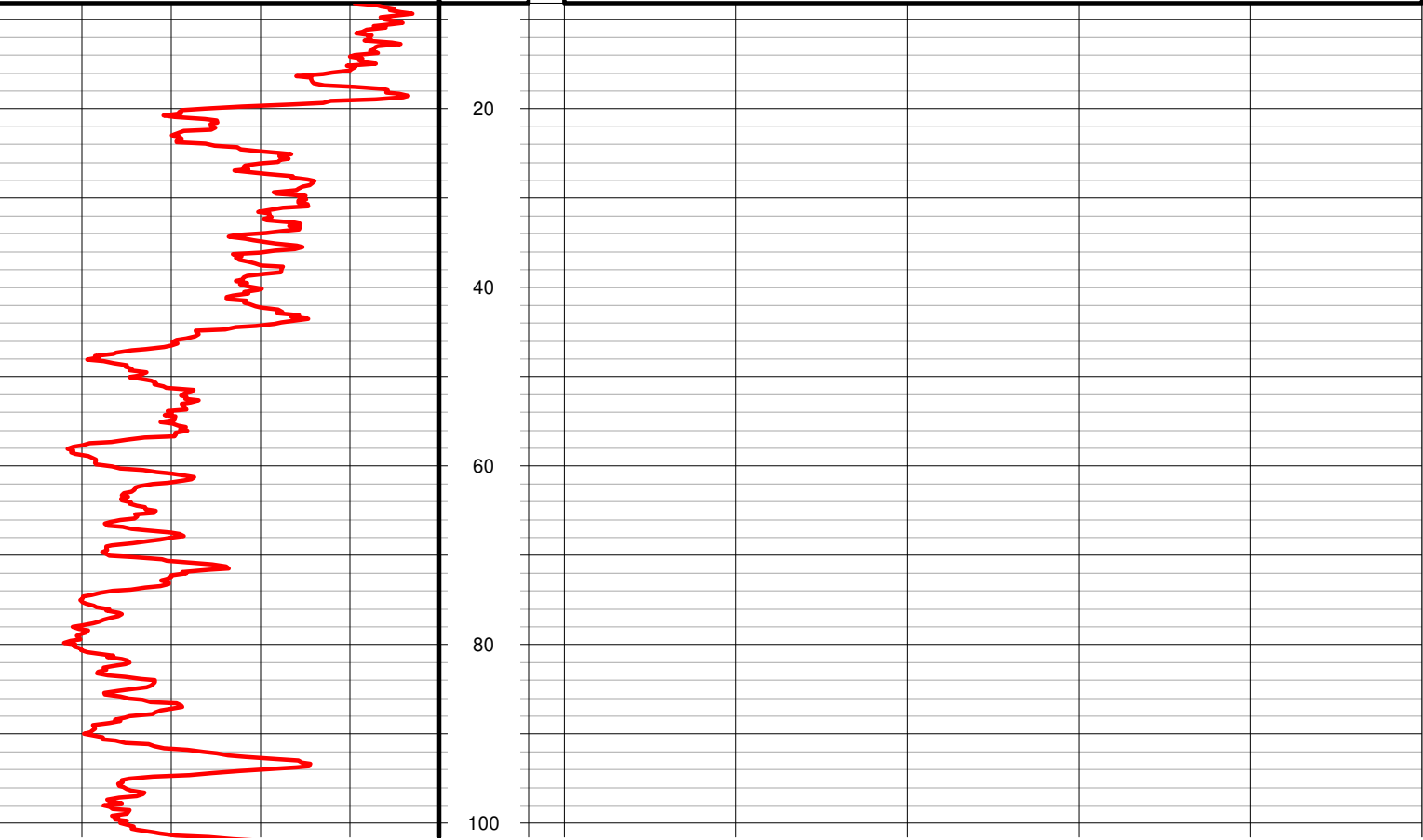
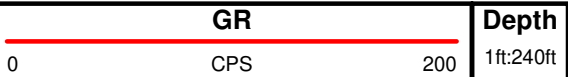
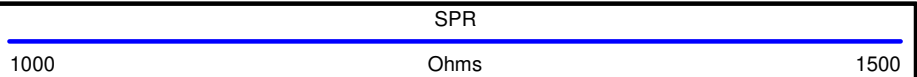
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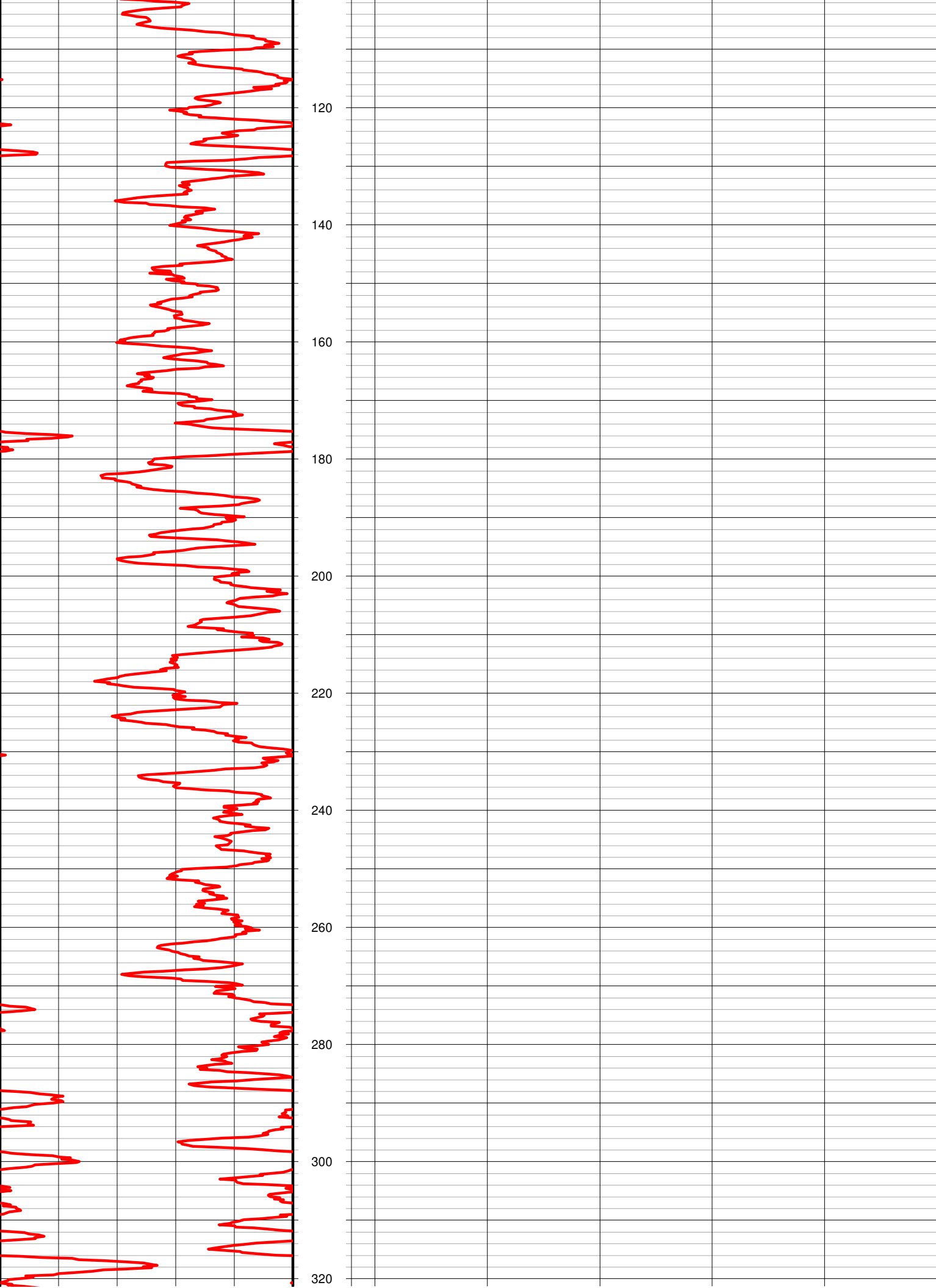
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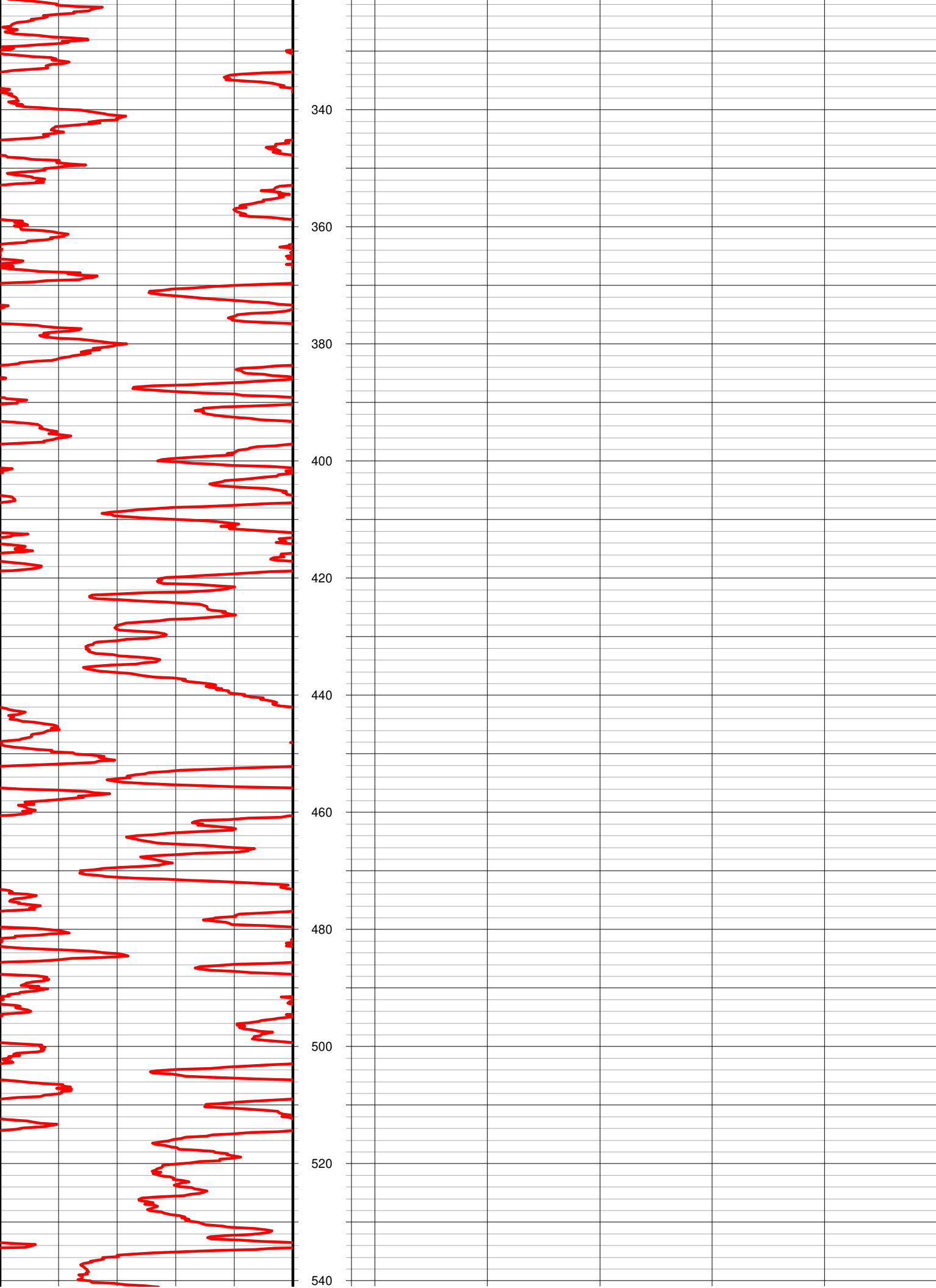
LOG TYPE	RUN NO	SPEED (ft/min)	FROM (ft)	TO (ft)	FT. / IN.
GAMMA	2	35	600.7'	8.2'	20
SPR	1	35	543.1'	599.5'	20

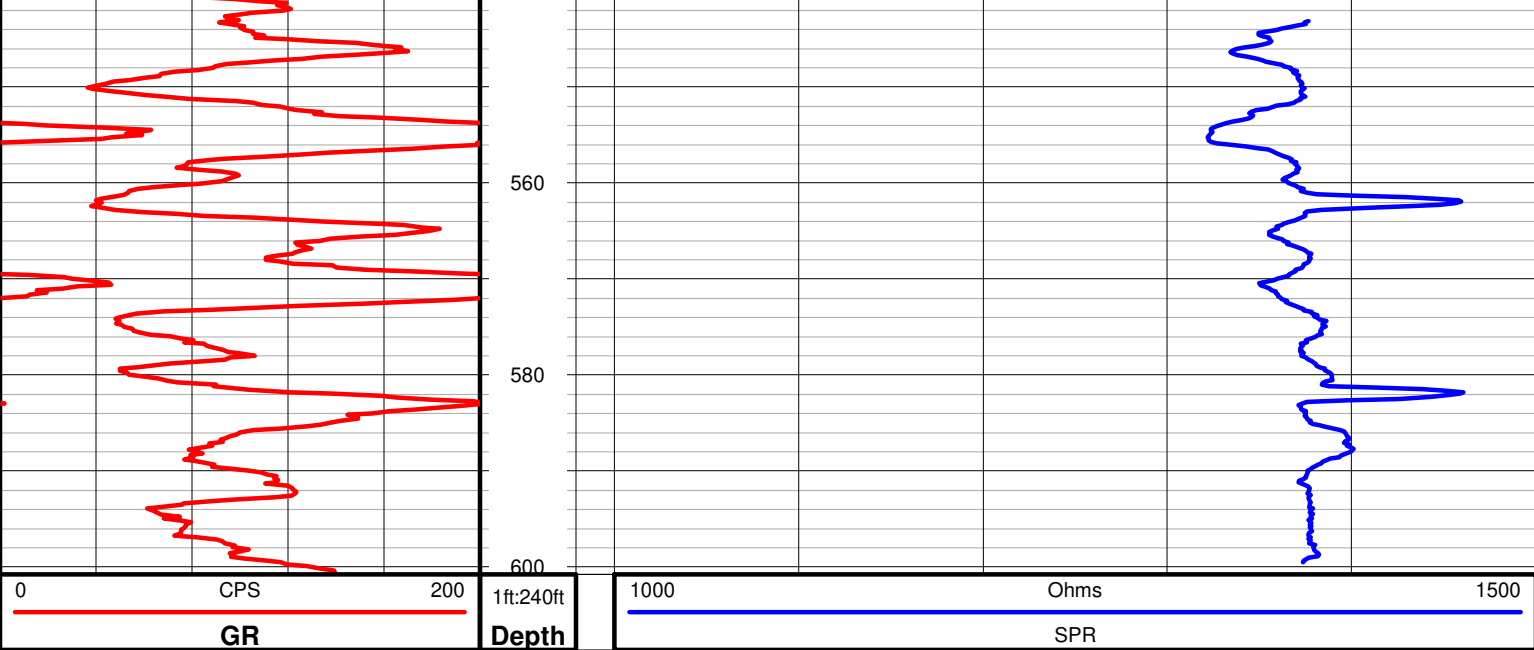
Tool Serial No.

Comments: ALL MEASUREMENTS WERE TAKEN FROM GROUND LEVEL.









Geophysical Log
Well No. 5



Borehole: CLINARD RM NO.5

Logs: GAMMA,SPR

Water Well Logging & Video Recording Services

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

Project: CLINARD RM NO.5 Date: 08/22/23

Client: APEX DRILLING County: BLANCO

Location: N 30° 29' 14.53" W 98° 29' 06.98" State: TX

BOREHOLE DATA

Drilling Contractor: APEX DRILLING Driller T.D. (ft) : 780'

Elevation: 1418' GPS Logger T.D. (ft) : 781'

Depth Ref: GL Date Drilled: NA

BIT RECORD				CASING RECORD		
RUN	BIT SIZE (in)	FROM (ft)	TO (ft)	SIZE/WGT/THK	FROM (ft)	TO (ft)
1				4.5" PVC	1.8' AGL	
2						
3						

Drill Method: Weight: Fluid Level (ft) : 723'

Hole Medium: Mud Type: Time Since Circ:

Viscosity: Rm: at: Deg F

GENERAL DATA

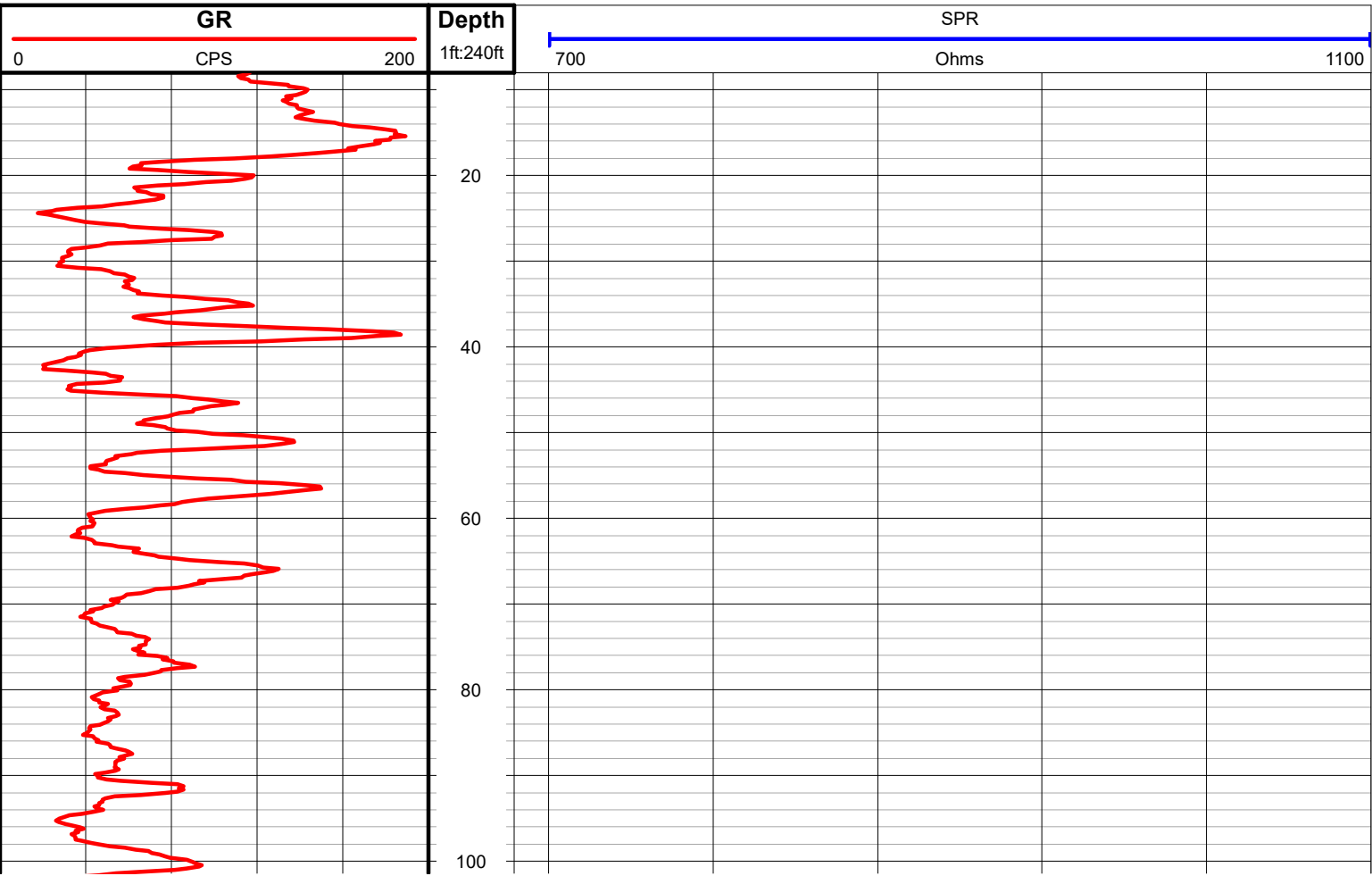
Logged by: COLTON A. Unit/Truck: 11

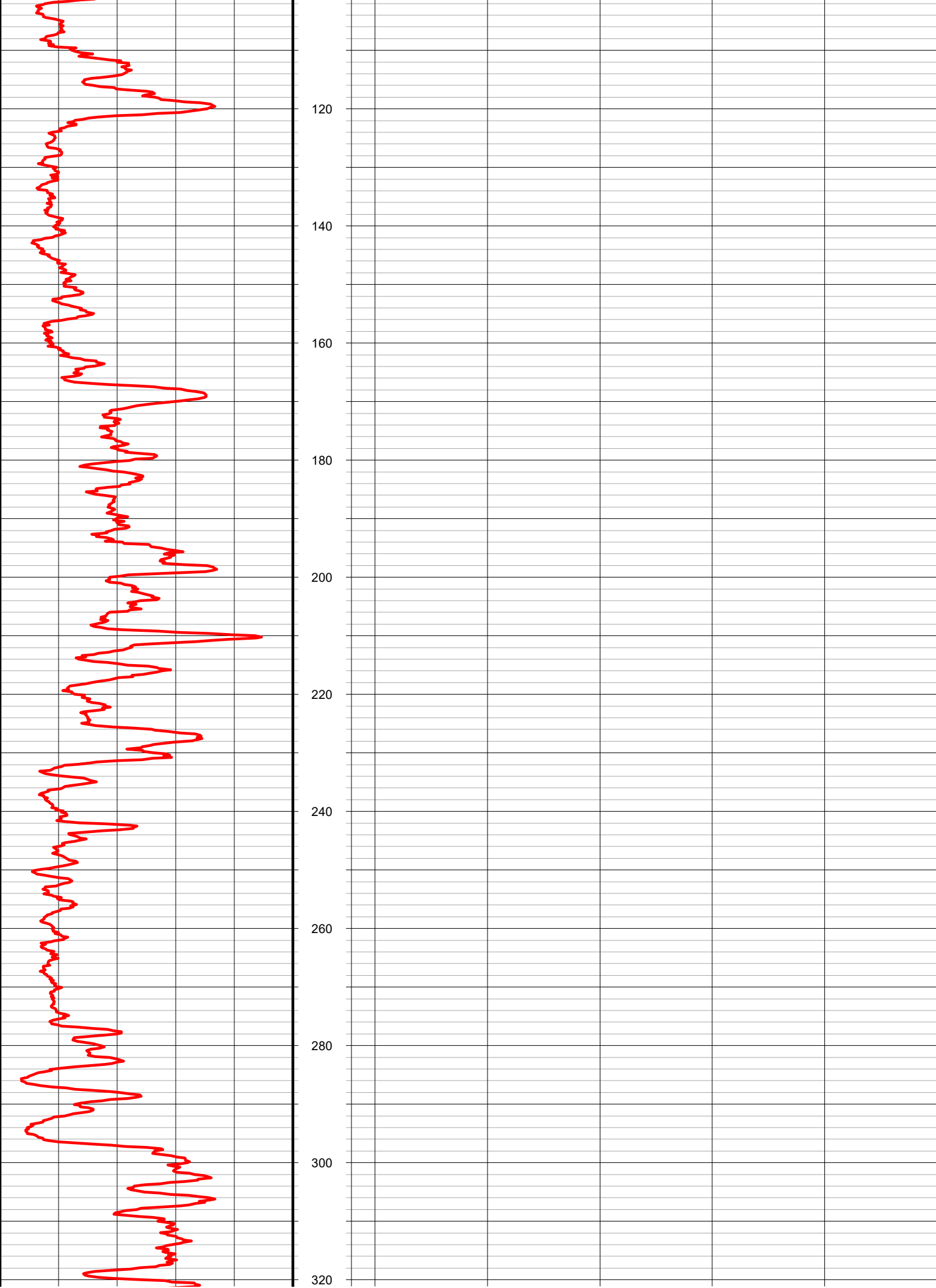
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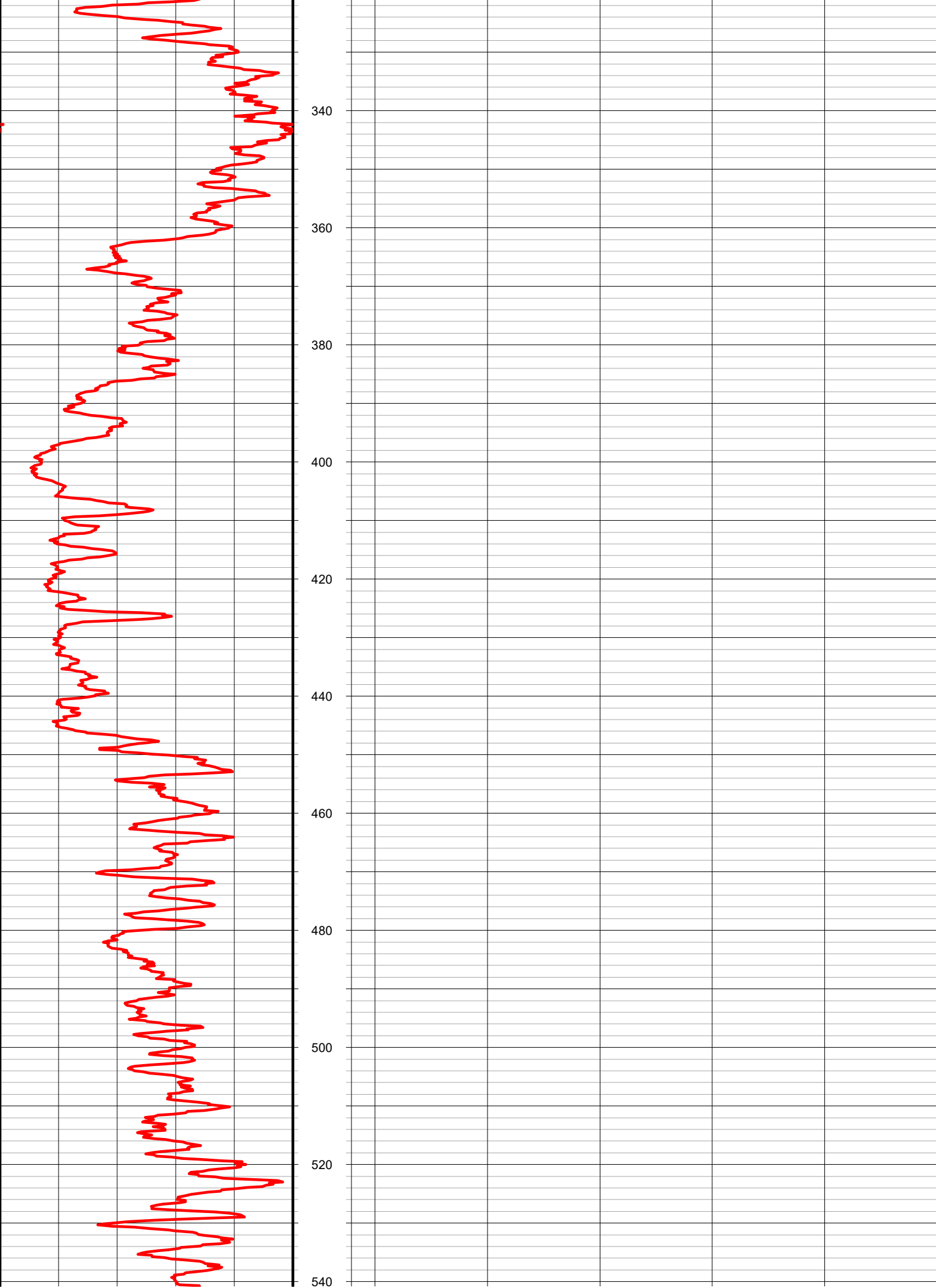
LOG TYPE	RUN NO	SPEED (ft/min)	FROM (ft)	TO (ft)	FT / IN.
GAMMA	2	35	780.4'	8.0'	20
SPR	1	35	723.0'	779.0'	20

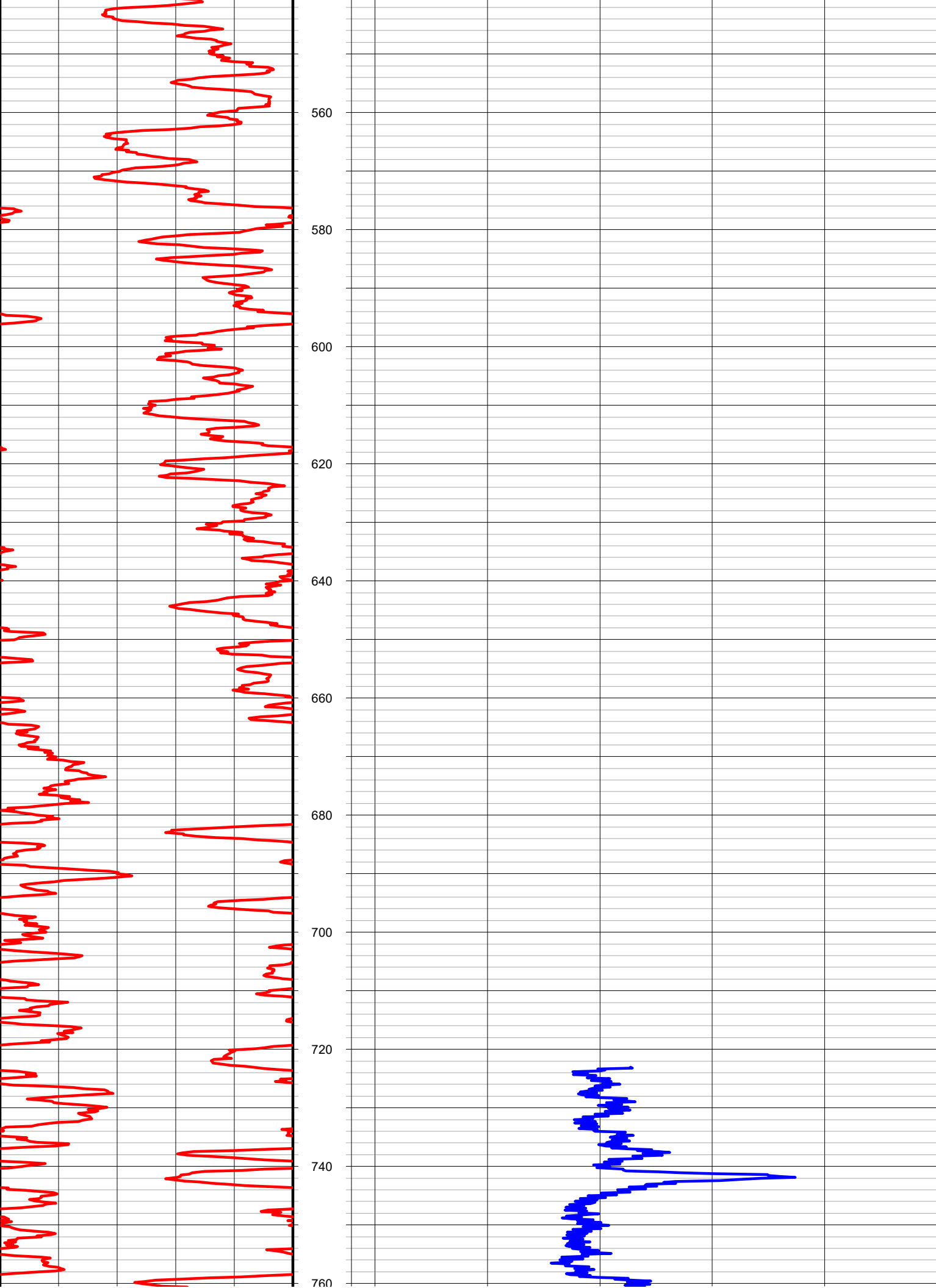
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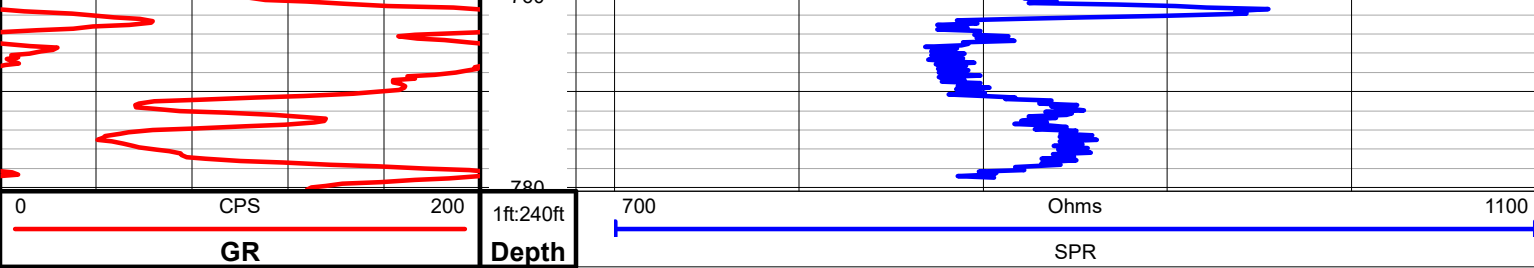
Comments: ALL MEASUREMENTS WERE TAKEN FROM GROUND LEVEL.











Geophysical Log
Well No. 7



Borehole: CLINARD RM NO.7

Logs: GAMMA,SPR

Water Well Logging & Video Recording Services

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

Project: CLINARD RM NO.7 Date: 08/22/23

Client: APEX DRILLING County: BLANCO

Location: N 30° 29' 21.6" W 98° 29' 25.0" State: TX

BOREHOLE DATA

Drilling Contractor: APEX DRILLING Driller T.D. (ft) : 760'

Elevation: 1386' GPS Logger T.D. (ft) : 761'

Depth Ref: GL Date Drilled: NA

BIT RECORD				CASING RECORD		
RUN	BIT SIZE (in)	FROM (ft)	TO (ft)	SIZE/WGT/THK	FROM (ft)	TO (ft)
1				4.5" PVC		
2						
3						

Drill Method: Weight: Fluid Level (ft) : 704'

Hole Medium: Mud Type: Time Since Circ:

Viscosity: Rm: at: Deg F

GENERAL DATA

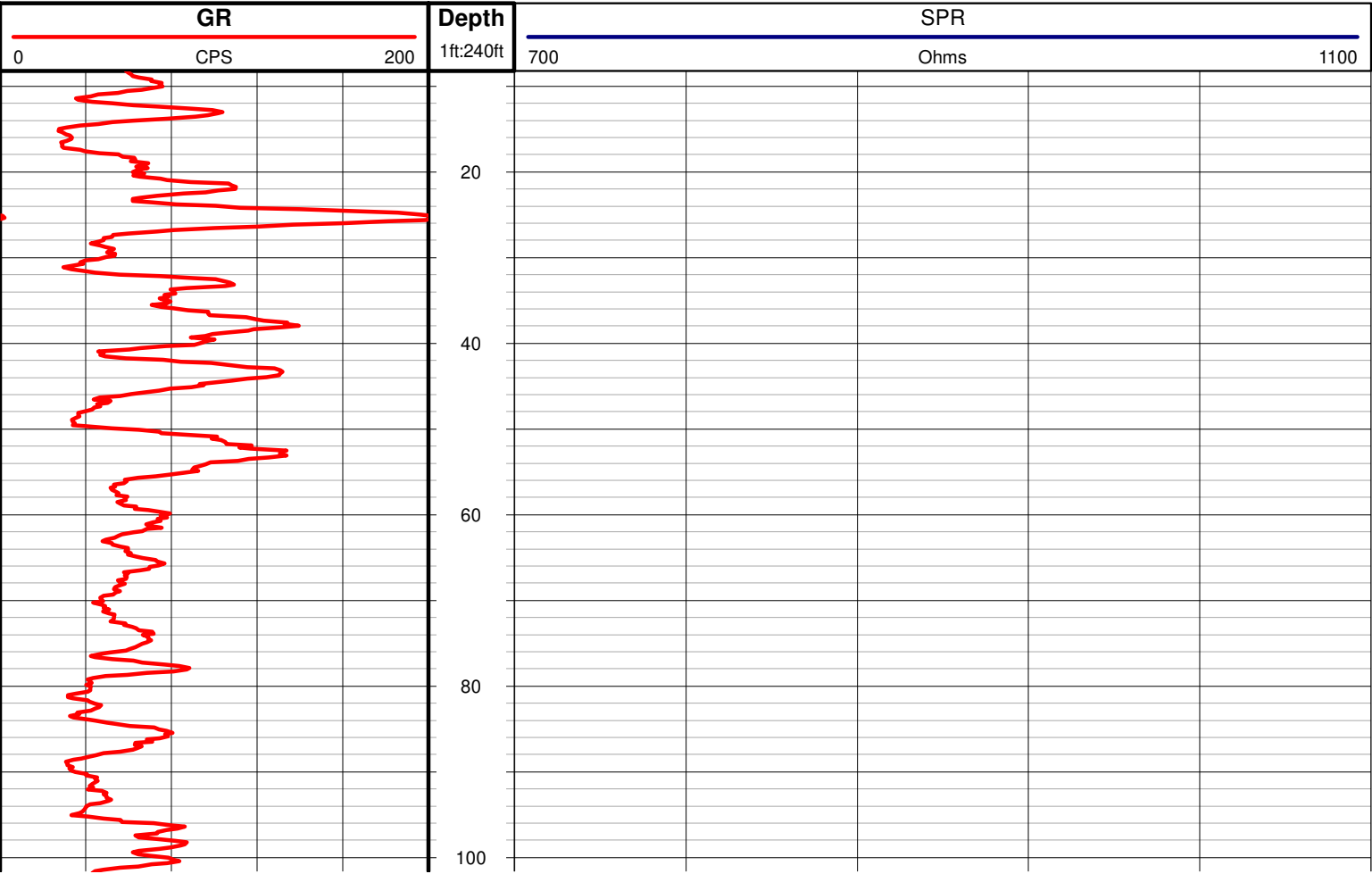
Logged by: COLTON A. Unit/Truck: 11

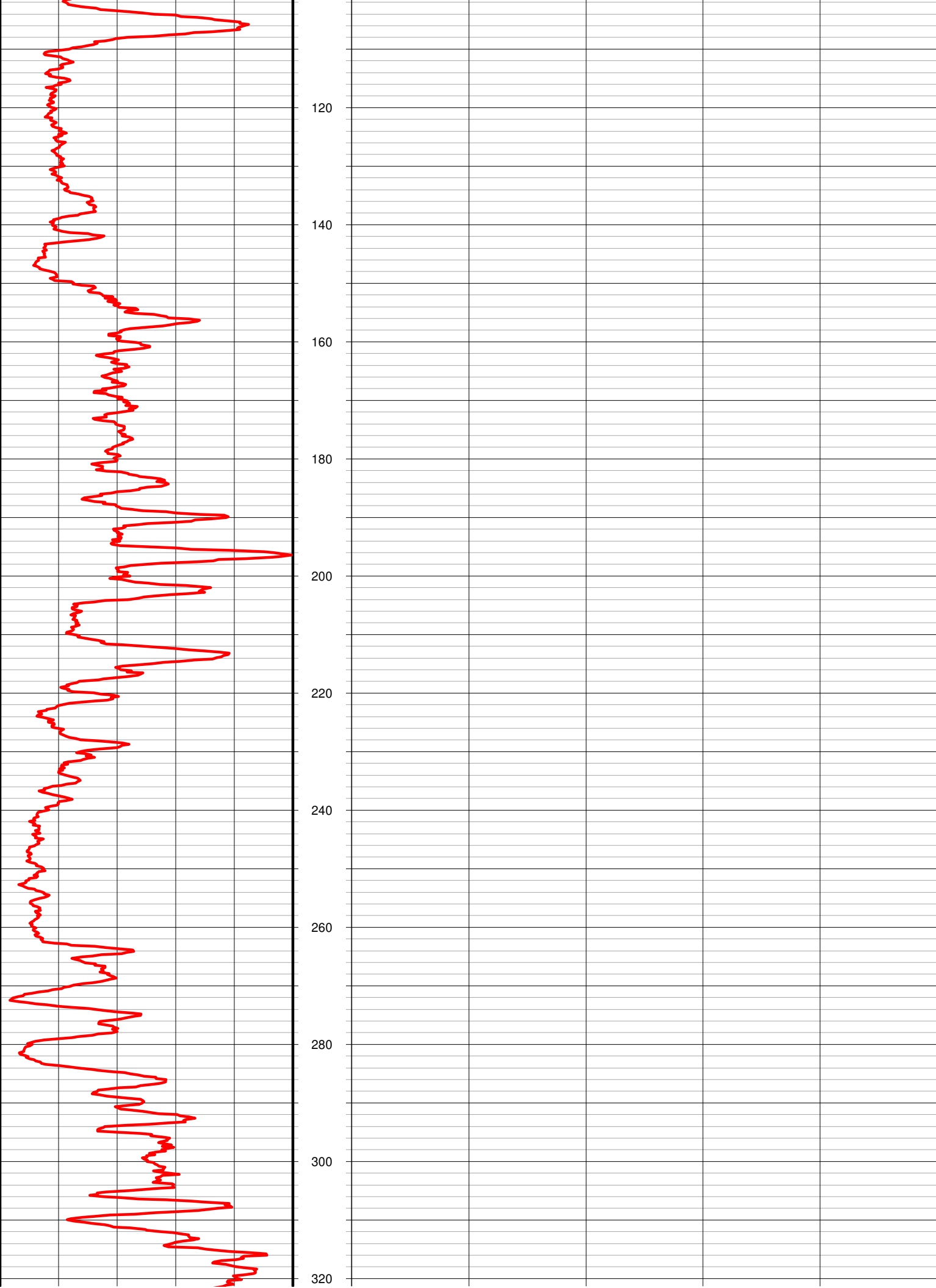
Witness:

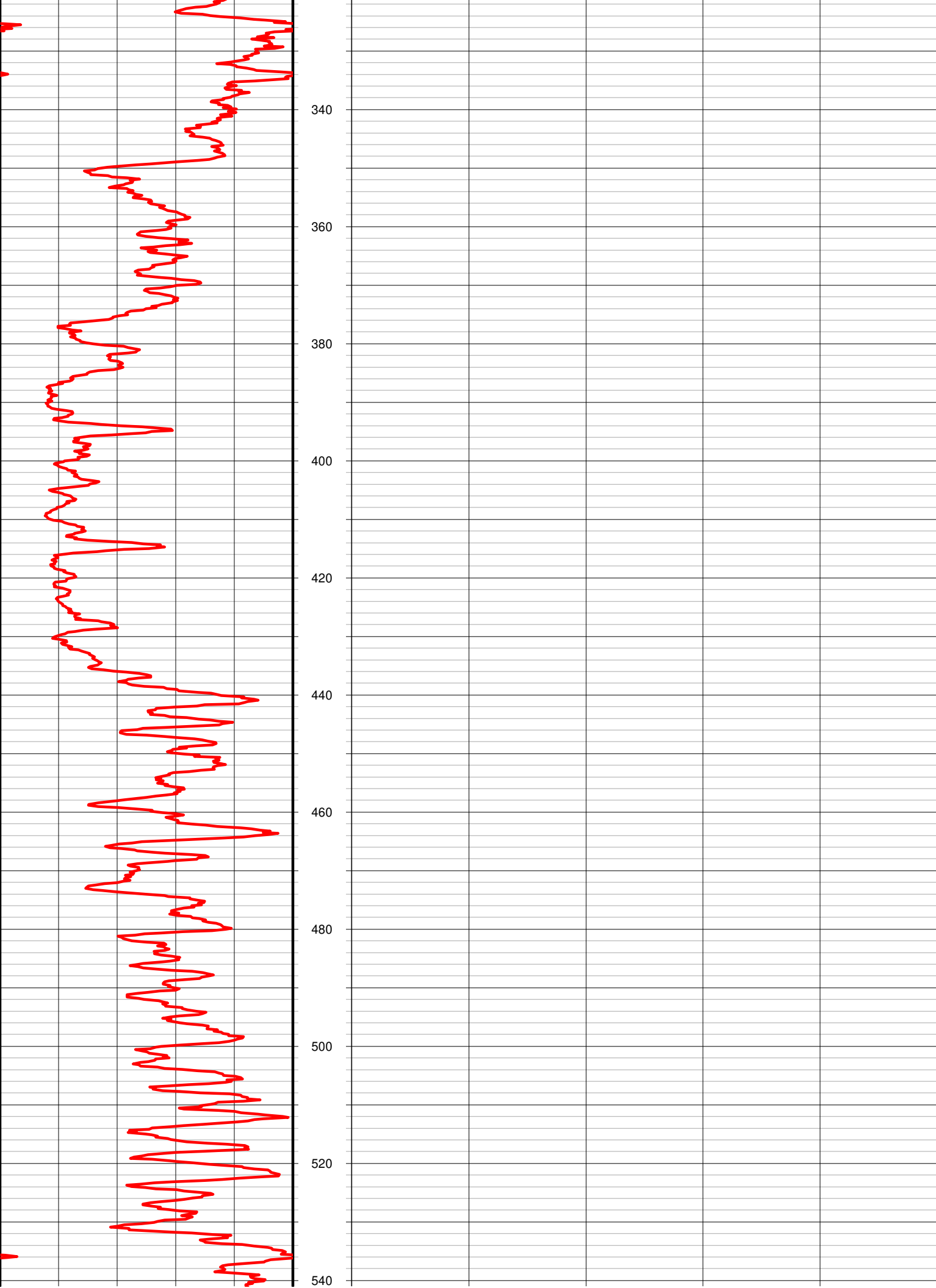
LOG TYPE	RUN NO	SPEED (ft/min)	FROM (ft)	TO (ft)	FT./IN.
GAMMA	2	35	760.6'	8.2'	20
SPR	1	35	704.0'	759.4'	20

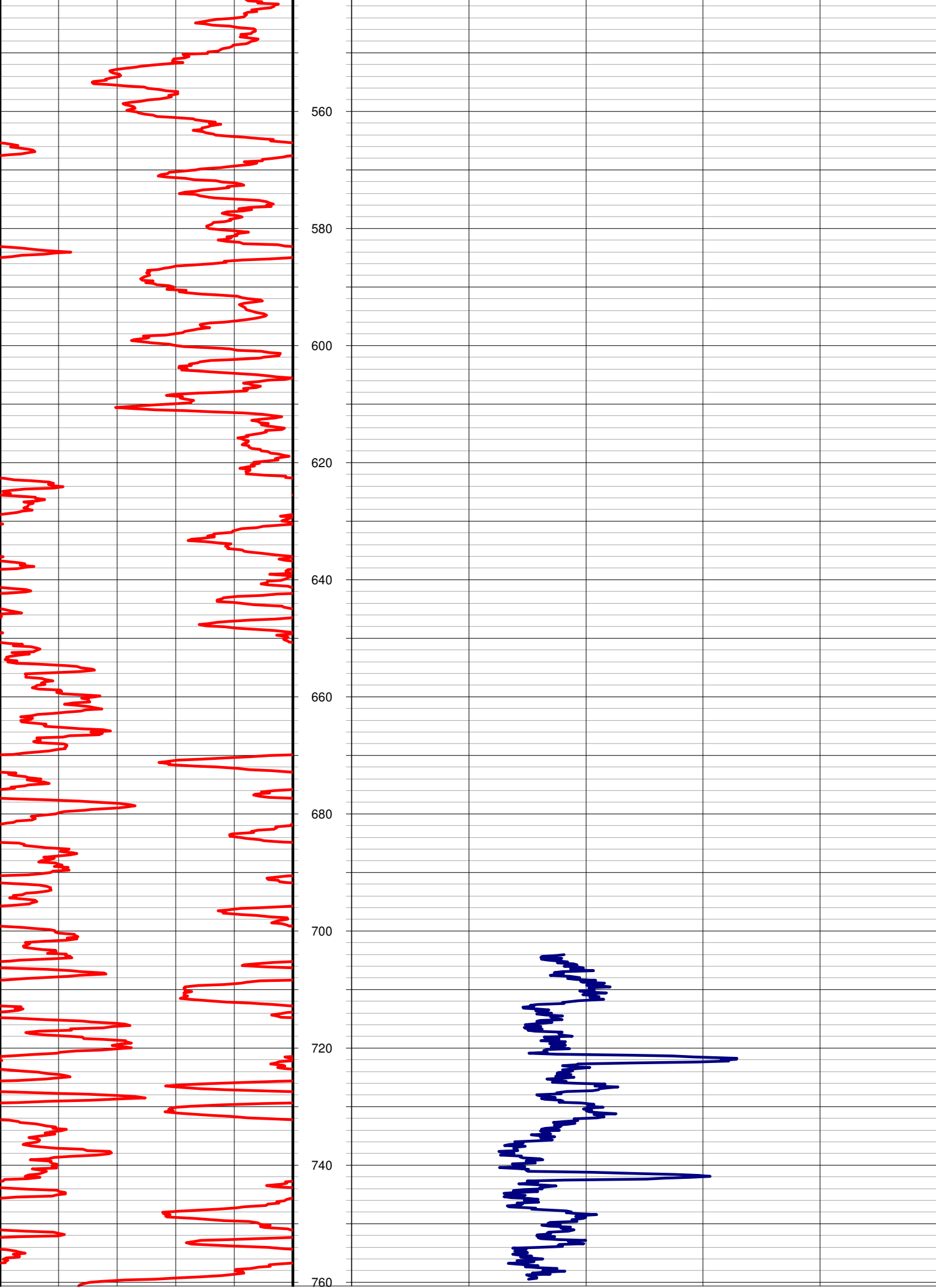
Tool Serial No.

Comments: ALL MEASUREMENTS WERE TAKEN FROM GROUND LEVEL.









0	CPS	200	1ft:240ft	700	Ohms	1100
GR			Depth	SPR		

Appendix D

State Well Reports



Well Report

Well No. 1

STATE OF TEXAS WELL REPORT for Tracking #641879

Owner:	Clinard Holdings	Owner Well #:	1
Address:	10399 FM 2325 Wimberley , TX 78676	Grid #:	57-37-1
Well Location:	Ranches at Round Mountain Round Mountain, TX 78636	Latitude:	30° 29' 45" N
Well County:	Blanco	Longitude:	098° 29' 08" W
		Elevation:	No Data
Type of Work:	New Well	Proposed Use:	Domestic

Drilling Start Date: **6/19/2023** Drilling End Date: **6/19/2023**

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	8.5	0	50
	6.25	50	600

Drilling Method: **Air Hammer**

Borehole Completion: **Straight Wall**

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	50	2 Benseal 7 Portland 9 Bags/Sacks

Seal Method: **Slurry**

Sealed By: **Driller**

Distance to Property Line (ft.): **50+**

Distance to Septic Field or other
concentrated contamination (ft.): **100+**

Distance to Septic Tank (ft.): **50+**

Method of Verification: **Land Owner**

Surface Completion: **Surface Sleeve Installed**

Surface Completion by Driller

Water Level: **No Data**

Packers: **Burlap/Neoprene at 50 ft.
Burlap/Neoprene at 55 ft.
Burlap/Neoprene at 210 ft.
Burlap/Neoprene at 220 ft.**

Type of Pump: **No Data**

Well Tests: **Jetted** **Yield: 60 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
220 - 585	Hickory

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: **Apex Drilling, Inc.**
P.O. Box 867
Marble Falls, TX 78654

Driller Name: **Andrew Jackson Johnson**

License Number: **54989**

Comments: **PI - 6430**

BPGCD # 20230075

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	Top Soil
1	3	Tan LS
3	56	Gray Tan LS
56	220	Grey Red Tan LS
220	285	Tan Red SS
285	420	Gray Green SS
420	422	Red SS
422	535	White Gray SS
535	585	Tan White Sand
585	600	Lt Pink Granite

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	0	540
4.5	Screen	New Plastic (PVC)	.035	540	600

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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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

Well Report
Well No. 2

STATE OF TEXAS WELL REPORT for Tracking #642525

Owner:	Clinard Holdings	Owner Well #:	2
Address:	10399 FM 2325 Wimberley, TX 78676	Grid #:	57-37-1
Well Location:	Ranches at Round Mountain Round Mountain, TX 78636	Latitude:	30° 29' 44.76" N
Well County:	Blanco	Longitude:	098° 29' 05.05" W
Number of Wells Drilled:	2	Elevation:	No Data

Type of Work:	New Well	Proposed Use:	Domestic
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Drilling Start Date: **6/21/2023** Drilling End Date: **6/22/2023**

Borehole:	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
	8.5	0	50
	6.25	50	600

Drilling Method: **Air Hammer**

Borehole Completion: **Straight Wall**

Annular Seal Data:	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
	0	50	3 Benseal 4 Portland 7 Bags/Sacks

Seal Method: **Slurry**

Sealed By: **Driller**

Distance to Property Line (ft.): **50+**

Distance to Septic Field or other
concentrated contamination (ft.): **100+**

Distance to Septic Tank (ft.): **50+**

Method of Verification: **Land Owner**

Surface Completion:	Surface Sleeve Installed	Surface Completion by Driller
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Water Level: **No Data**

Packers: **Burlap/Neoprene at 50 ft.
Burlap/Neoprene at 55 ft.
Burlap/Neoprene at 475 ft.
Burlap/Neoprene at 480 ft.**

Type of Pump: **No Data**

Well Tests: **Jetted** **Yield: 60 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
480 - 600	Hickory

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: **Apex Drilling, Inc.**
P.O. Box 867
Marble Falls, TX 78654

Driller Name: **Andrew Jackson Johnson**

License Number: **54989**

Comments: **BPGCD # 20230076**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	1	Top Soil
1	3	Tan LS
3	70	Gray Tan LS
70	92	Tan White LS
92	285	Tan Red SS
285	420	Gray Green SS
420	528	Gray Tan Red SS
528	595	White Tan Sand
595	600	Red Granite

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	2	540
4.5	Screen	New Plastic (PVC)	.035	540	600

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

Well Report
Well No. 3

STATE OF TEXAS WELL REPORT for Tracking #642528

Owner:	Clinard Holdings	Owner Well #:	3
Address:	10399 FM 2325 Wimberley, TX 78676	Grid #:	57-37-1
Well Location:	Ranches at Round Mountain Round Mountain, TX 78636	Latitude:	30° 29' 14.69" N
Well County:	Blanco	Longitude:	098° 29' 10.7" W
Number of Wells Drilled:	3	Elevation:	No Data

Type of Work:	New Well	Proposed Use:	Domestic
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Drilling Start Date: **6/23/2023** Drilling End Date: **6/27/2023**

Borehole:	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
	8.5	0	50
	6.25	50	800

Drilling Method: **Air Hammer**

Borehole Completion: **Straight Wall**

Annular Seal Data:	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
	0	50	3 Benseal 4 Portland 7 Bags/Sacks

Seal Method: **Slurry**

Sealed By: **Driller**

Distance to Property Line (ft.): **50+**

Distance to Septic Field or other
concentrated contamination (ft.): **100+**

Distance to Septic Tank (ft.): **50+**

Method of Verification: **Land Owner**

Surface Completion:	Surface Sleeve Installed	Surface Completion by Driller
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Water Level: **No Data**

Packers: **Burlap/Neoprene at 50 ft.
Burlap/Neoprene at 55 ft.
Burlap/Neoprene at 410 ft.
Burlap/Neoprene at 420 ft.**

Type of Pump: **No Data**

Well Tests: **Jetted** **Yield: 25 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
420 - 800	Hickory

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: **Apex Drilling, Inc.**
P.O. Box 867
Marble Falls, TX 78654

Driller Name: **Andrew Jackson Johnson** License Number: **54989**

Comments: **BPGCD # 20230077**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	1	Top Soil
1	19	Tan Gray Green Chert
19	135	Gray Green Tan LS
135	174	Red Tan LS
174	227	Red Gray SS
227	420	Gray Green Tan LS
420	460	Red SS
460	780	Gray Green Tan LS
780	800	White SS

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	2	740
4.5	Screen	New Plastic (PVC)	.035	740	800

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P.O. Box 12157
Austin, TX 78711
(512) 334-5540

Well Report
Well No. 4

STATE OF TEXAS WELL REPORT for Tracking #644136

Owner:	Clinard Holdings	Owner Well #:	4
Address:	10399 FM 2325 Wimberley, TX 78676	Grid #:	57-37-1
Well Location:	Ranches at Round Mountain Round Mountain, TX 78636	Latitude:	30° 29' 17.07" N
Well County:	Blanco	Longitude:	098° 29' 09.73" W
Number of Wells Drilled:	4	Elevation:	No Data

Type of Work:	New Well	Proposed Use:	Domestic
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Drilling Start Date: **6/28/2023** Drilling End Date: **6/28/2023**

Borehole:	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
	8.5	0	50
	6.25	50	800

Drilling Method: **Air Hammer**

Borehole Completion: **Straight Wall**

Annular Seal Data:	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
	0	50	3 Benseal 4 Portland 7 Bags/Sacks

Seal Method: **Slurry**

Sealed By: **Driller**

Distance to Property Line (ft.): **50+**

Distance to Septic Field or other
concentrated contamination (ft.): **100+**

Distance to Septic Tank (ft.): **50+**

Method of Verification: **Land Owner**

Surface Completion:	Surface Sleeve Installed	Surface Completion by Driller
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Water Level: **No Data**

Packers: **Burlap/Neoprene at 50 ft.
Burlap/Neoprene at 55 ft.
Burlap/Neoprene at 400 ft.
Burlap/Neoprene at 410 ft.**

Type of Pump: **No Data**

Well Tests: **Jetted** **Yield: 60 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
410 - 800	Hickory

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: **Apex Drilling, Inc.**
P.O. Box 867
Marble Falls, TX 78654

Driller Name: **Andrew Jackson Johnson**

License Number: **54989**

Comments: **BPGCD -20230078**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	1	Top Soil
1	9	Tan Gray LS w/ Clay
9	120	Gray Green Tan LS
120	140	Tan Red LS
140	195	Tan Red SS
195	395	Gray Green Tan LS
395	410	Red Tan LS
410	470	Red SS
470	775	Gray Green Tan LS
775	800	White Sand

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	2	740
4.5	Screen	New Plastic (PVC)	.035	740	800

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

Well Report
Well No. 5

STATE OF TEXAS WELL REPORT for Tracking #644137

Owner:	Clinard Holdings	Owner Well #:	5
Address:	10399 FM 2325 Wimberley, TX 78676	Grid #:	57-37-1
Well Location:	Ranches at Round Mountain Round Mountain, TX 78636	Latitude:	30° 29' 14.53" N
Well County:	Blanco	Longitude:	098° 29' 06.98" W
Number of Wells Drilled:	5	Elevation:	No Data

Type of Work:	New Well	Proposed Use:	Domestic
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Drilling Start Date: **6/30/2023** Drilling End Date: **7/5/2023**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	8.5	0	50
	6.5	50	780

Drilling Method: **Air Hammer**

Borehole Completion: **Straight Wall**

Annular Seal Data: **No Data**

Seal Method: **Slurry**

Sealed By: **Driller**

Distance to Property Line (ft.): **50+**

Distance to Septic Field or other
concentrated contamination (ft.): **100+**

Distance to Septic Tank (ft.): **50+**

Method of Verification: **Land Owner**

Surface Completion:	Surface Sleeve Installed	Surface Completion by Driller
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Water Level: **No Data**

Packers: **Burlap/Neoprene at 50 ft.
Burlap/Neoprene at 55 ft.
Burlap/Neoprene at 220 ft.
Burlap/Neoprene at 230 ft.
Burlap/Neoprene at 400 ft.**

Type of Pump: **No Data**

Well Tests: **Jetted** **Yield: 60+ GPM**

Water Quality:

Strata Depth (ft.)	Water Type
410 - 800	Hickory

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: **Apex Drilling, Inc.**
P.O. Box 867
Marble Falls, TX 78654

Driller Name: **Andrew Jackson Johnson** License Number: **54989**

Comments: **BPGCD # 20230079**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	1	Top Soil
1	10	Tan Gray LS w/ Clay
10	110	Gray Green LS
110	180	Tan Red LS w/ Sand
180	200	Gray Green SS
200	200	Lost Returns
200	780	Total Depth

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	2	720
4.5	Screen	New Plastic (PVC)	.035	720	780

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Well Report

Well No. 6

STATE OF TEXAS WELL REPORT for Tracking #644138

Owner:	Clinard Holdings	Owner Well #:	6
Address:	10399 FM 2325 Wimberley, TX 78676	Grid #:	57-37-1
Well Location:	Ranches at Round Mountain Round Mountain, TX 78636	Latitude:	30° 29' 19.02" N
Well County:	Blanco	Longitude:	098° 29' 26.55" W
Number of Wells Drilled:	6	Elevation:	No Data

Type of Work:	New Well	Proposed Use:	Domestic
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Drilling Start Date: **7/5/2023** Drilling End Date: **7/7/2023**

Borehole:	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
	8.5	0	50
	6.25	50	760

Drilling Method: **Air Hammer**

Borehole Completion: **Straight Wall**

Annular Seal Data:	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
	0	50	3 Benseal 4 Portland 7 Bags/Sacks

Seal Method: **Slurry**

Sealed By: **Driller**

Distance to Property Line (ft.): **50+**

Distance to Septic Field or other
concentrated contamination (ft.): **100+**

Distance to Septic Tank (ft.): **50+**

Method of Verification: **Land Owner**

Surface Completion:	Surface Sleeve Installed	Surface Completion by Driller
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Water Level: **No Data**

Packers: **Burlap/Neoprene at 50 ft.
Burlap/Neoprene at 55 ft.
Burlap/Neoprene at 380 ft.
Burlap/Neoprene at 390 ft.**

Type of Pump: **No Data**

Well Tests: **Jetted** **Yield: 25 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
392 - 760	Hickory

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: **Apex Drilling, Inc.**
P.O. Box 867
Marble Falls, TX 78654

Driller Name: **Andrew Jackson Johnson** License Number: **54989**

Comments: **BPGCD # 20230080**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	1	Top Soil
1	10	Tan Gray LS w/ Clay
10	120	Gray Green Tan LS
120	125	Tan Red LS
125	240	Red Gray SS
240	392	Gray Green Tan LS
392	760	Gray Green Red SS

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	2	700
4.5	Screen	New Plastic (PVC)	.035	700	760

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P.O. Box 12157
Austin, TX 78711
(512) 334-5540

Well Report

Well No. 7

STATE OF TEXAS WELL REPORT for Tracking #644139

Owner:	Clinard Holdings	Owner Well #:	7
Address:	10399 FM 2325 Wimberley, TX 78636	Grid #:	57-37-1
Well Location:	Ranches at Round Mountain Round Mountain, TX 78636	Latitude:	30° 29' 21.52" N
Well County:	Blanco	Longitude:	098° 29' 25" W
Number of Wells Drilled:	7	Elevation:	No Data

Type of Work:	New Well	Proposed Use:	Domestic
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Drilling Start Date: **7/10/2023** Drilling End Date: **7/14/2023**

Borehole:	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
	8.5	0	50
	6.25	50	760

Drilling Method: **Air Hammer**

Borehole Completion: **Straight Wall**

Annular Seal Data:	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
	0	50	4 Benseal 4 Portland 8 Bags/Sacks

Seal Method: **Slurry**

Sealed By: **Driller**

Distance to Property Line (ft.): **50+**

Distance to Septic Field or other
concentrated contamination (ft.): **100+**

Distance to Septic Tank (ft.): **50+**

Method of Verification: **Land Owner**

Surface Completion:	Surface Sleeve Installed	Surface Completion by Driller
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Water Level: **No Data**

Packers: **Burlap/Neoprene at 50 ft.
Burlap/Neoprene at 55 ft.
Burlap/Neoprene at 380 ft.
Burlap/Neoprene at 390 ft.**

Type of Pump: **No Data**

Well Tests: **Jetted** **Yield: 25 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
390 - 760	Hickory

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: **Apex Drilling, Inc.**

**P.O. Box 867
Marble Falls, TX 78654**

Driller Name: **Andrew Jackson Johnson**

License Number: **54989**

Comments: **BPGCD # 20230081**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	1	Top Soil
1	8	Tan Gray LS w/ Clay
8	100	Gray Green Tan LS
100	112	Tan Red LS
112	225	Red Gray SS
225	390	Gray Green Tan LS
390	740	Gray Red SS
740	760	Gray White Sand

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	2	700
4.5	Screen	New Plastic (PVC)	.035	700	760

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**Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540**

Well Report
Well No. 8

STATE OF TEXAS WELL REPORT for Tracking #644140

Owner:	Clinard Holdings	Owner Well #:	8
Address:	10399 FM 2325 Wimberley, TX 78676	Grid #:	57-37-1
Well Location:	Ranches at Round Mountain Round Mountain, TX 78636	Latitude:	30° 29' 24.66" N
Well County:	Blanco	Longitude:	098° 29' 27.43" W
Number of Wells Drilled:	8	Elevation:	No Data

Type of Work:	New Well	Proposed Use:	Domestic
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Drilling Start Date: **7/17/2023** Drilling End Date: **7/19/2023**

Borehole:	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
	8.5	0	50
	6.25	50	800

Drilling Method: **Air Hammer**

Borehole Completion: **Straight Wall**

Annular Seal Data:	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
	0	50	3 Benseal 4 PORTland 7

Seal Method: **Slurry**

Sealed By: **Driller**

Distance to Property Line (ft.): **50+**

Distance to Septic Field or other
concentrated contamination (ft.): **100+**

Distance to Septic Tank (ft.): **50+**

Method of Verification: **Land Owner**

Surface Completion:	Surface Sleeve Installed	Surface Completion by Driller
---------------------	---------------------------------	--------------------------------------

Water Level: **No Data**

Packers: **Burlap/Neoprene at 50 ft.
Burlap/Neoprene at 55 ft.
Burlap/Neoprene at 320 ft.
Burlap/Neoprene at 330 ft.**

Type of Pump: **No Data**

Well Tests: **Jetted** **Yield: 55 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
330 - 800	Hickory

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: **Apex Drilling, Inc.**
P.O. Box 867
Marble Falls, TX 78654

Driller Name: **Andrew Jackson Johnson** License Number: **54989**

Comments: **BPGCD # 20230082**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	1	Top Soil
1	7	Tan Gray LS w/ Clay
7	81	Gray Green Tan LS
81	180	Tan Red SS
180	320	Gray Tan Green LS
320	715	Gray Red SS
715	740	Gray White SS
740	800	White SS

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	2	740
4.5	Screen	New Plastic (PVC)	.035	740	800

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 E

Aquifer Test Data and Analysis



Aquifer Test

Well No. 1

Ranches at Round Mountain Well No. 1 - Aquifer Test (July 6, 2023)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 1 Temperature (F)	PW Well No. 1 Water Level (ft bgs)	PW Well No. 1 Water Level (ft MSL)	PW Well No. 1 Drawdown (ft)	PW Well No. 1 Pump Rate (gpm)	PW Well No. 1 Specific Capacity (gpm/ft)	Comments	OW Well No. 2 Water Level (ft MSL)	OW Well No. 2 Drawdown (ft)
7/6/23 10:21 AM	0		73.35	152.69	1,111.31	0.00			Pump Start	1,115.26	0.00
7/6/23 10:22 AM	1		73.37	172.20	1,091.80	19.51	28	1.44	Meter: 1,492,583.6 gallons	1,115.32	-0.06
7/6/23 10:23 AM	2		73.35	186.94	1,077.06	34.25	28	0.82		1,115.36	-0.10
7/6/23 10:24 AM	3		73.27	197.90	1,066.10	45.21	28	0.62		1,115.41	-0.15
7/6/23 10:25 AM	4		73.24	206.54	1,057.46	53.85	28	0.52		1,115.30	-0.03
7/6/23 10:26 AM	5		73.18	213.44	1,050.56	60.75	28	0.46		1,115.22	0.04
7/6/23 10:27 AM	6		73.15	218.63	1,045.37	65.94	28	0.42		1,115.26	0.00
7/6/23 10:28 AM	7		73.11	222.91	1,041.09	70.22	28	0.40		1,115.32	-0.06
7/6/23 10:29 AM	8		73.07	226.60	1,037.40	73.91	28	0.38		1,115.27	-0.01
7/6/23 10:30 AM	9		73.10	229.59	1,034.41	76.90	28	0.36		1,115.17	0.09
7/6/23 10:31 AM	10		73.04	232.33	1,031.67	79.64	28	0.35		1,115.16	0.10
7/6/23 10:32 AM	11		73.02	234.40	1,029.60	81.71	28	0.34		1,115.00	0.27
7/6/23 10:33 AM	12		73.00	236.46	1,027.54	83.77	28	0.33		1,114.92	0.34
7/6/23 10:34 AM	13		72.96	238.11	1,025.89	85.42	28	0.33		1,114.93	0.33
7/6/23 10:35 AM	14		72.97	239.76	1,024.24	87.07	28	0.32		1,114.76	0.50
7/6/23 10:36 AM	15		72.95	241.14	1,022.87	88.45	28	0.32	pH: 7.07/ EC: 1.07	1,114.64	0.62
7/6/23 10:41 AM	20		72.94	246.28	1,017.72	93.59	28	0.30	pH: 7.06/ EC: 0.98	1,114.14	1.12
7/6/23 10:46 AM	25		73.01	249.78	1,014.23	97.09	28	0.29	pH: 7.07/ EC: 0.97	1,113.47	1.79
7/6/23 10:51 AM	30		73.01	252.49	1,011.51	99.80	28	0.28	pH: 7.04/ EC: 0.98	1,112.94	2.32
7/6/23 10:56 AM	35		73.01	254.84	1,009.17	102.15	28	0.27	pH: 7.09/ EC: 0.98	1,112.19	3.07
7/6/23 11:01 AM	40		73.04	256.81	1,007.19	104.12	28	0.27	pH: 7.07/ EC: 0.98	1,111.51	3.75
7/6/23 11:06 AM	45		73.02	258.31	1,005.69	105.62	28	0.27	pH: 7.12/ EC: 0.98	1,110.94	4.32
7/6/23 11:21 AM	60		73.08	262.34	1,001.67	109.65	28	0.26	pH: 7.12/ EC: 0.98	1,109.54	5.72
7/6/23 11:36 AM	75		73.16	265.10	998.90	112.41	28	0.25	pH: 7.08/ EC: 0.98	1,108.14	7.13
7/6/23 11:51 AM	90		73.16	267.60	996.40	114.91	28	0.24	pH: 7.09/ EC: 0.97	1,106.93	8.33
7/6/23 12:06 PM	105		73.16	269.19	994.82	116.50	28	0.24	pH: 7.10/ EC: 0.97	1,105.87	9.40
7/6/23 12:21 PM	120		73.18	270.93	993.08	118.24	28	0.24	pH: 7.12/ EC: 0.95	1,104.95	10.32
7/6/23 12:51 PM	150		73.20	273.12	990.89	120.43	28	0.23	pH: 7.08/ EC: 0.94	1,103.29	11.98
7/6/23 1:21 PM	180		73.21	275.04	988.96	122.35	28	0.23	pH: 7.05/ EC: 0.94	1,101.88	13.38
7/6/23 1:51 PM	210		73.20	276.81	987.19	124.12				1,100.58	14.69
7/6/23 2:21 PM	240		73.24	278.44	985.56	125.75				1,099.45	15.81
7/6/23 3:21 PM	300		73.23	281.04	982.96	128.35				1,097.57	17.70
7/6/23 4:21 PM	360		73.26	283.20	980.80	130.51				1,095.96	19.31
7/6/23 5:21 PM	420		73.27	284.93	979.07	132.24				1,094.70	20.57
7/6/23 6:21 PM	480		73.27	286.75	977.25	134.06				1,093.33	21.93

Note: bgs = below ground surface Column Pipe Diameter = 1 1/2 inch Horsepower = 5 HP
MSL = Mean Sea Level Pump Setting = 560 ft EC=Electrical conductivity (mS/cm)

Ranches at Round Mountain Well No. 1 - Aquifer Test (July 6, 2023)

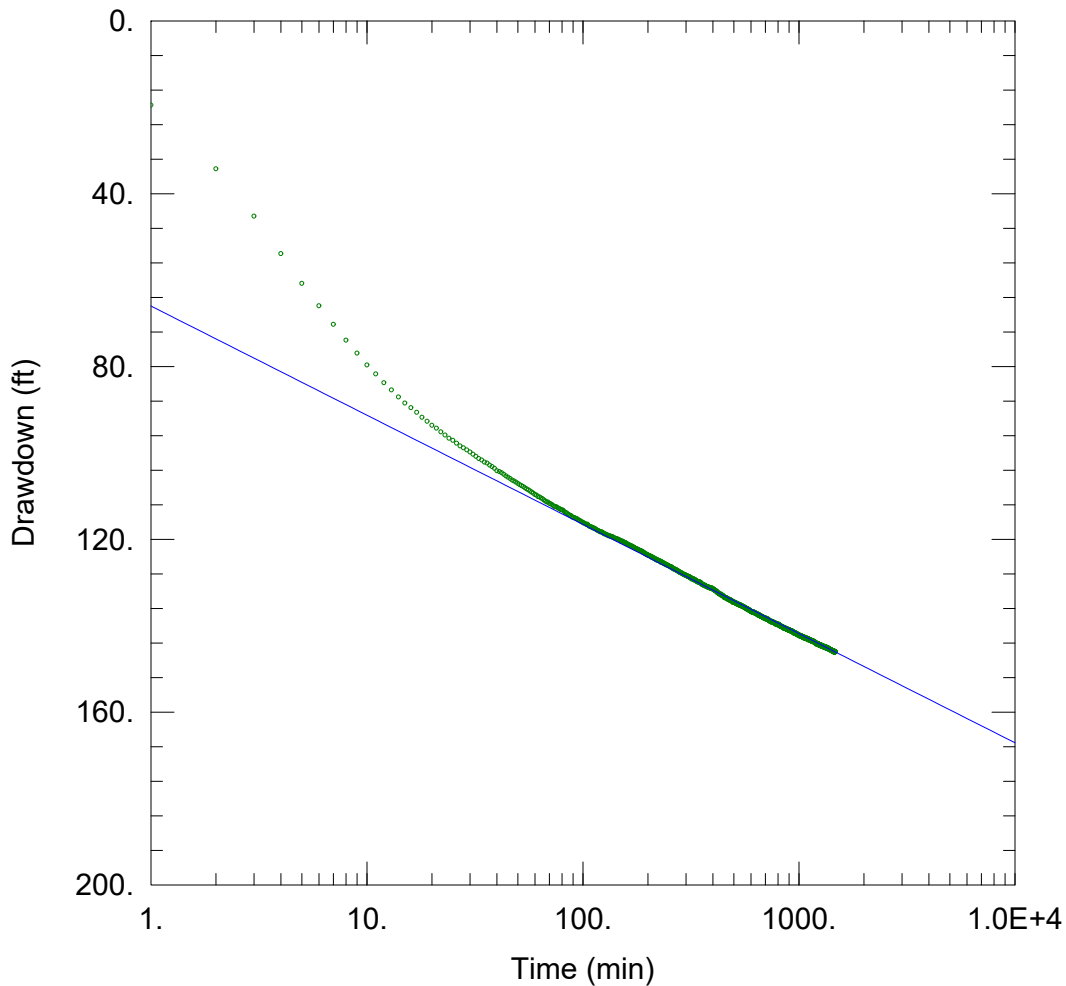
Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 1 Temperature (F)	PW Well No. 1 Water Level (ft bgs)	PW Well No. 1 Water Level (ft MSL)	PW Well No. 1 Drawdown (ft)	PW Well No. 1 Pump Rate (gpm)	PW Well No. 1 Specific Capacity (gpm/ft)	Comments	OW Well No. 2 Water Level (ft MSL)	OW Well No. 2 Drawdown (ft)
7/6/23 7:21 PM	540		73.25	288.00	976.00	135.31				1,092.33	22.93
7/6/23 8:21 PM	600		73.24	289.40	974.60	136.71				1,091.45	23.82
7/6/23 9:21 PM	660		73.25	290.39	973.61	137.70				1,090.48	24.78
7/6/23 10:21 PM	720		73.26	291.27	972.74	138.58				1,089.78	25.48
7/6/23 11:21 PM	780		73.25	292.11	971.89	139.42				1,089.03	26.24
7/7/23 12:21 AM	840		73.24	293.02	970.98	140.33				1,088.36	26.90
7/7/23 1:21 AM	900		73.27	293.74	970.26	141.05				1,087.74	27.52
7/7/23 2:21 AM	960		73.24	294.39	969.61	141.70				1,087.09	28.18
7/7/23 3:21 AM	1,020		73.31	295.12	968.88	142.43				1,086.55	28.72
7/7/23 4:21 AM	1,080		73.23	295.58	968.43	142.89				1,086.01	29.26
7/7/23 5:21 AM	1,140		73.27	296.19	967.81	143.50				1,085.66	29.60
7/7/23 6:21 AM	1,200		73.28	296.84	967.16	144.15				1,085.15	30.12
7/7/23 7:21 AM	1,260		73.26	297.17	966.84	144.48				1,084.76	30.51
7/7/23 8:21 AM	1,320		73.27	297.69	966.31	145.00				1,084.41	30.85
7/7/23 9:21 AM	1,380		73.23	298.00	966.00	145.31				1,084.01	31.25
7/7/23 10:21 AM	1,440		73.26	298.64	965.36	145.95				1,083.68	31.59
7/7/23 10:56 AM	1,475	0	73.25	298.73	965.27	146.04	28	0.19	Pump Stop	1,083.49	31.77
7/7/23 10:57 AM	1,476	1	73.23	290.53	973.47	137.84			Meter: 1,533,715.6 gallons	1,083.43	31.83
7/7/23 10:58 AM	1,477	2	73.52	273.29	990.71	120.60			Avg. Pump Rate: 28	1,083.47	31.79
7/7/23 10:59 AM	1,478	3	73.66	261.00	1,003.00	108.31				1,083.41	31.85
7/7/23 11:00 AM	1,479	4	73.76	251.45	1,012.55	98.76				1,083.44	31.82
7/7/23 11:01 AM	1,480	5	73.75	244.05	1,019.95	91.36				1,083.43	31.84
7/7/23 11:02 AM	1,481	6	73.79	238.17	1,025.84	85.48				1,083.46	31.80
7/7/23 11:03 AM	1,482	7	73.87	233.24	1,030.76	80.55				1,083.44	31.82
7/7/23 11:04 AM	1,483	8	73.90	229.35	1,034.65	76.66				1,083.49	31.78
7/7/23 11:05 AM	1,484	9	73.98	226.09	1,037.92	73.40				1,083.49	31.77
7/7/23 11:06 AM	1,485	10	73.99	223.21	1,040.79	70.52				1,083.52	31.74
7/7/23 11:07 AM	1,486	11	74.08	220.79	1,043.21	68.10				1,083.64	31.62
7/7/23 11:08 AM	1,487	12	74.08	218.78	1,045.22	66.09				1,083.71	31.55
7/7/23 11:09 AM	1,488	13	74.05	216.80	1,047.20	64.11				1,083.73	31.53
7/7/23 11:10 AM	1,489	14	74.05	215.23	1,048.77	62.54				1,083.90	31.36
7/7/23 11:11 AM	1,490	15	74.06	213.87	1,050.13	61.18				1,083.90	31.37
7/7/23 11:16 AM	1,495	20	73.96	208.35	1,055.65	55.66				1,084.53	30.74
7/7/23 11:21 AM	1,500	25	73.94	204.82	1,059.18	52.13				1,085.04	30.22
7/7/23 11:26 AM	1,505	30	73.86	201.96	1,062.04	49.27				1,085.66	29.60

Note: bgs = below ground surface Column Pipe Diameter = 1 1/2 inch Horsepower = 5 HP
MSL = Mean Sea Level Pump Setting = 560 ft EC=Electrical conductivity (mS/cm)

Ranches at Round Mountain Well No. 1 - Aquifer Test (July 6, 2023)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 1 Temperature (F)	PW Well No. 1 Water Level (ft bgs)	PW Well No. 1 Water Level (ft MSL)	PW Well No. 1 Drawdown (ft)	PW Well No. 1 Pump Rate (gpm)	PW Well No. 1 Specific Capacity (gpm/ft)	Comments	OW Well No. 2 Water Level (ft MSL)	OW Well No. 2 Drawdown (ft)
7/7/23 11:31 AM	1,510	35	73.76	199.65	1,064.35	46.96				1,086.27	28.99
7/7/23 11:36 AM	1,515	40	73.73	197.89	1,066.11	45.20				1,086.74	28.52
7/7/23 11:41 AM	1,520	45	73.71	196.25	1,067.75	43.56				1,087.32	27.94
7/7/23 11:56 AM	1,535	60	73.69	192.36	1,071.64	39.67				1,088.81	26.45
7/7/23 12:11 PM	1,550	75	73.68	189.35	1,074.65	36.66				1,090.05	25.22
7/7/23 12:26 PM	1,565	90	73.64	187.09	1,076.91	34.40				1,091.16	24.11
7/7/23 12:41 PM	1,580	105	73.66	185.12	1,078.88	32.43				1,092.14	23.12
7/7/23 12:56 PM	1,595	120	73.63	183.46	1,080.54	30.77				1,092.99	22.27
7/7/23 1:26 PM	1,625	150	73.61	180.82	1,083.18	28.13				1,094.51	20.75
7/7/23 1:56 PM	1,655	180	73.62	178.67	1,085.33	25.98				1,095.75	19.51
7/7/23 2:26 PM	1,685	210	73.65	176.92	1,087.08	24.23				1,096.85	18.41
7/7/23 2:56 PM	1,715	240	73.57	175.37	1,088.63	22.68				1,097.95	17.31
7/7/23 3:56 PM	1,775	300	73.56	172.90	1,091.10	20.21				1,099.54	15.72
7/7/23 4:56 PM	1,835	360	73.54	170.89	1,093.11	18.20				1,100.97	14.29
7/7/23 5:56 PM	1,895	420	73.52	169.34	1,094.66	16.65				1,102.16	13.10
7/7/23 6:56 PM	1,955	480	73.52	167.87	1,096.13	15.18				1,103.27	12.00
7/7/23 7:56 PM	2,015	540	73.46	166.54	1,097.46	13.85				1,104.21	11.05
7/7/23 8:56 PM	2,075	600	73.50	165.51	1,098.49	12.82				1,105.08	10.18
7/7/23 9:56 PM	2,135	660	73.50	164.55	1,099.45	11.86				1,105.93	9.33
7/7/23 10:56 PM	2,195	720	73.54	163.73	1,100.27	11.04				1,106.57	8.69
7/7/23 11:56 PM	2,255	780	73.44	162.81	1,101.19	10.12				1,107.21	8.06
7/8/23 12:56 AM	2,315	840	73.45	162.15	1,101.85	9.46				1,107.91	7.36
7/8/23 1:56 AM	2,375	900	73.47	161.62	1,102.38	8.93				1,108.31	6.96
7/8/23 2:56 AM	2,435	960	73.50	161.14	1,102.86	8.45				1,108.81	6.46
7/8/23 3:56 AM	2,495	1,020	73.42	160.55	1,103.45	7.86				1,109.28	5.98
7/8/23 4:56 AM	2,555	1,080	73.47	160.05	1,103.95	7.36				1,109.64	5.62
7/8/23 5:56 AM	2,615	1,140	73.45	159.53	1,104.47	6.84				1,110.10	5.16
7/8/23 6:56 AM	2,675	1,200	73.44	159.09	1,104.91	6.40				1,110.40	4.86
7/8/23 7:56 AM	2,735	1,260	73.46	158.78	1,105.22	6.09				1,110.76	4.50
7/8/23 8:56 AM	2,795	1,320	73.43	158.35	1,105.65	5.66				1,111.10	4.16
7/8/23 9:56 AM	2,855	1,380	73.46	157.98	1,106.02	5.29				1,111.42	3.85
7/8/23 10:56 AM	2,915	1,440	73.45	157.71	1,106.30	5.02				1,111.68	3.58

Note: bgs = below ground surface Column Pipe Diameter = 1 1/2 inch Horsepower = 5 HP
MSL = Mean Sea Level Pump Setting = 560 ft EC=Electrical conductivity (mS/cm)



WELL TEST ANALYSIS

Data Set: \...\PW Well 1.aqt

Date: 08/25/23

Time: 10:15:27

PROJECT INFORMATION

Company: WRGS

Client: Clinard Holdings

Project: 223-001-23

Location: Blanco County

Test Well: Well No. 1

Test Date: 7/6/23

AQUIFER DATA

Saturated Thickness: 315. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
Well No. 1	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
Well No. 2	260	0

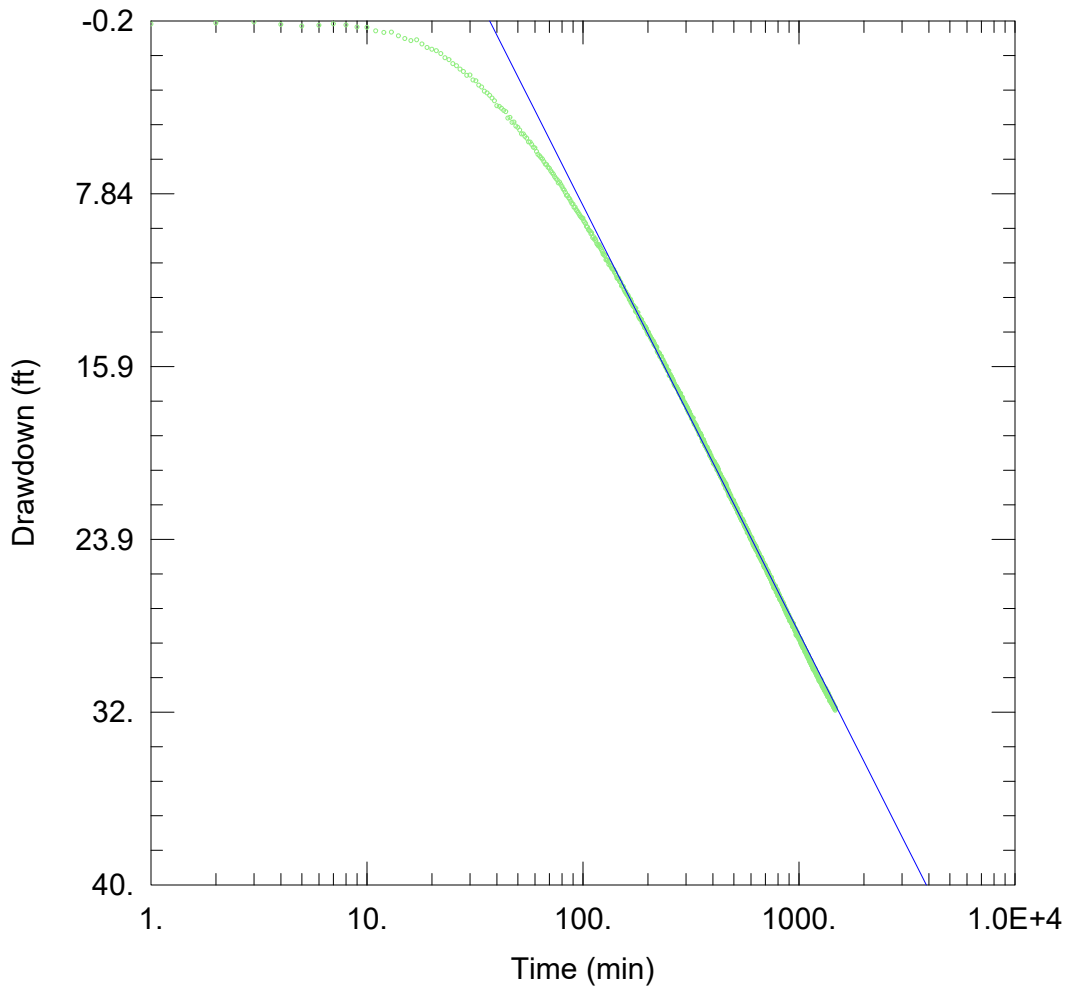
SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

T = 39.08 ft²/day

K = 0.12 ft/day



WELL TEST ANALYSIS

Data Set: \...\OW Well 2.aqt

Date: 08/25/23

Time: 10:16:58

PROJECT INFORMATION

Company: WRGS

Client: Clinard Holdings

Project: 223-001-23

Location: Blanco County

Test Well: Well No. 1

Test Date: 7/6/23

AQUIFER DATA

Saturated Thickness: 315. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
Well No. 1	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
Well No. 2	260	0

SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

T = 49.67 ft²/day

S = 4.34E-5

Aquifer Test
Well No. 4

Ranches at Round Mountain Well No. 4 - Aquifer Test (July 14, 2023)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 4 Temperature (F)	PW Well No. 4 Water Level (ft bgs)	PW Well No. 4 Water Level (ft MSL)	PW Well No. 4 Drawdown (ft)	PW Well No. 4 Pump Rate (gpm)	PW Well No. 4 Specific Capacity (gpm/ft)	Comments	OW Well No. 3 Water Level (ft MSL)	OW Well No. 3 Drawdown (ft)
7/14/23 9:18 AM	0		72.42	287.75	1,145.25	0.00			Pump Start	1,146.72	0.00
7/14/23 9:19 AM	1		72.42	289.67	1,143.33	1.92	27	14.08	Meter: 1,566,166.0 gallons	1,146.68	0.04
7/14/23 9:20 AM	2		72.38	313.37	1,119.63	25.62	27	1.05		1,146.68	0.04
7/14/23 9:21 AM	3		72.36	332.17	1,100.83	44.42	27	0.61		1,146.70	0.02
7/14/23 9:22 AM	4		72.23	347.72	1,085.29	59.96	26	0.43		1,146.61	0.11
7/14/23 9:23 AM	5		72.24	360.50	1,072.50	72.75	24	0.33		1,146.63	0.09
7/14/23 9:24 AM	6		72.17	371.34	1,061.66	83.59	24	0.29		1,146.75	-0.03
7/14/23 9:25 AM	7		72.09	380.54	1,052.46	92.79	24	0.26		1,146.72	0.00
7/14/23 9:26 AM	8		72.00	388.44	1,044.56	100.69	24	0.24		1,146.68	0.04
7/14/23 9:27 AM	9		71.98	395.20	1,037.80	107.45	24	0.22		1,146.67	0.05
7/14/23 9:28 AM	10		71.92	401.11	1,031.89	113.36	24	0.21		1,146.71	0.01
7/14/23 9:29 AM	11		71.95	406.22	1,026.78	118.47	24	0.20		1,146.61	0.11
7/14/23 9:30 AM	12		71.93	410.57	1,022.43	122.82	24	0.20		1,146.59	0.12
7/14/23 9:31 AM	13		71.88	414.83	1,018.17	127.08	24	0.19		1,146.53	0.19
7/14/23 9:32 AM	14		71.91	418.19	1,014.81	130.44	24	0.18		1,146.54	0.18
7/14/23 9:33 AM	15		71.90	421.65	1,011.35	133.90	24	0.18	pH: 7.16/ EC: 0.94	1,146.48	0.24
7/14/23 9:38 AM	20		72.57	377.33	1,055.67	89.58	24	0.27	pH: 7.09/ EC: 0.92	1,146.12	0.60
7/14/23 9:43 AM	25		72.96	380.88	1,052.12	93.13	24	0.26	pH: 7.01/ EC: 0.92	1,145.72	1.00
7/14/23 9:48 AM	30		72.77	417.26	1,015.75	129.50	24	0.19	pH: 7.03/ EC: 0.92	1,145.35	1.37
7/14/23 9:53 AM	35		72.48	434.86	998.14	147.11	24	0.16	pH: 7.00/ EC: 0.92	1,144.94	1.77
7/14/23 9:58 AM	40		72.34	444.47	988.53	156.72	24	0.15	pH: 7.02/ EC: 0.91	1,144.31	2.41
7/14/23 10:03 AM	45		72.28	450.66	982.34	162.91	24	0.15	pH: 7.02/ EC: 0.91	1,143.74	2.98
7/14/23 10:18 AM	60		72.36	461.01	971.99	173.26	24	0.14	pH: 7.00/ EC: 0.92	1,141.23	5.49
7/14/23 10:33 AM	75		72.46	466.71	966.29	178.96	24	0.13	pH: 7.00/ EC: 0.93	1,138.49	8.23
7/14/23 10:48 AM	90		72.68	471.27	961.73	183.52	24	0.13	pH: 7.03/ EC: 0.93	1,135.94	10.78
7/14/23 11:03 AM	105		72.84	474.15	958.85	186.40	24	0.13	pH: 7.04/ EC: 0.93	1,133.26	13.46
7/14/23 11:18 AM	120		72.91	477.00	956.00	189.25	24	0.13	pH: 7.07/ EC: 0.92	1,131.21	15.51
7/14/23 11:48 AM	150		73.04	481.02	951.98	193.27	24	0.12	pH: 7.05/ EC: 0.92	1,127.39	19.33
7/14/23 12:18 PM	180		73.10	484.93	948.07	197.18	24	0.12	pH: 7.08/ EC: 0.92	1,124.33	22.39
7/14/23 12:48 PM	210		73.21	487.45	945.55	199.70				1,121.99	24.73
7/14/23 1:18 PM	240		73.19	482.98	950.02	195.22				1,119.90	26.82
7/14/23 2:18 PM	300		73.18	485.59	947.41	197.84				1,116.98	29.74
7/14/23 3:18 PM	360		73.21	493.22	939.78	205.47				1,114.85	31.87
7/14/23 4:18 PM	420		73.27	487.50	945.50	199.75				1,112.72	34.00
7/14/23 5:18 PM	480		73.23	485.88	947.12	198.13				1,111.32	35.40

Note: bgs = below ground surface Column Pipe Diameter = 1 1/2 inch Horsepower = 5 HP
MSL = Mean Sea Level Pump Setting = 700 ft EC=Electrical conductivity (mS/cm)

Ranches at Round Mountain Well No. 4 - Aquifer Test (July 14, 2023)

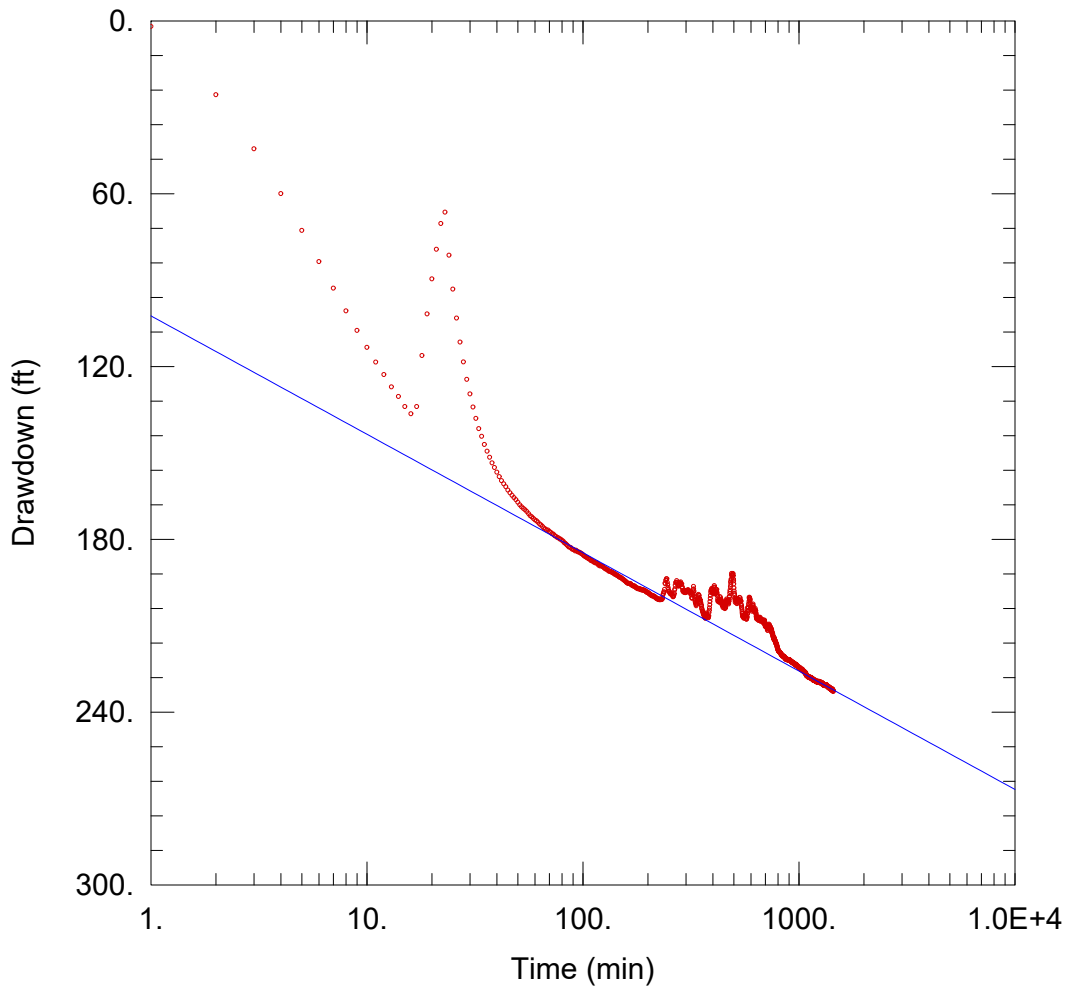
Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 4 Temperature (F)	PW Well No. 4 Water Level (ft bgs)	PW Well No. 4 Water Level (ft MSL)	PW Well No. 4 Drawdown (ft)	PW Well No. 4 Pump Rate (gpm)	PW Well No. 4 Specific Capacity (gpm/ft)	Comments	OW Well No. 3 Water Level (ft MSL)	OW Well No. 3 Drawdown (ft)
7/14/23 6:18 PM	540		73.17	489.21	943.79	201.46				1,110.56	36.16
7/14/23 7:18 PM	600		73.33	491.88	941.12	204.13				1,109.37	37.35
7/14/23 8:18 PM	660		73.15	495.07	937.93	207.32				1,108.43	38.29
7/14/23 9:18 PM	720		73.23	498.55	934.45	210.80				1,107.26	39.46
7/14/23 10:18 PM	780		73.27	503.81	929.19	216.05				1,106.23	40.49
7/14/23 11:18 PM	840		73.29	508.11	924.89	220.35				1,104.94	41.78
7/15/23 12:18 AM	900		73.33	509.73	923.27	221.98				1,103.71	43.01
7/15/23 1:18 AM	960		73.24	511.13	921.88	223.37				1,102.73	43.99
7/15/23 2:18 AM	1,020		73.27	512.68	920.32	224.93				1,101.94	44.78
7/15/23 3:18 AM	1,080		73.35	514.81	918.19	227.06				1,101.21	45.51
7/15/23 4:18 AM	1,140		73.31	515.88	917.12	228.13				1,100.37	46.35
7/15/23 5:18 AM	1,200		73.34	516.77	916.23	229.02				1,099.65	47.07
7/15/23 6:18 AM	1,260		73.27	517.40	915.61	229.64				1,098.94	47.78
7/15/23 7:18 AM	1,320		73.25	518.61	914.39	230.86				1,098.33	48.39
7/15/23 8:18 AM	1,380		73.29	519.40	913.61	231.64				1,097.85	48.87
7/15/23 9:18 AM	1,440		73.31	520.54	912.47	232.78				1,097.33	49.38
7/15/23 9:43 AM	1,465	0	73.31	520.33	912.68	232.57	24	0.10	Pump Stop	1,097.07	49.65
7/15/23 9:44 AM	1,466	1	73.31	505.26	927.74	217.51			Meter: 1,600,774.0 gallons	1,097.06	49.66
7/15/23 9:45 AM	1,467	2	73.39	488.51	944.49	200.76			Avg. Pump Rate: 24	1,097.02	49.70
7/15/23 9:46 AM	1,468	3	73.40	473.80	959.20	186.05				1,096.99	49.72
7/15/23 9:47 AM	1,469	4	73.47	461.19	971.81	173.44				1,097.05	49.66
7/15/23 9:48 AM	1,470	5	73.54	449.92	983.08	162.17				1,097.05	49.67
7/15/23 9:49 AM	1,471	6	73.62	440.18	992.82	152.42				1,097.09	49.63
7/15/23 9:50 AM	1,472	7	73.68	431.37	1,001.63	143.62				1,097.01	49.71
7/15/23 9:51 AM	1,473	8	73.70	423.61	1,009.39	135.86				1,097.11	49.61
7/15/23 9:52 AM	1,474	9	73.74	416.81	1,016.20	129.05				1,097.01	49.71
7/15/23 9:53 AM	1,475	10	73.75	410.39	1,022.62	122.63				1,097.20	49.52
7/15/23 9:54 AM	1,476	11	73.74	404.93	1,028.07	117.18				1,097.19	49.53
7/15/23 9:55 AM	1,477	12	73.74	399.96	1,033.04	112.21				1,097.27	49.45
7/15/23 9:56 AM	1,478	13	73.75	395.43	1,037.57	107.68				1,097.28	49.44
7/15/23 9:57 AM	1,479	14	73.74	391.54	1,041.46	103.79				1,097.39	49.33
7/15/23 9:58 AM	1,480	15	73.83	387.87	1,045.14	100.11				1,097.49	49.23
7/15/23 10:03 AM	1,485	20	73.74	374.18	1,058.82	86.43				1,097.89	48.83
7/15/23 10:08 AM	1,490	25	73.69	365.15	1,067.85	77.40				1,098.52	48.20
7/15/23 10:13 AM	1,495	30	73.66	358.72	1,074.28	70.97				1,099.17	47.55

Note: bgs = below ground surface Column Pipe Diameter = 1 1/2 inch Horsepower = 5 HP
MSL = Mean Sea Level Pump Setting = 700 ft EC=Electrical conductivity (mS/cm)

Ranches at Round Mountain Well No. 4 - Aquifer Test (July 14, 2023)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 4 Temperature (F)	PW Well No. 4 Water Level (ft bgs)	PW Well No. 4 Water Level (ft MSL)	PW Well No. 4 Drawdown (ft)	PW Well No. 4 Pump Rate (gpm)	PW Well No. 4 Specific Capacity (gpm/ft)	Comments	OW Well No. 3 Water Level (ft MSL)	OW Well No. 3 Drawdown (ft)
7/15/23 10:18 AM	1,500	35	73.63	353.72	1,079.29	65.96				1,100.03	46.69
7/15/23 10:23 AM	1,505	40	73.55	349.92	1,083.09	62.16				1,100.75	45.97
7/15/23 10:28 AM	1,510	45	73.50	346.89	1,086.11	59.14				1,101.60	45.12
7/15/23 10:43 AM	1,525	60	73.29	339.28	1,093.72	51.53				1,103.95	42.77
7/15/23 10:58 AM	1,540	75	73.15	334.38	1,098.62	46.63				1,106.35	40.37
7/15/23 11:13 AM	1,555	90	73.13	330.93	1,102.07	43.18				1,108.65	38.07
7/15/23 11:28 AM	1,570	105	73.01	328.20	1,104.81	40.44				1,110.68	36.04
7/15/23 11:43 AM	1,585	120	72.99	325.72	1,107.28	37.97				1,112.60	34.12
7/15/23 12:13 PM	1,615	150	72.86	321.84	1,111.16	34.09				1,115.59	31.13
7/15/23 12:43 PM	1,645	180	72.71	318.95	1,114.05	31.20				1,118.15	28.57
7/15/23 1:13 PM	1,675	210	72.59	316.46	1,116.54	28.71				1,120.25	26.47
7/15/23 1:43 PM	1,705	240	72.53	314.42	1,118.58	26.67				1,121.97	24.75
7/15/23 2:43 PM	1,765	300	72.43	311.32	1,121.68	23.57				1,124.86	21.86
7/15/23 3:43 PM	1,825	360	72.41	308.80	1,124.20	21.05				1,127.23	19.49
7/15/23 4:43 PM	1,885	420	72.35	306.85	1,126.15	19.10				1,129.07	17.65
7/15/23 5:43 PM	1,945	480	72.26	305.06	1,127.94	17.31				1,130.54	16.18
7/15/23 6:43 PM	2,005	540	72.26	303.50	1,129.50	15.75				1,131.85	14.86
7/15/23 7:43 PM	2,065	600	72.28	302.24	1,130.76	14.49				1,132.90	13.82
7/15/23 8:43 PM	2,125	660	72.27	301.14	1,131.86	13.39				1,133.86	12.86
7/15/23 9:43 PM	2,185	720	72.28	300.26	1,132.74	12.51				1,134.67	12.04
7/15/23 10:43 PM	2,245	780	72.22	299.51	1,133.49	11.75				1,135.49	11.23
7/15/23 11:43 PM	2,305	840	72.21	298.72	1,134.28	10.97				1,136.08	10.64
7/16/23 12:43 AM	2,365	900	72.20	298.05	1,134.95	10.30				1,136.62	10.10
7/16/23 1:43 AM	2,425	960	72.26	297.40	1,135.60	9.65				1,137.17	9.55
7/16/23 2:43 AM	2,485	1,020	72.25	296.79	1,136.21	9.03				1,137.69	9.03
7/16/23 3:43 AM	2,545	1,080	72.27	296.35	1,136.65	8.60				1,138.19	8.53
7/16/23 4:43 AM	2,605	1,140	72.26	295.92	1,137.08	8.17				1,138.51	8.21
7/16/23 5:43 AM	2,665	1,200	72.23	295.45	1,137.55	7.70				1,138.90	7.82
7/16/23 6:43 AM	2,725	1,260	72.27	295.02	1,137.98	7.27				1,139.38	7.34
7/16/23 7:43 AM	2,785	1,320	72.25	294.72	1,138.28	6.97				1,139.65	7.07
7/16/23 8:43 AM	2,845	1,380	72.24	294.31	1,138.69	6.56				1,139.86	6.86
7/16/23 9:43 AM	2,905	1,440	72.27	294.02	1,138.98	6.27				1,140.20	6.51

Note: bgs = below ground surface Column Pipe Diameter = 1 1/2 inch Horsepower = 5 HP
MSL = Mean Sea Level Pump Setting = 700 ft EC=Electrical conductivity (mS/cm)



WELL TEST ANALYSIS

Data Set: \...\PW Well 4.aqt

Date: 08/25/23

Time: 10:17:52

PROJECT INFORMATION

Company: WRGS

Client: Clinard Holdings

Project: 223-001-23

Location: Blanco County

Test Well: Well No. 4

Test Date: 7/14/23

AQUIFER DATA

Saturated Thickness: 168. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
Well No. 4	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
• Well No. 3	250	0

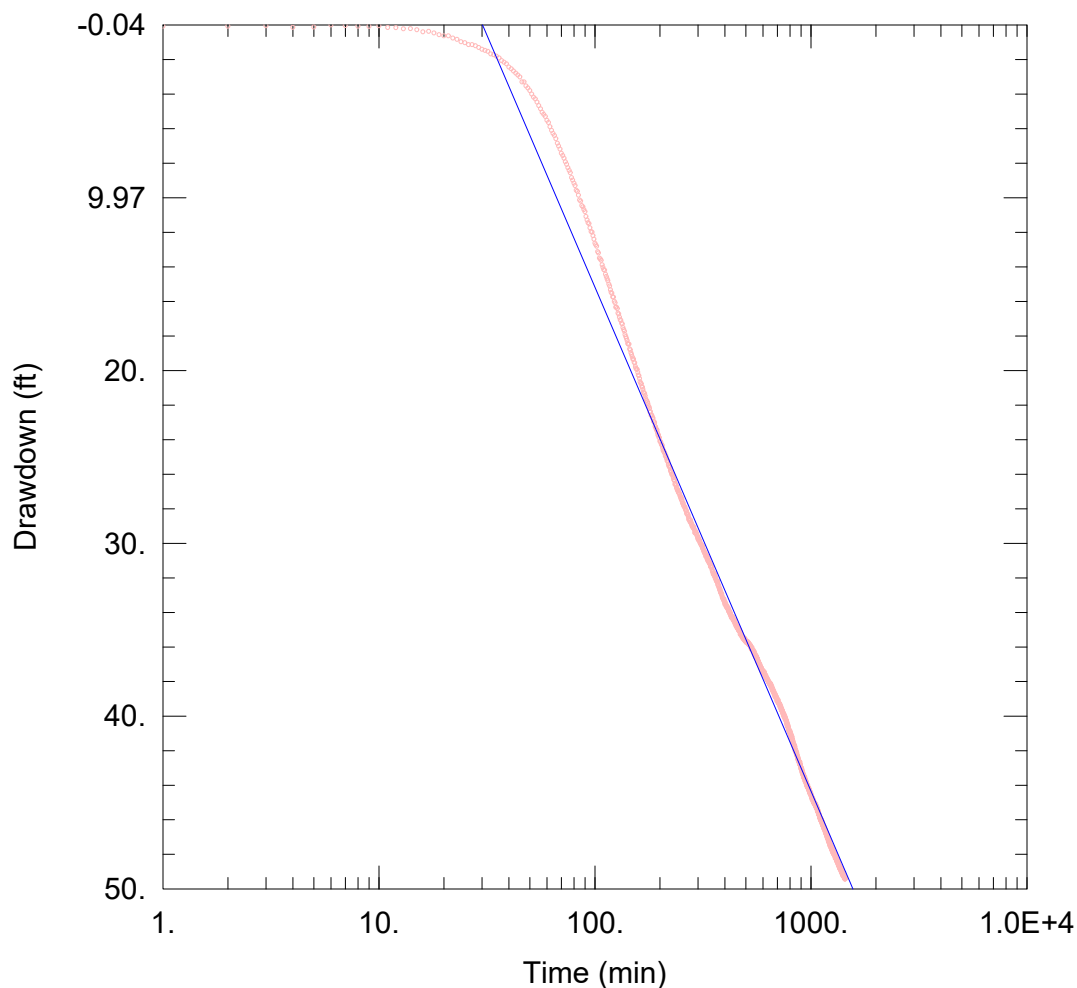
SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

T = 20.59 ft²/day

K = 0.12 ft/day



WELL TEST ANALYSIS

Data Set: \...\OW Well 3.aqt

Date: 08/25/23

Time: 10:18:47

PROJECT INFORMATION

Company: WRGS

Client: Clinard Holdings

Project: 223-001-23

Location: Blanco County

Test Well: Well No. 4

Test Date: 7/14/23

AQUIFER DATA

Saturated Thickness: 168. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
Well No. 4	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
Well No. 3	250	0

SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

T = 29.01 ft²/day

S = 2.191E-5

Aquifer Test

Well No. 5

Ranches at Round Mountain Well No. 5 - Aquifer Test (July 24, 2023)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 5 Temperature (F)	PW Well No. 5 Water Level (ft bgs)	PW Well No. 5 Water Level (ft MSL)	PW Well No. 5 Drawdown (ft)	PW Well No. 5 Pump Rate (gpm)	PW Well No. 5 Specific Capacity (gpm/ft)	Comments	OW Well No. 4 Water Level (ft MSL)	OW Well No. 4 Drawdown (ft)
7/24/23 12:25 PM	0		72.84	284.32	1,145.68	0.00			Pump Start	1,146.11	0.00
7/24/23 12:26 PM	1		72.80	286.02	1,143.98	1.70	12	7.05	Meter: 1,616,948.2 gallons	1,146.02	0.08
7/24/23 12:27 PM	2		72.78	298.90	1,131.10	14.58	12	0.82		1,146.11	0.00
7/24/23 12:28 PM	3		72.77	310.68	1,119.32	26.36	12	0.46		1,146.03	0.08
7/24/23 12:29 PM	4		72.74	321.34	1,108.67	37.02	12	0.32		1,146.03	0.08
7/24/23 12:30 PM	5		72.71	331.02	1,098.98	46.70	12	0.26		1,146.13	-0.02
7/24/23 12:31 PM	6		72.65	339.66	1,090.34	55.34	12	0.22		1,146.02	0.08
7/24/23 12:32 PM	7		72.61	347.66	1,082.34	63.34	12	0.19		1,146.08	0.03
7/24/23 12:33 PM	8		72.59	354.78	1,075.22	70.46	12	0.17		1,146.06	0.05
7/24/23 12:34 PM	9		72.50	361.53	1,068.47	77.21	12	0.16		1,145.97	0.13
7/24/23 12:35 PM	10		72.43	367.47	1,062.53	83.15	12	0.14		1,145.93	0.17
7/24/23 12:36 PM	11		72.39	372.92	1,057.08	88.60	12	0.14		1,146.01	0.10
7/24/23 12:37 PM	12		72.39	378.34	1,051.66	94.02	12	0.13		1,146.00	0.10
7/24/23 12:38 PM	13		72.36	382.98	1,047.02	98.66	12	0.12		1,146.00	0.10
7/24/23 12:39 PM	14		72.33	387.14	1,042.86	102.82	12	0.12		1,145.94	0.16
7/24/23 12:40 PM	15		72.26	391.20	1,038.80	106.88	12	0.11	pH: 7.19/ EC: 0.98	1,145.95	0.16
7/24/23 12:45 PM	20		72.25	407.14	1,022.86	122.82	12	0.10	pH: 7.14/ EC: 0.93	1,145.95	0.16
7/24/23 12:50 PM	25		72.20	417.86	1,012.14	133.54	12	0.09	pH: 7.14/ EC: 0.91	1,145.75	0.36
7/24/23 12:55 PM	30		72.28	426.12	1,003.88	141.80	12	0.08	pH: 7.15/ EC: 0.90	1,145.58	0.53
7/24/23 1:00 PM	35		72.33	432.00	998.00	147.68	12	0.08	pH: 7.17/ EC: 0.90	1,145.47	0.63
7/24/23 1:05 PM	40		72.40	436.46	993.54	152.14	12	0.08	pH: 7.21/ EC: 0.89	1,145.38	0.73
7/24/23 1:10 PM	45		72.45	439.87	990.13	155.55	12	0.08	pH: 7.23/ EC: 0.89	1,145.21	0.89
7/24/23 1:25 PM	60		72.66	447.28	982.72	162.96	12	0.07	pH: 7.22/ EC: 0.89	1,144.80	1.30
7/24/23 1:40 PM	75		72.96	451.78	978.22	167.46	12	0.07	pH: 7.16/ EC: 0.89	1,144.25	1.86
7/24/23 1:55 PM	90		73.00	455.19	974.81	170.87	12	0.07	pH: 7.23/ EC: 0.90	1,143.86	2.25
7/24/23 2:10 PM	105		73.18	457.67	972.33	173.35	12	0.07	pH: 7.23/ EC: 0.90	1,143.58	2.53
7/24/23 2:25 PM	120		73.28	459.88	970.12	175.56	12	0.07	pH: 7.24/ EC: 0.91	1,143.33	2.78
7/24/23 2:55 PM	150		73.45	463.50	966.51	179.18	12	0.07	pH: 7.24/ EC: 0.91	1,142.54	3.57
7/24/23 3:25 PM	180		73.57	466.41	963.59	182.09	12	0.07	pH: 7.24/ EC: 0.89	1,142.05	4.06
7/24/23 3:55 PM	210		73.68	468.74	961.26	184.42	12	0.07	pH: 7.24/EC: 0.89	1,141.49	4.62
7/24/23 4:25 PM	240		73.68	470.71	959.29	186.39				1,140.96	5.14
7/24/23 5:25 PM	300		73.80	473.89	956.11	189.57				1,140.08	6.03
7/24/23 6:25 PM	360		73.76	476.17	953.83	191.85				1,139.20	6.91
7/24/23 7:25 PM	420		73.71	478.23	951.77	193.91				1,138.45	7.66
7/24/23 8:25 PM	480		73.70	479.66	950.34	195.34				1,137.80	8.31

Note: bgs = below ground surface Column Pipe Diameter = 1 1/2 inch Horsepower = 5 HP
MSL = Mean Sea Level Pump Setting = 700 ft EC=Electrical conductivity (mS/cm)

Ranches at Round Mountain Well No. 5 - Aquifer Test (July 24, 2023)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 5 Temperature (F)	PW Well No. 5 Water Level (ft bgs)	PW Well No. 5 Water Level (ft MSL)	PW Well No. 5 Drawdown (ft)	PW Well No. 5 Pump Rate (gpm)	PW Well No. 5 Specific Capacity (gpm/ft)	Comments	OW Well No. 4 Water Level (ft MSL)	OW Well No. 4 Drawdown (ft)
7/24/23 9:25 PM	540		73.72	480.72	949.28	196.40				1,137.19	8.92
7/24/23 10:25 PM	600		73.75	481.84	948.16	197.52				1,136.71	9.40
7/24/23 11:25 PM	660		73.75	482.02	947.98	197.70				1,136.13	9.98
7/25/23 12:25 AM	720		73.72	483.18	946.82	198.86				1,135.67	10.43
7/25/23 1:25 AM	780		73.67	484.35	945.65	200.03				1,135.38	10.73
7/25/23 2:25 AM	840		73.73	485.15	944.85	200.83				1,134.94	11.17
7/25/23 3:25 AM	900		73.74	486.02	943.98	201.70				1,134.52	11.59
7/25/23 4:25 AM	960		73.73	486.58	943.42	202.26				1,134.18	11.92
7/25/23 5:25 AM	1,020		73.74	487.19	942.82	202.87				1,133.88	12.23
7/25/23 6:25 AM	1,080		73.76	488.05	941.95	203.73				1,133.62	12.48
7/25/23 7:25 AM	1,140		73.75	488.50	941.50	204.18				1,133.30	12.80
7/25/23 8:25 AM	1,200		73.81	488.71	941.29	204.39				1,133.12	12.99
7/25/23 9:25 AM	1,260		73.75	489.19	940.82	204.87				1,132.82	13.28
7/25/23 10:25 AM	1,320		73.75	489.81	940.19	205.49				1,132.64	13.47
7/25/23 11:25 AM	1,380		73.74	490.62	939.38	206.30				1,132.42	13.68
7/25/23 12:25 PM	1,440		73.79	491.36	938.64	207.04				1,132.19	13.91
7/25/23 12:31 PM	1,446	0	73.80	491.21	938.80	206.89	12	0.06	Pump Stop	1,132.21	13.89
7/25/23 12:32 PM	1,447	1	73.78	490.16	939.84	205.84			Meter: 1,634,369.4 gallons	1,132.17	13.93
7/25/23 12:33 PM	1,448	2	73.84	480.09	949.91	195.77			Avg. Pump Rate: 12.0	1,132.18	13.92
7/25/23 12:34 PM	1,449	3	73.92	471.11	958.89	186.79				1,132.22	13.89
7/25/23 12:35 PM	1,450	4	73.96	462.81	967.19	178.49				1,132.17	13.94
7/25/23 12:36 PM	1,451	5	74.00	455.06	974.94	170.74				1,132.14	13.97
7/25/23 12:37 PM	1,452	6	74.06	448.12	981.88	163.80				1,132.21	13.89
7/25/23 12:38 PM	1,453	7	74.13	441.60	988.40	157.28				1,132.17	13.94
7/25/23 12:39 PM	1,454	8	74.11	435.71	994.29	151.39				1,132.17	13.93
7/25/23 12:40 PM	1,455	9	74.06	430.14	999.87	145.82				1,132.17	13.94
7/25/23 12:41 PM	1,456	10	74.10	425.08	1,004.92	140.76				1,132.16	13.95
7/25/23 12:42 PM	1,457	11	74.09	420.24	1,009.76	135.92				1,132.13	13.98
7/25/23 12:43 PM	1,458	12	74.07	415.81	1,014.19	131.49				1,132.22	13.89
7/25/23 12:44 PM	1,459	13	74.07	411.58	1,018.42	127.26				1,132.19	13.91
7/25/23 12:45 PM	1,460	14	74.05	407.73	1,022.27	123.41				1,132.14	13.96
7/25/23 12:46 PM	1,461	15	74.06	404.13	1,025.87	119.81				1,132.18	13.92
7/25/23 12:51 PM	1,466	20	73.95	389.29	1,040.71	104.97				1,132.19	13.92
7/25/23 12:56 PM	1,471	25	73.87	378.12	1,051.88	93.80				1,132.31	13.80
7/25/23 1:01 PM	1,476	30	73.81	369.84	1,060.16	85.52				1,132.37	13.73

Note: bgs = below ground surface
MSL = Mean Sea Level

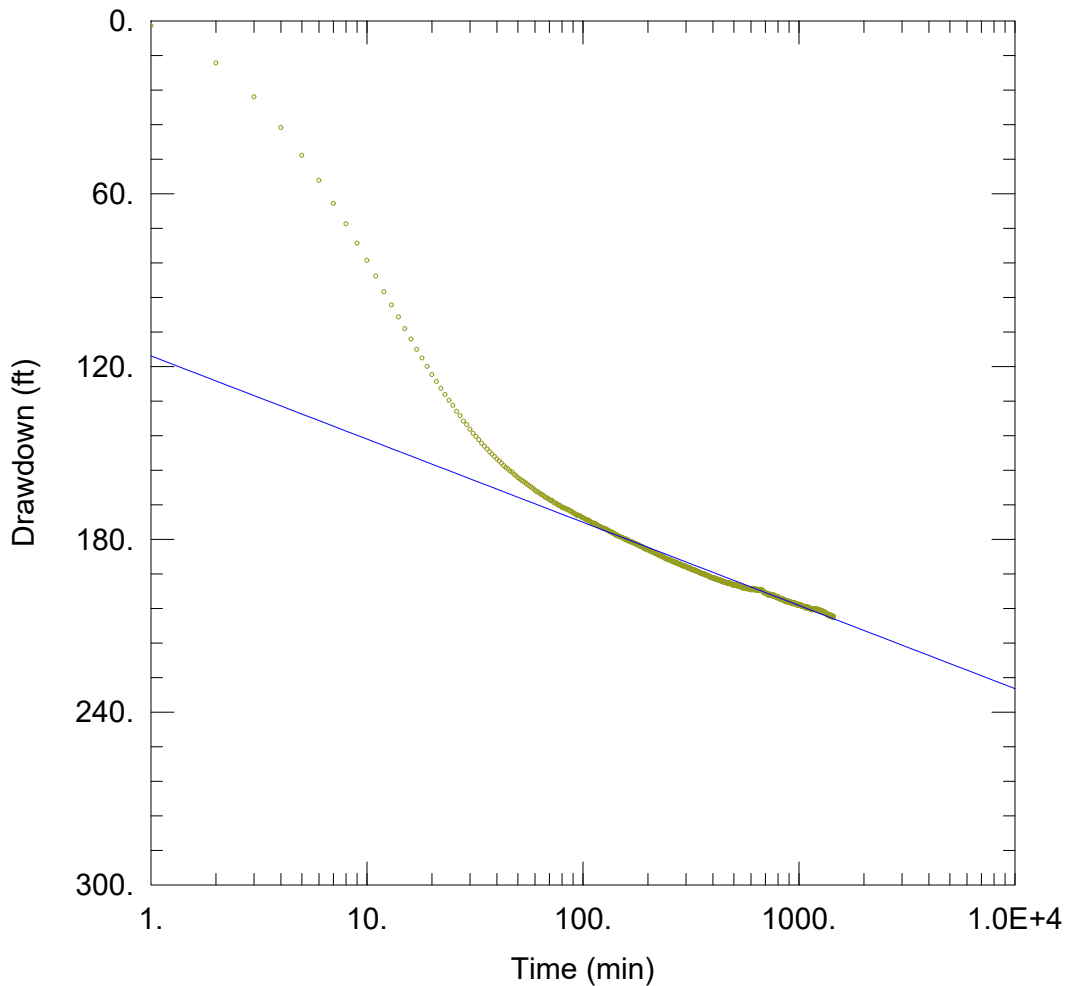
Column Pipe Diameter = 1 1/2 inch
Pump Setting = 700 ft

Horsepower = 5 HP
EC=Electrical conductivity (mS/cm)

Ranches at Round Mountain Well No. 5 - Aquifer Test (July 24, 2023)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 5 Temperature (F)	PW Well No. 5 Water Level (ft bgs)	PW Well No. 5 Water Level (ft MSL)	PW Well No. 5 Drawdown (ft)	PW Well No. 5 Pump Rate (gpm)	PW Well No. 5 Specific Capacity (gpm/ft)	Comments	OW Well No. 4 Water Level (ft MSL)	OW Well No. 4 Drawdown (ft)
7/25/23 1:06 PM	1,481	35	73.73	363.35	1,066.65	79.03				1,132.47	13.64
7/25/23 1:11 PM	1,486	40	73.69	358.08	1,071.93	73.76				1,132.63	13.47
7/25/23 1:16 PM	1,491	45	73.65	353.55	1,076.45	69.23				1,132.81	13.30
7/25/23 1:31 PM	1,506	60	73.56	343.33	1,086.67	59.01				1,133.12	12.99
7/25/23 1:46 PM	1,521	75	73.48	335.62	1,094.38	51.30				1,133.49	12.62
7/25/23 2:01 PM	1,536	90	73.44	329.73	1,100.27	45.41				1,133.91	12.20
7/25/23 2:16 PM	1,551	105	73.35	325.32	1,104.68	41.00				1,134.32	11.78
7/25/23 2:31 PM	1,566	120	73.26	321.77	1,108.23	37.45				1,134.63	11.48
7/25/23 3:01 PM	1,596	150	73.12	316.83	1,113.17	32.51				1,135.31	10.79
7/25/23 3:31 PM	1,626	180	73.04	313.37	1,116.63	29.05				1,135.82	10.29
7/25/23 4:01 PM	1,656	210	72.97	310.65	1,119.35	26.33				1,136.32	9.79
7/25/23 4:31 PM	1,686	240	72.90	308.56	1,121.44	24.24				1,136.77	9.34
7/25/23 5:31 PM	1,746	300	72.84	305.33	1,124.67	21.01				1,137.51	8.60
7/25/23 6:31 PM	1,806	360	72.80	302.97	1,127.03	18.65				1,138.12	7.98
7/25/23 7:31 PM	1,866	420	72.78	301.25	1,128.75	16.93				1,138.64	7.46
7/25/23 8:31 PM	1,926	480	72.75	299.78	1,130.22	15.46				1,139.23	6.88
7/25/23 9:31 PM	1,986	540	72.73	298.61	1,131.39	14.29				1,139.64	6.46
7/25/23 10:31 PM	2,046	600	72.74	297.55	1,132.45	13.23				1,139.97	6.14
7/25/23 11:31 PM	2,106	660	72.71	296.68	1,133.32	12.36				1,140.38	5.72
7/26/23 12:31 AM	2,166	720	72.71	295.97	1,134.03	11.65				1,140.64	5.46
7/26/23 1:31 AM	2,226	780	72.72	295.35	1,134.65	11.03				1,140.86	5.25
7/26/23 2:31 AM	2,286	840	72.68	294.82	1,135.18	10.50				1,141.08	5.02
7/26/23 3:31 AM	2,346	900	72.74	294.26	1,135.74	9.94				1,141.31	4.80
7/26/23 4:31 AM	2,406	960	72.75	293.72	1,136.28	9.40				1,141.46	4.64
7/26/23 5:31 AM	2,466	1,020	72.73	293.40	1,136.60	9.08				1,141.67	4.43
7/26/23 6:31 AM	2,526	1,080	72.75	293.02	1,136.98	8.70				1,141.78	4.33
7/26/23 7:31 AM	2,586	1,140	72.71	292.63	1,137.37	8.31				1,141.92	4.19
7/26/23 8:31 AM	2,646	1,200	72.71	292.24	1,137.76	7.92				1,142.13	3.98
7/26/23 9:31 AM	2,706	1,260	72.69	291.98	1,138.02	7.66				1,142.21	3.90
7/26/23 10:31 AM	2,766	1,320	72.73	291.67	1,138.34	7.35				1,142.35	3.75
7/26/23 11:31 AM	2,826	1,380	72.76	291.48	1,138.52	7.16				1,142.46	3.65
7/26/23 12:31 PM	2,886	1,440	72.78	291.16	1,138.85	6.83				1,142.62	3.48

Note: bgs = below ground surface Column Pipe Diameter = 1 1/2 inch Horsepower = 5 HP
MSL = Mean Sea Level Pump Setting = 700 ft EC=Electrical conductivity (mS/cm)



WELL TEST ANALYSIS

Data Set: \...\PW Well 5.aqt

Date: 08/25/23

Time: 10:19:34

PROJECT INFORMATION

Company: WRGS

Client: Clinard Holdings

Project: 223-001-23

Location: Blanco County

Test Well: Well No. 5

Test Date: 7/24/23

AQUIFER DATA

Saturated Thickness: 148. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
Well No. 5	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
Well No. 4	350	0

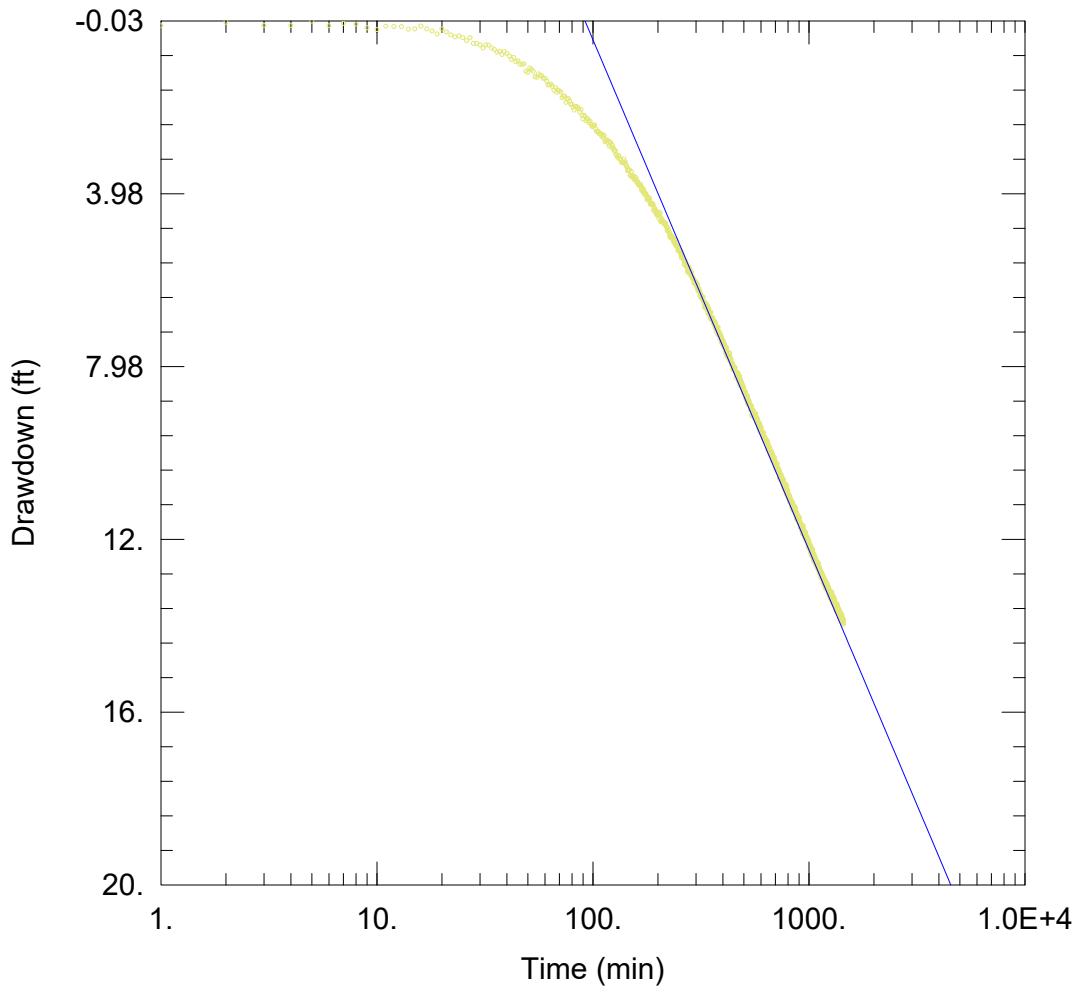
SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

T = 14.65 ft²/day

K = 0.10 ft/day



WELL TEST ANALYSIS

Data Set: \...\OW Well 4.aqt
Date: 08/25/23

Time: 10:20:35

PROJECT INFORMATION

Company: WRGS
Client: Clinard Holdings
Project: 223-001-23
Location: Blanco County
Test Well: Well No. 5
Test Date: 7/24/23

AQUIFER DATA

Saturated Thickness: 148. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
Well No. 5	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
Well No. 4	350	0

SOLUTION

Aquifer Model: Confined
T = 35.79 ft²/day

Solution Method: Cooper-Jacob
S = 4.211E-5

Aquifer Test

Well No. 7

Ranches at Round Mountain Well No. 7 - Aquifer Test (August 7, 2023)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 7 Temperature (F)	PW Well No. 7 Water Level (ft bgs)	PW Well No. 7 Water Level (ft MSL)	PW Well No. 7 Drawdown (ft)	PW Well No. 7 Pump Rate (gpm)	PW Well No. 7 Specific Capacity (gpm/ft)	Comments	OW Well No. 6 Water Level (ft MSL)	OW Well No. 6 Drawdown (ft)
8/7/23 10:20 AM	0		74.46	243.09	1,147.91	0.00			Pump Start	1,162.46	0.00
8/7/23 10:21 AM	1		74.34	266.50	1,124.50	23.41	27	1.15	Meter: 1,664,702.3 gallons	1,162.31	0.15
8/7/23 10:22 AM	2		74.23	288.16	1,102.85	45.07	27	0.60		1,162.43	0.03
8/7/23 10:23 AM	3		74.03	307.11	1,083.89	64.03	27	0.42		1,162.37	0.09
8/7/23 10:24 AM	4		73.88	324.09	1,066.91	81.00	26	0.32		1,162.35	0.10
8/7/23 10:25 AM	5		73.82	339.38	1,051.63	96.29	26	0.27		1,162.39	0.07
8/7/23 10:26 AM	6		73.68	353.06	1,037.94	109.98	25	0.23		1,162.36	0.10
8/7/23 10:27 AM	7		73.60	365.39	1,025.61	122.30	25	0.20		1,162.38	0.08
8/7/23 10:28 AM	8		73.49	377.11	1,013.89	134.02	25	0.19		1,162.29	0.17
8/7/23 10:29 AM	9		73.40	387.67	1,003.33	144.58	25	0.17		1,162.31	0.14
8/7/23 10:30 AM	10		73.35	397.36	993.64	154.28	25	0.16		1,162.26	0.19
8/7/23 10:31 AM	11		73.29	406.24	984.76	163.15	24	0.15		1,162.23	0.23
8/7/23 10:32 AM	12		73.24	414.30	976.70	171.21	24	0.14		1,162.24	0.22
8/7/23 10:33 AM	13		73.14	421.85	969.15	178.77	23	0.13		1,162.15	0.30
8/7/23 10:34 AM	14		73.17	427.89	963.11	184.80	21	0.11		1,162.16	0.30
8/7/23 10:35 AM	15		73.14	432.95	958.05	189.86	21	0.11	pH: 7.11/ EC: 0.97	1,162.04	0.41
8/7/23 10:40 AM	20		72.95	454.95	936.05	211.87	20	0.09	pH: 7.03/ EC: 0.96	1,161.83	0.63
8/7/23 10:45 AM	25		73.04	457.69	933.32	214.60	16	0.07	pH: 6.98/ EC: 0.97	1,161.61	0.84
8/7/23 10:50 AM	30		73.53	456.68	934.32	213.59	16	0.07	pH: 6.98/ EC: 0.96	1,161.36	1.09
8/7/23 10:55 AM	35		73.62	456.38	934.63	213.29	16	0.08	pH: 7.00/ EC: 0.96	1,161.08	1.38
8/7/23 11:00 AM	40		73.48	457.52	933.48	214.43	16	0.07	pH: 7.05/ EC: 0.96	1,160.79	1.66
8/7/23 11:05 AM	45		73.49	459.05	931.95	215.97	16	0.07	pH: 7.03/ EC: 0.96	1,160.47	1.99
8/7/23 11:20 AM	60		73.50	463.37	927.63	220.29	16	0.07	pH: 7.07/ EC: 0.96	1,159.50	2.96
8/7/23 11:35 AM	75		73.52	467.55	923.45	224.46	16	0.07	pH: 7.04/ EC: 0.95	1,158.59	3.87
8/7/23 11:50 AM	90		73.55	471.43	919.57	228.35	15	0.07	pH: 7.04/ EC: 0.95	1,157.51	4.95
8/7/23 12:05 PM	105		73.67	474.87	916.13	231.78	15	0.06	pH: 7.04/ EC: 0.95	1,156.51	5.95
8/7/23 12:20 PM	120		73.73	477.26	913.74	234.17	15	0.06	pH: 7.05/ EC: 0.95	1,155.76	6.70
8/7/23 12:50 PM	150		74.46	453.69	937.31	210.60	14	0.07	pH: 6.98/ EC: 0.95	1,154.13	8.32
8/7/23 1:20 PM	180		74.28	447.94	943.06	204.85				1,152.68	9.78
8/7/23 1:50 PM	210		74.09	447.48	943.52	204.39				1,151.64	10.82
8/7/23 2:20 PM	240		74.04	448.28	942.73	205.19				1,150.60	11.86
8/7/23 3:20 PM	300		74.10	450.59	940.41	207.51				1,148.91	13.54
8/7/23 4:20 PM	360		74.06	452.42	938.59	209.33				1,147.42	15.03
8/7/23 5:20 PM	420		73.97	455.38	935.62	212.30				1,146.29	16.17
8/7/23 6:20 PM	480		74.08	457.29	933.72	214.20				1,145.16	17.29

Note: bgs = below ground surface

MSL = Mean Sea Level

Column Pipe Diameter = 1 1/2 inch

Pump Setting = 700 ft

Horsepower = 5 HP

EC=Electrical conductivity (mS/cm)

Ranches at Round Mountain Well No. 7 - Aquifer Test (August 7, 2023)

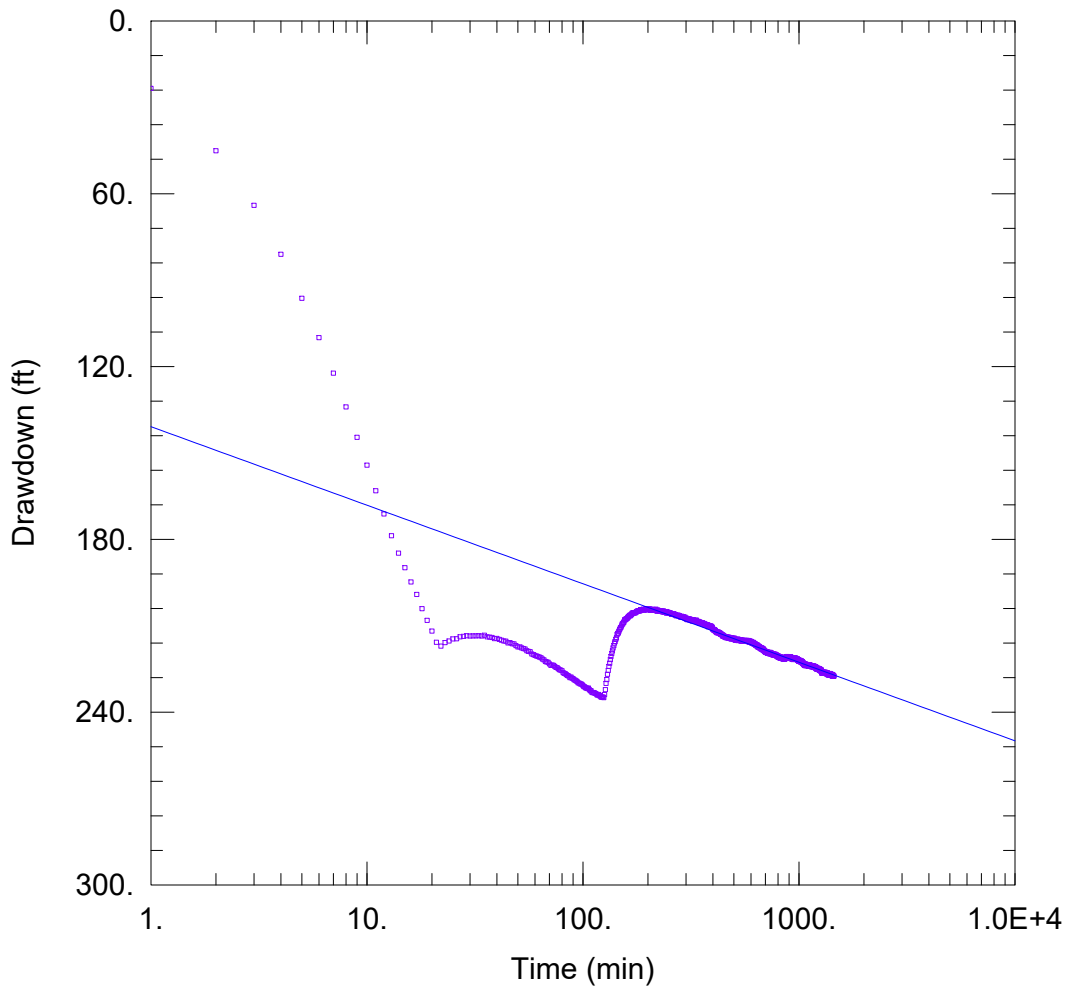
Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 7 Temperature (F)	PW Well No. 7 Water Level (ft bgs)	PW Well No. 7 Water Level (ft MSL)	PW Well No. 7 Drawdown (ft)	PW Well No. 7 Pump Rate (gpm)	PW Well No. 7 Specific Capacity (gpm/ft)	Comments	OW Well No. 6 Water Level (ft MSL)	OW Well No. 6 Drawdown (ft)
8/7/23 7:20 PM	540		74.04	458.26	932.74	215.17				1,144.21	18.25
8/7/23 8:20 PM	600		74.03	458.56	932.44	215.48				1,143.32	19.13
8/7/23 9:20 PM	660		74.05	460.80	930.20	217.71				1,142.54	19.92
8/7/23 10:20 PM	720		74.07	462.59	928.41	219.50				1,141.84	20.61
8/7/23 11:20 PM	780		74.07	463.12	927.88	220.03				1,141.30	21.15
8/8/23 12:20 AM	840		74.06	464.49	926.51	221.40				1,140.60	21.85
8/8/23 1:20 AM	900		74.12	463.85	927.16	220.76				1,139.98	22.47
8/8/23 2:20 AM	960		74.11	464.79	926.21	221.70				1,139.33	23.13
8/8/23 3:20 AM	1,020		74.13	465.34	925.66	222.25				1,138.75	23.71
8/8/23 4:20 AM	1,080		74.11	466.76	924.24	223.67				1,138.31	24.14
8/8/23 5:20 AM	1,140		74.11	467.04	923.96	223.95				1,137.74	24.71
8/8/23 6:20 AM	1,200		74.14	467.52	923.48	224.44				1,137.38	25.08
8/8/23 7:20 AM	1,260		74.12	468.65	922.35	225.56				1,136.93	25.52
8/8/23 8:20 AM	1,320		74.10	469.57	921.43	226.48				1,136.51	25.94
8/8/23 9:20 AM	1,380		74.10	470.01	920.99	226.92				1,136.13	26.32
8/8/23 10:20 AM	1,440		74.15	470.45	920.55	227.37				1,135.76	26.69
8/8/23 10:30 AM	1,450	0	74.10	470.41	920.59	227.32	13	0.06	Pump Stop	1,135.65	26.81
8/8/23 10:31 AM	1,451	1	74.15	467.37	923.63	224.28			Meter: 1,684,409.6 gallons	1,135.66	26.79
8/8/23 10:32 AM	1,452	2	74.32	455.27	935.73	212.18			Avg. Pump Rate: 13.6	1,135.71	26.75
8/8/23 10:33 AM	1,453	3	74.52	444.05	946.95	200.96				1,135.60	26.86
8/8/23 10:34 AM	1,454	4	74.64	433.38	957.63	190.29				1,135.61	26.84
8/8/23 10:35 AM	1,455	5	74.69	423.36	967.64	180.28				1,135.59	26.86
8/8/23 10:36 AM	1,456	6	74.70	413.61	977.39	170.53				1,135.66	26.80
8/8/23 10:37 AM	1,457	7	74.72	404.46	986.54	161.37				1,135.65	26.80
8/8/23 10:38 AM	1,458	8	74.66	395.54	995.47	152.45				1,135.64	26.81
8/8/23 10:39 AM	1,459	9	74.68	387.25	1,003.75	144.16				1,135.65	26.80
8/8/23 10:40 AM	1,460	10	74.60	379.54	1,011.47	136.45				1,135.63	26.83
8/8/23 10:41 AM	1,461	11	74.54	372.17	1,018.83	129.08				1,135.68	26.77
8/8/23 10:42 AM	1,462	12	74.46	365.44	1,025.56	122.35				1,135.66	26.79
8/8/23 10:43 AM	1,463	13	74.46	359.07	1,031.93	115.98				1,135.72	26.74
8/8/23 10:44 AM	1,464	14	74.36	353.17	1,037.83	110.08				1,135.60	26.86
8/8/23 10:45 AM	1,465	15	74.31	347.53	1,043.48	104.44				1,135.65	26.80
8/8/23 10:50 AM	1,470	20	74.20	325.10	1,065.90	82.01				1,135.65	26.80
8/8/23 10:55 AM	1,475	25	74.25	309.26	1,081.74	66.18				1,135.71	26.74
8/8/23 11:00 AM	1,480	30	74.38	298.22	1,092.78	55.13				1,135.83	26.62

Note: bgs = below ground surface Column Pipe Diameter = 1 1/2 inch Horsepower = 5 HP
MSL = Mean Sea Level Pump Setting = 700 ft EC=Electrical conductivity (mS/cm)

Ranches at Round Mountain Well No. 7 - Aquifer Test (August 7, 2023)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 7 Temperature (F)	PW Well No. 7 Water Level (ft bgs)	PW Well No. 7 Water Level (ft MSL)	PW Well No. 7 Drawdown (ft)	PW Well No. 7 Pump Rate (gpm)	PW Well No. 7 Specific Capacity (gpm/ft)	Comments	OW Well No. 6 Water Level (ft MSL)	OW Well No. 6 Drawdown (ft)
8/8/23 11:05 AM	1,485	35	74.37	290.65	1,100.35	47.56				1,135.94	26.52
8/8/23 11:10 AM	1,490	40	74.41	285.18	1,105.82	42.09				1,136.04	26.42
8/8/23 11:15 AM	1,495	45	74.41	281.31	1,109.69	38.23				1,136.24	26.22
8/8/23 11:30 AM	1,510	60	74.32	274.76	1,116.24	31.67				1,136.74	25.72
8/8/23 11:45 AM	1,525	75	74.20	271.25	1,119.75	28.16				1,137.40	25.06
8/8/23 12:00 PM	1,540	90	74.10	269.10	1,121.90	26.02				1,138.15	24.30
8/8/23 12:15 PM	1,555	105	74.03	267.36	1,123.64	24.27				1,138.89	23.56
8/8/23 12:30 PM	1,570	120	73.96	266.08	1,124.92	23.00				1,139.56	22.90
8/8/23 1:00 PM	1,600	150	73.92	264.02	1,126.98	20.93				1,140.66	21.79
8/8/23 1:30 PM	1,630	180	73.76	262.59	1,128.41	19.50				1,141.80	20.66
8/8/23 2:00 PM	1,660	210	73.72	261.19	1,129.81	18.10				1,142.80	19.66
8/8/23 2:30 PM	1,690	240	73.66	260.07	1,130.93	16.99				1,143.55	18.90
8/8/23 3:30 PM	1,750	300	73.64	258.03	1,132.97	14.94				1,145.14	17.31
8/8/23 4:30 PM	1,810	360	73.64	256.64	1,134.37	13.55				1,146.38	16.07
8/8/23 5:30 PM	1,870	420	73.61	255.73	1,135.27	12.64				1,147.45	15.00
8/8/23 6:30 PM	1,930	480	73.58	254.75	1,136.26	11.66				1,148.38	14.08
8/8/23 7:30 PM	1,990	540	73.61	254.06	1,136.94	10.97				1,149.33	13.13
8/8/23 8:30 PM	2,050	600	73.62	253.36	1,137.65	10.27				1,150.01	12.45
8/8/23 9:30 PM	2,110	660	73.70	252.82	1,138.19	9.73				1,150.57	11.89
8/8/23 10:30 PM	2,170	720	73.66	252.35	1,138.65	9.26				1,151.28	11.18
8/8/23 11:30 PM	2,230	780	73.66	251.89	1,139.11	8.81				1,151.79	10.67
8/9/23 12:30 AM	2,290	840	73.74	251.51	1,139.49	8.42				1,152.36	10.10
8/9/23 1:30 AM	2,350	900	73.72	251.17	1,139.83	8.08				1,152.73	9.73
8/9/23 2:30 AM	2,410	960	73.70	250.84	1,140.16	7.76				1,153.16	9.29
8/9/23 3:30 AM	2,470	1,020	73.79	250.59	1,140.41	7.51				1,153.53	8.92
8/9/23 4:30 AM	2,530	1,080	73.85	250.32	1,140.68	7.23				1,153.86	8.60
8/9/23 5:30 AM	2,590	1,140	73.83	249.99	1,141.01	6.91				1,154.18	8.28
8/9/23 6:30 AM	2,650	1,200	73.81	249.93	1,141.07	6.84				1,154.49	7.97
8/9/23 7:30 AM	2,710	1,260	73.84	249.70	1,141.30	6.61				1,154.81	7.64
8/9/23 8:30 AM	2,770	1,320	73.81	249.46	1,141.54	6.38				1,155.05	7.40
8/9/23 9:30 AM	2,830	1,380	73.85	249.17	1,141.83	6.08				1,155.24	7.22
8/9/23 10:30 AM	2,890	1,440	73.85	249.07	1,141.93	5.99				1,155.52	6.94

Note: bgs = below ground surface Column Pipe Diameter = 1 1/2 inch Horsepower = 5 HP
MSL = Mean Sea Level Pump Setting = 700 ft EC=Electrical conductivity (mS/cm)



WELL TEST ANALYSIS

Data Set: \...\PW Well 7.aqt

Date: 08/25/23

Time: 10:22:52

PROJECT INFORMATION

Company: WRGS

Client: Clinard Holdings

Project: 223-001-23

Location: Blanco County

Test Well: Well No. 7

Test Date: 8/7/23

AQUIFER DATA

Saturated Thickness: 140. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
Well No. 7	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
Well No. 6	290	0

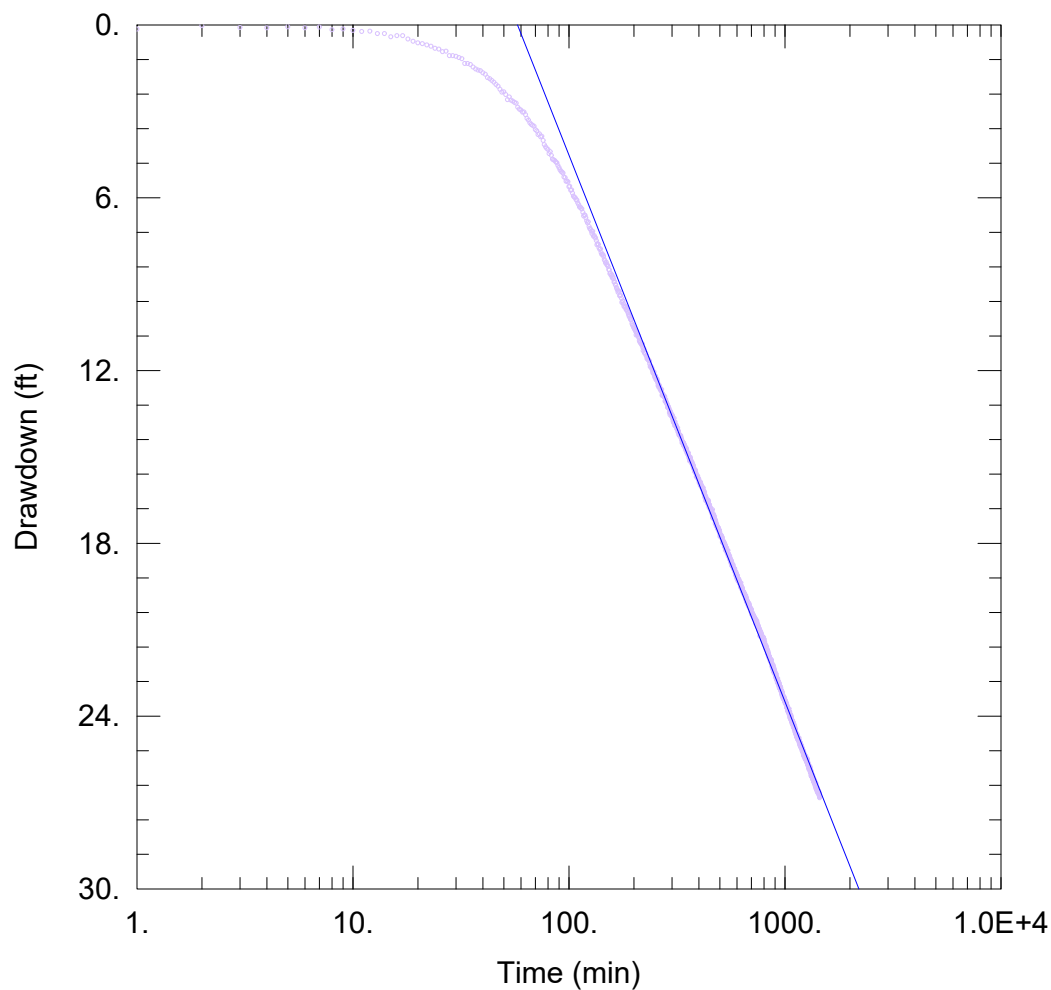
SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

T = 15.52 ft²/day

K = 0.11 ft/day



WELL TEST ANALYSIS

Data Set: \...\OW Well 6.aqt

Date: 08/25/23

Time: 10:23:57

PROJECT INFORMATION

Company: WRGS

Client: Clinard Holdings

Project: 223-001-23

Location: Blanco County

Test Well: Well No. 7

Test Date: 8/7/23

AQUIFER DATA

Saturated Thickness: 140. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
Well No. 7	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
Well No. 6	290	0

SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

T = 22.3 ft²/day

S = 2.391E-5

Aquifer Test

Well No. 8

Ranches at Round Mountain Well No. 8 - Aquifer Test (July 31, 2023)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 8 Temperature (F)	PW Well No. 8 Water Level (ft bgs)	PW Well No. 8 Water Level (ft MSL)	PW Well No. 8 Drawdown (ft)	PW Well No. 8 Pump Rate (gpm)	PW Well No. 8 Specific Capacity (gpm/ft)	Comments	OW Well No. 7 Water Level (ft MSL)	OW Well No. 7 Drawdown (ft)
7/31/23 1:34 PM	0		73.52	271.62	1,117.38	0.00			Pump Start	1,148.28	0.00
7/31/23 1:35 PM	1		73.57	284.73	1,104.27	13.12	27	2.06	Meter: 1,636,096.2 gallons	1,148.22	0.06
7/31/23 1:36 PM	2		73.51	301.76	1,087.25	30.14	27	0.90		1,148.22	0.06
7/31/23 1:37 PM	3		73.52	315.54	1,073.46	43.92	27	0.61		1,148.16	0.12
7/31/23 1:38 PM	4		73.54	326.53	1,062.47	54.91	27	0.49		1,148.34	-0.06
7/31/23 1:39 PM	5		73.54	336.32	1,052.69	64.70	27	0.42		1,148.29	-0.01
7/31/23 1:40 PM	6		73.48	345.37	1,043.63	73.75	27	0.37		1,148.22	0.06
7/31/23 1:41 PM	7		73.47	353.65	1,035.36	82.03	26	0.32		1,148.33	-0.05
7/31/23 1:42 PM	8		73.45	361.22	1,027.78	89.60	26	0.29		1,148.29	-0.01
7/31/23 1:43 PM	9		73.34	368.63	1,020.37	97.01	26	0.27		1,148.29	-0.01
7/31/23 1:44 PM	10		73.32	375.37	1,013.63	103.75	26	0.25		1,148.14	0.14
7/31/23 1:45 PM	11		73.26	381.45	1,007.55	109.83	26	0.24		1,148.21	0.07
7/31/23 1:46 PM	12		73.25	387.28	1,001.72	115.66	26	0.22		1,148.18	0.10
7/31/23 1:47 PM	13		73.21	392.76	996.24	121.14	26	0.21		1,148.21	0.07
7/31/23 1:48 PM	14		73.14	397.74	991.26	126.13	26	0.21		1,148.20	0.08
7/31/23 1:49 PM	15		73.13	402.40	986.60	130.78	26	0.20	pH: 7.25/ EC: 0.95	1,148.26	0.02
7/31/23 1:54 PM	20		72.91	421.51	967.49	149.89	25	0.17	pH: 7.06/ EC: 0.93	1,148.17	0.11
7/31/23 1:59 PM	25		72.85	434.61	954.39	162.99	25	0.15	pH: 7.08/ EC: 0.92	1,148.20	0.08
7/31/23 2:04 PM	30		72.79	444.51	944.50	172.89	24	0.14	pH: 7.11/ EC: 0.92	1,148.13	0.15
7/31/23 2:09 PM	35		72.79	451.74	937.26	180.13	21	0.12	pH: 7.10/ EC: 0.92	1,148.05	0.23
7/31/23 2:14 PM	40		72.78	453.98	935.02	182.37	21	0.12	pH: 7.10/ EC: 0.92	1,148.15	0.13
7/31/23 2:19 PM	45		73.11	448.48	940.53	176.86	21	0.12	pH: 7.10/ EC: 0.93	1,148.14	0.14
7/31/23 2:34 PM	60		73.25	444.55	944.45	172.93	21	0.12	pH: 7.06/ EC: 0.94	1,148.06	0.22
7/31/23 2:49 PM	75		73.29	445.55	943.45	173.94	21	0.12	pH: 7.08/ EC: 0.93	1,147.95	0.33
7/31/23 3:04 PM	90		73.28	447.74	941.27	176.12	21	0.12		1,147.88	0.40
7/31/23 3:19 PM	105		73.23	448.73	940.27	177.11	21	0.12		1,147.74	0.54
7/31/23 3:34 PM	120		73.21	450.09	938.91	178.48	20	0.11		1,147.67	0.61
7/31/23 4:04 PM	150		73.23	452.82	936.19	181.20				1,147.49	0.79
7/31/23 4:34 PM	180		73.18	455.12	933.88	183.50				1,147.32	0.96
7/31/23 5:04 PM	210		73.24	458.02	930.98	186.40				1,147.23	1.05
7/31/23 5:34 PM	240		73.26	459.41	929.59	187.80				1,147.03	1.25
7/31/23 6:34 PM	300		73.29	462.90	926.10	191.28				1,146.53	1.75
7/31/23 7:34 PM	360		73.33	466.55	922.46	194.93				1,146.11	2.16
7/31/23 8:34 PM	420		73.27	469.20	919.80	197.58				1,145.86	2.42
7/31/23 9:34 PM	480		73.32	471.75	917.26	200.13				1,145.38	2.90

Note: bgs = below ground surface Column Pipe Diameter = 1 1/2 inch Horsepower = 5 HP
MSL = Mean Sea Level Pump Setting = 700 ft EC=Electrical conductivity (mS/cm)

Ranches at Round Mountain Well No. 8 - Aquifer Test (July 31, 2023)

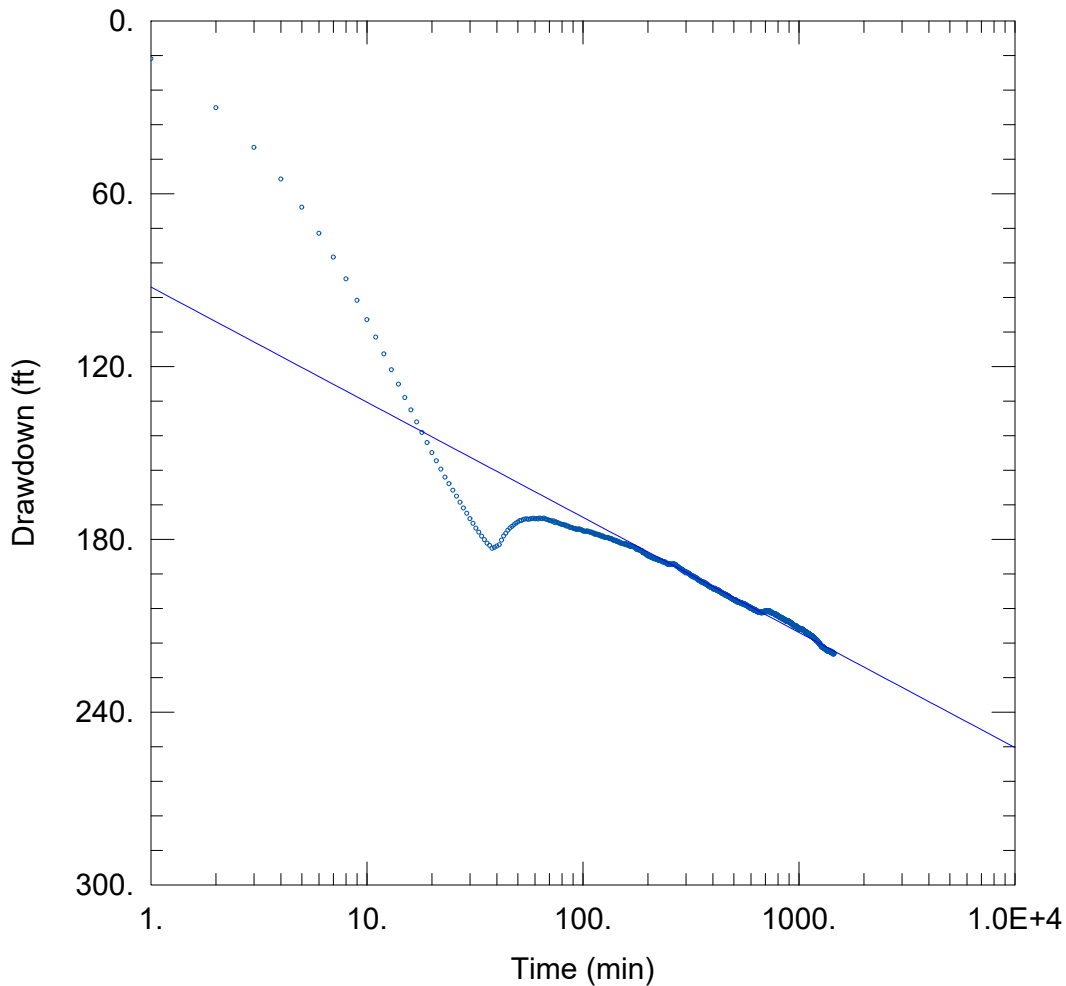
Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 8 Temperature (F)	PW Well No. 8 Water Level (ft bgs)	PW Well No. 8 Water Level (ft MSL)	PW Well No. 8 Drawdown (ft)	PW Well No. 8 Pump Rate (gpm)	PW Well No. 8 Specific Capacity (gpm/ft)	Comments	OW Well No. 7 Water Level (ft MSL)	OW Well No. 7 Drawdown (ft)
7/31/23 10:34 PM	540		73.35	473.68	915.32	202.06				1,144.97	3.31
7/31/23 11:34 PM	600		73.30	475.59	913.41	203.97				1,144.58	3.69
8/1/23 12:34 AM	660		73.31	476.95	912.05	205.33				1,144.33	3.95
8/1/23 1:34 AM	720		73.30	476.52	912.48	204.91				1,143.97	4.31
8/1/23 2:34 AM	780		73.29	477.54	911.46	205.92				1,143.72	4.56
8/1/23 3:34 AM	840		73.30	479.01	909.99	207.39				1,143.40	4.88
8/1/23 4:34 AM	900		73.32	480.21	908.79	208.59				1,143.16	5.12
8/1/23 5:34 AM	960		73.35	481.58	907.42	209.96				1,142.87	5.41
8/1/23 6:34 AM	1,020		73.37	482.64	906.36	211.02				1,142.70	5.58
8/1/23 7:34 AM	1,080		73.39	483.85	905.15	212.23				1,142.39	5.89
8/1/23 8:34 AM	1,140		73.34	485.25	903.75	213.63				1,142.22	6.06
8/1/23 9:34 AM	1,200		73.41	486.51	902.49	214.89				1,141.89	6.39
8/1/23 10:34 AM	1,260		73.37	488.21	900.79	216.60				1,141.59	6.69
8/1/23 11:34 AM	1,320		73.39	489.70	899.30	218.08				1,141.20	7.08
8/1/23 12:34 PM	1,380		73.35	490.41	898.59	218.79				1,141.01	7.26
8/1/23 1:34 PM	1,440		73.40	491.11	897.89	219.50				1,140.77	7.51
8/1/23 1:49 PM	1,455	0	73.42	491.44	897.56	219.82	20	0.09	Pump Stop	1,140.72	7.56
8/1/23 1:50 PM	1,456	1	73.44	476.89	912.12	205.27			Meter: 1,634,369.4 gallons	1,140.71	7.57
8/1/23 1:51 PM	1,457	2	73.52	461.18	927.82	189.56			Avg. Pump Rate: 20.0	1,140.67	7.61
8/1/23 1:52 PM	1,458	3	73.56	447.09	941.91	175.47				1,140.64	7.64
8/1/23 1:53 PM	1,459	4	73.57	434.36	954.64	162.74				1,140.74	7.54
8/1/23 1:54 PM	1,460	5	73.67	422.75	966.25	151.13				1,140.64	7.64
8/1/23 1:55 PM	1,461	6	73.77	411.76	977.24	140.14				1,140.67	7.61
8/1/23 1:56 PM	1,462	7	73.92	401.81	987.19	130.20				1,140.68	7.60
8/1/23 1:57 PM	1,463	8	74.00	392.57	996.43	120.96				1,140.77	7.51
8/1/23 1:58 PM	1,464	9	74.02	384.22	1,004.78	112.60				1,140.73	7.55
8/1/23 1:59 PM	1,465	10	74.04	376.24	1,012.77	104.62				1,140.64	7.64
8/1/23 2:00 PM	1,466	11	74.05	369.15	1,019.85	97.53				1,140.74	7.54
8/1/23 2:01 PM	1,467	12	74.07	362.45	1,026.55	90.84				1,140.66	7.62
8/1/23 2:02 PM	1,468	13	74.06	356.23	1,032.77	84.61				1,140.71	7.57
8/1/23 2:03 PM	1,469	14	74.05	350.40	1,038.60	78.78				1,140.67	7.61
8/1/23 2:04 PM	1,470	15	74.11	345.12	1,043.88	73.50				1,140.68	7.60
8/1/23 2:09 PM	1,475	20	74.03	325.16	1,063.84	53.54				1,140.62	7.66
8/1/23 2:14 PM	1,480	25	73.95	314.28	1,074.72	42.66				1,140.60	7.68
8/1/23 2:19 PM	1,485	30	73.85	307.65	1,081.35	36.03				1,140.55	7.73

Note: bgs = below ground surface Column Pipe Diameter = 1 1/2 inch Horsepower = 5 HP
MSL = Mean Sea Level Pump Setting = 700 ft EC=Electrical conductivity (mS/cm)

Ranches at Round Mountain Well No. 8 - Aquifer Test (July 31, 2023)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 8 Temperature (F)	PW Well No. 8 Water Level (ft bgs)	PW Well No. 8 Water Level (ft MSL)	PW Well No. 8 Drawdown (ft)	PW Well No. 8 Pump Rate (gpm)	PW Well No. 8 Specific Capacity (gpm/ft)	Comments	OW Well No. 7 Water Level (ft MSL)	OW Well No. 7 Drawdown (ft)
8/1/23 2:24 PM	1,490	35	73.73	302.87	1,086.13	31.26				1,140.61	7.67
8/1/23 2:29 PM	1,495	40	73.67	299.07	1,089.93	27.46				1,140.63	7.65
8/1/23 2:34 PM	1,500	45	73.56	296.10	1,092.90	24.48				1,140.54	7.73
8/1/23 2:49 PM	1,515	60	73.42	289.91	1,099.09	18.30				1,140.55	7.73
8/1/23 3:04 PM	1,530	75	73.33	285.51	1,103.49	13.90				1,140.59	7.69
8/1/23 3:19 PM	1,545	90	73.22	282.35	1,106.66	10.73				1,140.56	7.72
8/1/23 3:34 PM	1,560	105	73.13	279.99	1,109.01	8.37				1,140.60	7.68
8/1/23 3:49 PM	1,575	120	72.99	278.06	1,110.94	6.44				1,140.57	7.71
8/1/23 4:19 PM	1,605	150	72.87	275.14	1,113.86	3.52				1,140.60	7.68
8/1/23 4:49 PM	1,635	180	72.78	272.97	1,116.03	1.35				1,140.73	7.55
8/1/23 5:19 PM	1,665	210	72.75	271.09	1,117.91	-0.53				1,140.76	7.52
8/1/23 5:49 PM	1,695	240	72.68	269.64	1,119.37	-1.98				1,140.85	7.42
8/1/23 6:49 PM	1,755	300	72.63	267.28	1,121.72	-4.34				1,140.97	7.31
8/1/23 7:49 PM	1,815	360	72.60	265.52	1,123.49	-6.10				1,141.07	7.21
8/1/23 8:49 PM	1,875	420	72.60	264.06	1,124.94	-7.56				1,141.21	7.07
8/1/23 9:49 PM	1,935	480	72.57	262.84	1,126.17	-8.78				1,141.31	6.97
8/1/23 10:49 PM	1,995	540	72.53	261.75	1,127.25	-9.87				1,141.40	6.88
8/1/23 11:49 PM	2,055	600	72.52	260.82	1,128.18	-10.79				1,141.46	6.82
8/2/23 12:49 AM	2,115	660	72.56	260.01	1,128.99	-11.60				1,141.60	6.68
8/2/23 1:49 AM	2,175	720	72.54	259.18	1,129.82	-12.43				1,141.60	6.68
8/2/23 2:49 AM	2,235	780	72.60	258.53	1,130.48	-13.09				1,141.72	6.56
8/2/23 3:49 AM	2,295	840	72.56	257.83	1,131.17	-13.79				1,141.89	6.39
8/2/23 4:49 AM	2,355	900	72.60	257.12	1,131.88	-14.50				1,141.98	6.30
8/2/23 5:49 AM	2,415	960	72.60	256.54	1,132.47	-15.08				1,142.14	6.14
8/2/23 6:49 AM	2,475	1,020	72.59	256.00	1,133.00	-15.61				1,142.33	5.94
8/2/23 7:49 AM	2,535	1,080	72.64	255.51	1,133.49	-16.10				1,142.41	5.87
8/2/23 8:49 AM	2,595	1,140	72.60	255.16	1,133.84	-16.46				1,142.44	5.84
8/2/23 9:49 AM	2,655	1,200	72.62	254.75	1,134.25	-16.87				1,142.58	5.70
8/2/23 10:49 AM	2,715	1,260	72.63	254.37	1,134.63	-17.25				1,142.51	5.77
8/2/23 11:49 AM	2,775	1,320	72.66	254.00	1,135.00	-17.62				1,142.60	5.68
8/2/23 12:49 PM	2,835	1,380	72.65	253.75	1,135.25	-17.87				1,142.67	5.61
8/2/23 1:49 PM	2,895	1,440	72.67	253.52	1,135.48	-18.10				1,142.67	5.61

Note: bgs = below ground surface Column Pipe Diameter = 1 1/2 inch Horsepower = 5 HP
MSL = Mean Sea Level Pump Setting = 700 ft EC=Electrical conductivity (mS/cm)



WELL TEST ANALYSIS

Data Set: \...\PW Well 8.aqt

Date: 08/25/23

Time: 10:21:15

PROJECT INFORMATION

Company: WRGS

Client: Clinard Holdings

Project: 223-001-23

Location: Blanco County

Test Well: Well No. 8

Test Date: 7/31/23

AQUIFER DATA

Saturated Thickness: 180. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
Well No. 8	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
Well No. 7	380	0

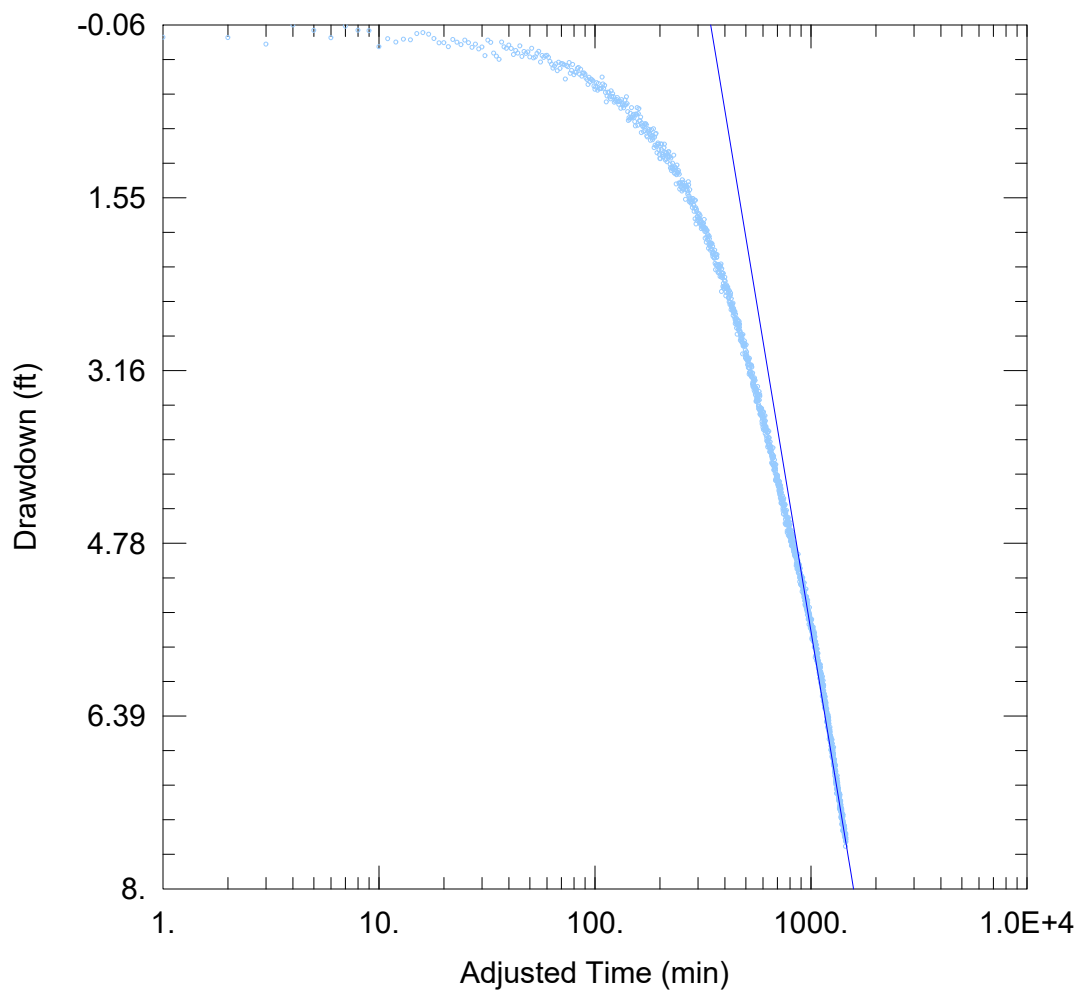
SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

T = 17.65 ft²/day

K = 0.10 ft/day



WELL TEST ANALYSIS

Data Set: \...\OW Well 7.aqt

Date: 08/25/23

Time: 10:22:12

PROJECT INFORMATION

Company: WRGS

Client: Clinard Holdings

Project: 223-001-23

Location: Blanco County

Test Well: Well No. 8

Test Date: 7/31/23

AQUIFER DATA

Saturated Thickness: 180. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
Well No. 8	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
Well No. 7	380	0

SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

T = 57.88 ft²/day

S = 0.0002173

Appendix F

Well Efficiency Calculations



Well Efficiency

Well No. 1



Wet Rock Groundwater Services, L.L.C.

Groundwater Specialists

TBPG Firm No: 50038

317 Ranch Road 620 South, Suite 303

Austin, Texas 78734 • Ph: 512-773-3226

www.wetrockgs.com

Well Efficiency Calculations

Well No. 1

From: *Driscoll, F.G., 1986: Groundwater and Wells: second Ed. Pp.575-579*

Well Efficiency = (Actual specific capacity / Theoretical specific capacity)

Actual Specific Capacity = Q/s

Where: Q = Discharge of well, in gpm; and
s = drawdown, in feet

Actual Specific Capacity = 28 gpm / 146.04 ft = 0.19 gpm/ft

$$\text{Theoretical Specific Capacity} = \frac{Q}{s} = \frac{T}{264 \log \frac{0.3Tt}{r^2 S}} = \frac{T}{2000}$$

Where: T = Transmissivity, in gpd/ft
t = Time of pumping, in days
S = Storage Coefficient, = 4.34×10^{-5}
r = radius of well, in ft.

$$\text{Theoretical Specific Capacity} = \frac{292.36}{264 \log \frac{0.3(292.36)(1)}{0.1875^2 (4.34 \times 10^{-5})}} = 0.14$$

Efficiency = Actual Specific Capacity / Theoretical Specific Capacity = 0.12 / 0.14 = 86%

Well Efficiency

Well No. 4



Wet Rock Groundwater Services, L.L.C.

Groundwater Specialists

TBPG Firm No: 50038

317 Ranch Road 620 South, Suite 303

Austin, Texas 78734 • Ph: 512-773-3226

www.wetrockgs.com

Well Efficiency Calculations

Well No. 4

From: *Driscoll, F.G., 1986: Groundwater and Wells: second Ed. Pp.575-579*

Well Efficiency = (Actual specific capacity / Theoretical specific capacity)

Actual Specific Capacity = Q/s

Where: Q = Discharge of well, in gpm; and
s = drawdown, in feet

Actual Specific Capacity = 24 gpm / 232.57 ft = 0.10 gpm/ft

$$\text{Theoretical Specific Capacity} = \frac{Q}{s} = \frac{T}{264 \log \frac{0.3Tt}{r^2 S}} = \frac{T}{2000}$$

Where: T = Transmissivity, in gpd/ft
t = Time of pumping, in days
S = Storage Coefficient, = 2.19×10^{-5}
r = radius of well, in ft.

$$\text{Theoretical Specific Capacity} = \frac{154.03}{264 \log \frac{0.3(154.03)(1)}{0.1875^2 (2.19 \times 10^{-5})}} = 0.08$$

Efficiency = Actual Specific Capacity / Theoretical Specific Capacity = 0.10 / 0.08 = 125%

Well Efficiency

Well No. 5



Wet Rock Groundwater Services, L.L.C.

Groundwater Specialists

TBPG Firm No: 50038

317 Ranch Road 620 South, Suite 303

Austin, Texas 78734 • Ph: 512-773-3226

www.wetrockgs.com

Well Efficiency Calculations

Well No. 5

From: *Driscoll, F.G., 1986: Groundwater and Wells: second Ed. Pp.575-579*

Well Efficiency = (Actual specific capacity / Theoretical specific capacity)

Actual Specific Capacity = Q/s

Where: Q = Discharge of well, in gpm; and
s = drawdown, in feet

Actual Specific Capacity = 12 gpm / 206.89 ft = 0.06 gpm/ft

$$\text{Theoretical Specific Capacity} = \frac{Q}{s} = \frac{T}{264 \log \frac{0.3Tt}{r^2 S}} = \frac{T}{2000}$$

Where: T = Transmissivity, in gpd/ft
t = Time of pumping, in days
S = Storage Coefficient, = 4.21×10^{-5}
r = radius of well, in ft.

$$\text{Theoretical Specific Capacity} = \frac{109.60}{264 \log \frac{0.3(109.60)(1)}{0.1875^2 (4.21 \times 10^{-5})}} = 0.06$$

Efficiency = Actual Specific Capacity / Theoretical Specific Capacity = 0.06 / 0.06 = 100%

Well Efficiency

Well No. 7



Wet Rock Groundwater Services, L.L.C.
Groundwater Specialists
TBPB Firm No: 50038
317 Ranch Road 620 South, Suite 303
Austin, Texas 78734 • Ph: 512-773-3226
www.wetrockgs.com

Well Efficiency Calculations
Well No. 7

From: *Driscoll, F.G., 1986: Groundwater and Wells: second Ed. Pp.575-579*

Well Efficiency = (Actual specific capacity / Theoretical specific capacity)

Actual Specific Capacity = Q/s

Where: Q = Discharge of well, in gpm; and
s = drawdown, in feet

Actual Specific Capacity = 13 gpm / 227.32 ft = 0.06 gpm/ft

$$\text{Theoretical Specific Capacity} = \frac{Q}{s} = \frac{T}{264 \log \frac{0.3Tt}{r^2 S}} = \frac{T}{2000}$$

Where: T = Transmissivity, in gpd/ft
t = Time of pumping, in days
S = Storage Coefficient, = 2.39×10^{-5}
r = radius of well, in ft.

$$\text{Theoretical Specific Capacity} = \frac{116.10}{264 \log \frac{0.3(116.10)(1)}{0.1875^2 (2.39 \times 10^{-5})}} = 0.06$$

Efficiency = Actual Specific Capacity / Theoretical Specific Capacity = 0.06 / 0.06 = 100%

Well Efficiency

Well No. 8



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www.wetrockgs.com

Well Efficiency Calculations **Well No. 8**

From: *Driscoll, F.G., 1986: Groundwater and Wells: second Ed. Pp.575-579*

Well Efficiency = (Actual specific capacity / Theoretical specific capacity)

Actual Specific Capacity = Q/s

Where: Q = Discharge of well, in gpm; and
s = drawdown, in feet

Actual Specific Capacity = 20 gpm / 219.82 ft = 0.09 gpm/ft

$$\text{Theoretical Specific Capacity} = \frac{Q}{s} = \frac{T}{264 \log \frac{0.3Tt}{r^2 S}} = \frac{T}{2000}$$

Where: T = Transmissivity, in gpd/ft
t = Time of pumping, in days
S = Storage Coefficient, = 2.17×10^{-4}
r = radius of well, in ft.

$$\text{Theoretical Specific Capacity} = \frac{132.04}{264 \log \frac{0.3(132.04)(1)}{0.1875^2 (2.17 \times 10^{-4})}} = \mathbf{0.07}$$

Efficiency = Actual Specific Capacity / Theoretical Specific Capacity = 0.09 / 0.07 = 129%

Appendix G

Water Quality Report



Water Quality

Well No. 1

Email information for report date:
7/21/23 11:28
G023248

Apex Drilling

Attn: Michael Becker
apexdrilling.becker@yahoo.com

PO Box 867
Marble Falls, TX 78654

August 2023 price increase.

Due to the increase in operational costs, Aqua-Tech Laboratories will be implementing a slight price increase. The new price list will be effective August 1, 2023.

Aqua-Tech values you as a customer and encourages you to reach out to our accounting staff at accounting@aquatechlabs.com if you have questions.

Thank you for your business,
June M. Brien
Executive Technical Director

BRYAN FACILITY
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Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193



AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

The following abbreviations indicate certification status:

NEL	TNI accredited parameter.
ANR	Accreditation not offered by the State of Texas.
DWP	Approval through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF	Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

Certificate: T104704371-22-26



TCEQ Lab ID T104704371

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

General Definitions:

NR	Not Reported.
RPD	Relative Percent Difference.
% R	Percent Recovery.
dry	Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL	The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL	The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations.
MDL	The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - *Required containers, preservation techniques, and holding times*, unless otherwise noted in this report.

Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

A handwritten signature in black ink that reads 'June M. Brien'.
June M. Brien, Technical Director

The results in this report apply only to the samples analyzed. This analytical report must be reproduced in its entirety unless written permission is granted by Aqua-Tech Laboratories, Inc.

corp@aquatechlabs.com

www.aquatechlabs.com

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Analytical Report

Apex Drilling

Report Printed:

7/21/23 11:28

G023248

Apex Drilling Clinard #1

Collected: 07/05/23 14:00 by CLIENT
Received: 07/06/23 12:00 by Kaitlyn Johnson

Type
Grab

Matrix
Drinking Water

C-O-C #
G023248

Lab ID#	G023248-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch
General Chemistry											
Total Dissolved Solids	482	mg/L			25.0	50.0	50.0	Austin	07/07/23 14:27 MAM	SM2540 C 2015	M163488 NEL
Nitrate as N (NO3N)	<0.020	mg/L				0.020	0.020	Calc	07/12/23 11:15 BEB	SM4500-NO3-F 2011	[CALC] NEL
Nitrite as N	<0.01	mg/L		J (0.004)	0.002	0.002	0.01	Austin	07/07/23 13:30 BEB	SM4500 NO2- B 2011	M163485 NEL
Nitrate/Nitrite as N	0.02	mg/L			0.02	0.02	0.02	Bryan	07/12/23 11:15 KMA	SM4500-NO3-F 2011	M163642 ANR
Total Hardness (EDTA) as CaCO3	330	mg/L			1.00	1.00	1.00	Bryan	07/11/23 10:14 ATG	SM2340 C 2011	M163565 NEL
Fluoride	0.62	mg/L			0.04	0.04	0.10	Bryan	07/10/23 08:25 ATG	SM4500-F C 2011	M163504 NEL
pH, Lab	7.3	S.U.		Hold-03	0.1	0.1	4.0	Austin	07/15/23 13:15 MSA	SM4500-H+ B 2011	M163817 DWP
Temperature @ pH Analysis	22.0	Deg. C				N/A	N/A	Austin	07/15/23 13:15 MSA	SM4500-H+ B 2011	M163817 DWP
Specific Conductance (adjusted to 25.0°C)	769	uS/cm			2.00	2.00	2.00	Austin	07/15/23 14:35 MSA	SM2510 B 2011	M163822 DWP,NEL
Microbiological Analyses											
Total Coliforms	Absent	N/A			N/A	N/A	N/A	Austin	07/06/23 16:24 DJB	SM9223 B 2004	M163446 NEL
Escherichia coli (E.coli)	Absent	N/A			N/A	N/A	N/A	Austin	07/06/23 16:24 DJB	SM9223 B 2004	M163446 NEL
Metals (Total)											
Iron	0.169	mg/L			0.002	0.002	0.010	Bryan	07/19/23 16:56 ABM	EPA 200.7 R4.4	M163740 NEL
Manganese	341	ug/L			0.108	0.110	0.408	Bryan	07/12/23 00:23 ABM	EPA 200.8 R5.4	M163515 NEL

Please see the attached subcontract report for subcontracted data.

Explanation of Notes

Hold-03 This parameter was outside of EPA holding at the time the sample was received in the laboratory.

J Analyte detected below the SQL but above the MDL.

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Analytical Report

Apex Drilling

Report Printed:

7/21/23 11:28

G023248

General Chemistry - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Fluoride - SM4500-F C 2011												<i>Bryan</i>
Initial Cal Check	0.38	mg/L			07/10/23 08:25 ATG	0.390		98.5	90 - 110			2307072
Blank	<0.10	mg/L	0.04	0.10	07/10/23 08:25 ATG							M163504
LCS	0.80	mg/L	0.04	0.10	07/10/23 08:25 ATG	0.798		99.9	90 - 110			M163504
LCS Dup	0.79	mg/L	0.04	0.10	07/10/23 08:25 ATG	0.798		98.7	90 - 110	1.26	10	M163504
Matrix Spike	1.46	mg/L	0.04	0.10	07/10/23 08:25 ATG	0.798	0.62	105	78.6 - 129			M163504
Matrix Spike Dup	1.46	mg/L	0.04	0.10	07/10/23 08:25 ATG	0.798	0.62	105	78.6 - 129	0.00	10	M163504
MRL Check	0.10	mg/L	0.04	0.10	07/10/23 08:25 ATG	0.0997		100	75 - 125			M163504
Nitrate/Nitrite as N - SM4500-NO3-F 2011												<i>Bryan</i>
Initial Cal Check	1.2	mg/L			07/12/23 11:15 KMA	1.18		103	90 - 110			2307110
Low Cal Check	0.02	mg/L			07/12/23 11:15 KMA	0.0200		115	70 - 130			2307110
Blank	<0.02	mg/L	0.02	0.02	07/12/23 11:15 KMA							M163642
LCS	0.50	mg/L	0.02	0.02	07/12/23 11:15 KMA	0.500		99.0	90.1 - 115			M163642
LCS Dup	0.50	mg/L	0.02	0.02	07/12/23 11:15 KMA	0.500		99.6	90.1 - 115	0.604	6.1	M163642
Matrix Spike	0.82	mg/L	0.02	0.02	07/12/23 11:15 KMA	0.500	0.30	104	84.8 - 120			M163642
Matrix Spike Dup	0.82	mg/L	0.02	0.02	07/12/23 11:15 KMA	0.500	0.30	105	84.8 - 120	0.191	8.35	M163642
Nitrite as N - SM4500 NO2- B 2011												<i>Austin</i>
Initial Cal Check	0.10	mg/L			07/07/23 13:30 BEB	0.104		94.3	90 - 110			2307067
Blank	<0.01	mg/L	0.002	0.01	07/07/23 13:30 BEB							M163485
LCS	0.08	mg/L	0.002	0.01	07/07/23 13:30 BEB	0.0800		99.2	90 - 110			M163485
LCS Dup	0.08	mg/L	0.002	0.01	07/07/23 13:30 BEB	0.0800		102	90 - 110	2.97	7.76	M163485
Matrix Spike	0.14	mg/L	0.002	0.01	07/07/23 13:30 BEB	0.0800	0.07	89.7	63.1 - 112			M163485
Matrix Spike Dup	0.14	mg/L	0.002	0.01	07/07/23 13:30 BEB	0.0800	0.07	91.4	63.1 - 112	1.89	6.92	M163485
MRL Check	0.01	mg/L	0.002	0.01	07/07/23 13:30 BEB	0.0100		110	70 - 130			M163485
Initial Cal Check	0.11	mg/L			10/05/22 12:13 BEB	0.100		107	90 - 110			2210038
pH, Lab - SM4500-H+ B 2011												<i>Austin</i>
Initial Cal Check	6.8	pH Units			07/15/23 13:15 MSA	6.86		99.9	95 - 105			2307154
Initial Cal Check	9.1	pH Units			07/15/23 13:15 MSA	9.18		99.1	95 - 105			2307154
Duplicate	7.1	pH Units	0.1	4.0	07/15/23 13:15 MSA		7.0			0.426	1.16	M163817
Specific Conductance (adjusted to 25.0°C) - SM2510 B 2011												<i>Austin</i>
	522	uS/cm			07/15/23 14:35 MSA	545		95.8	90 - 110			2307158
Blank	<2.00	uS/cm	2.00	2.00	07/15/23 14:35 MSA							M163822
Duplicate	769	uS/cm	2.00	2.00	07/15/23 14:35 MSA		769			0.00	1.79	M163822
LCS	1400	uS/cm	2.00	2.00	07/15/23 14:35 MSA	1410		99.6	96.2 - 104			M163822

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Analytical Report

Apex Drilling

Report Printed:

7/21/23 11:28

G023248

General Chemistry - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Total Dissolved Solids - SM2540 C 2015												<i>Austin</i>
Blank	<25.0	mg/L	25.0	25.0	07/07/23 14:27 MAM							M163488
Duplicate	398	mg/L	50.0	50.0	07/07/23 14:27 MAM		390			2.03	13.9	M163488
Reference	516	mg/L	100	100	07/07/23 14:27 MAM	500		103	66 - 140			M163488
Total Hardness (EDTA) as CaCO3 - SM2340 C 2011												<i>Bryan</i>
Initial Cal Check	70.3	mg/L			07/11/23 10:14 ATG	64.2		110	90 - 110			2307091
Blank	<1.00	mg/L	1.00	1.00	07/11/23 10:14 ATG							M163565
Duplicate	202	mg/L	1.00	1.00	07/11/23 10:14 ATG		209			3.21	9.52	M163565
LCS	96.7	mg/L	1.00	1.00	07/11/23 10:14 ATG	100		96.7	90 - 110			M163565
LCS Dup	98.9	mg/L	1.00	1.00	07/11/23 10:14 ATG	100		98.9	90 - 110	2.25	6.47	M163565
Matrix Spike	314	mg/L	1.00	1.00	07/11/23 10:14 ATG	100	209	106	87.6 - 111			M163565
MRL Check	4.40	mg/L	1.00	1.00	07/11/23 10:14 ATG	4.00		110	70 - 130			M163565

Metals (Total) - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Iron - EPA 200.7 R4.4												<i>Bryan</i>
Blank	<0.010	mg/L	0.002	0.010	07/19/23 16:07 ABM							M163740
LCS	1.04	mg/L	0.002	0.010	07/19/23 16:10 ABM	1.00		104	84.5 - 115.4			M163740
LCS Dup	1.05	mg/L	0.002	0.010	07/19/23 16:13 ABM	1.00		105	84.5 - 115.4	0.499	20	M163740
Duplicate	<0.010	mg/L	0.002	0.010	07/19/23 16:17 ABM		<0.010				20	M163740
Matrix Spike	1.03	mg/L	0.002	0.010	07/19/23 16:20 ABM	1.00	<0.010	103	69.5 - 130.4			M163740
Manganese - EPA 200.8 R5.4												<i>Bryan</i>
Blank	<0.408	ug/L	0.110	0.408	07/11/23 23:49 ABM							M163515
LCS	9.92	ug/L	0.111	0.412	07/11/23 23:56 ABM	10.0		99.2	84.5 - 115.4			M163515
LCS Dup	9.81	ug/L	0.111	0.412	07/12/23 00:03 ABM	10.0		98.1	84.5 - 115.4	1.10	20	M163515
Duplicate	340	ug/L	0.110	0.408	07/12/23 00:09 ABM		341			0.285	20	M163515
Matrix Spike	352	ug/L	0.111	0.412	07/12/23 00:16 ABM	10.0	341	113	69.5 - 130.4			M163515

Microbiological Analyses - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Log10 Comparison Range	Control Limit	Batch
Escherichia coli (E.coli) - SM9223 B 2004												<i>Austin</i>
Blank	Absent	N/A	N/A	N/A	07/06/23 16:24 DJB							M163446

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Analytical Report

Apex Drilling

Report Printed:

7/21/23 11:28

G023248

Microbiological Analyses - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Log10 Comparison Range	Control Limit	Batch
Total Coliforms - SM9223 B 2004												<i>Austin</i>
Blank	Absent	N/A	N/A	N/A	07/06/23 16:24 DJB							M163446

Preparation Procedures - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Turbidity - SM2130 B 2011												<i>Bryan</i>
Initial Cal Check	10	NTU			06/14/23 09:24 HDH	9.52		107	90 - 110			2306185
Low Cal Check	0.5	NTU			06/14/23 09:24 HDH	0.400		130	70 - 130			2306185
Low Cal Check	1.3	NTU			06/14/23 09:24 HDH	1.00		130	70 - 130			2306185

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
G023248-01										
Escherichia coli (E.coli)	SM9223 B 2004	7/6/23 16:17 DJB	Austin	E	100	mL	100	mL	1	M163446
Fluoride	SM4500-F C 2011	7/10/23 8:25 ATG	Bryan	F	25.0	mL	25.0	mL	1	M163504
Iron	EPA 200.7 R4.4	7/18/23 9:15 ABM	Bryan	B	10.0	mL	10.2	mL	1	M163740
Manganese	EPA 200.8 R5.4	7/11/23 10:55 ABM	Bryan	B	10.0	mL	10.2	mL	1	M163515
Nitrate/Nitrite as N	SM4500-NO3-F 2011	7/12/23 10:07 KMA	Bryan	C	10.0	mL	10.0	mL	1	M163642
Nitrite as N	SM4500 NO2- B 2011	7/7/23 13:30 BEB	Austin	A	25.0	mL	25.0	mL	1	M163485
pH, Lab	SM4500-H+ B 2011	7/15/23 13:15 MSA	Austin	A	50.0	mL	50.0	mL	1	M163817
Specific Conductance (adjusted to 25.0°C)	SM2510 B 2011	7/15/23 14:35 MSA	Austin	A	25.0	mL	25.0	mL	1	M163822
Subcontract	Sub Contract Data Entry	7/17/23 12:41 PMY	Bryan	-	-	-	-	-	-	M163872
Temperature @ pH Analysis	SM4500-H+ B 2011	7/15/23 13:15 MSA	Austin	A	50.0	mL	50.0	mL	1	M163817
Total Coliforms	SM9223 B 2004	7/6/23 16:17 DJB	Austin	E	100	mL	100	mL	1	M163446
Total Dissolved Solids	SM2540 C 2015	7/7/23 14:27 MAM	Austin	A	50.0	mL	100	mL	1	M163488
Total Hardness (EDTA) as CaCO3	SM2340 C 2011	7/11/23 10:14 ATG	Bryan	B	50.0	mL	50.0	mL	1	M163565
Turbidity	SM2130 B 2011	7/10/23 8:35 HDH	Bryan	B	10.0	mL	10.0	mL	1	M163503



Chain-of-Custody and Analysis Request

Client / Project: CLINARO Apex Drilling / DW Well Completion

Name APEX DRILLING
Address _____
City _____ State _____ ZIP _____
Phone / Email _____

Definitions
DW - Drinking Water (+) Container Type
NP - Non-Potable Water P - Plastic
S - Solid G - Glass
T - Teflon®
CM - Custody Maintained
CTU - Custody Transfer Unbroken
CT - Corrected Temperature
SUB - Subcontracted Analysis

By relinquishing the samples listed below to Aqua-Tech, the client agrees to the following terms.
Samples will be analyzed by a method that is within Aqua-Tech Laboratories' NELAC fields of accreditation. Analyses requiring a certified method that is not within Aqua-Tech's fields of accreditation will be subcontracted to a NELAC certified lab that is certified for that method. Clients will be notified of the subcontract lab's details. Other analyses not requiring accreditation will be analyzed by a compendial method. If a specific method is required, the client will note the method in the "Analysis Requested" column. The client approves all method modifications documented by Aqua-Tech or the subcontract lab. A current list of Aqua-Tech's NELAC fields of accreditation and other methods are available on request.

Client Comments:	* Preservatives	Receipt in Lab
	1 < 6 °C (unfrozen)	Cooler ID: <u>CT</u>
	2 H2SO4 <u>0790823</u>	Temperature (°C): <u>30/39CT</u>
	3 HCl	read / CT
	4 HNO3 <u>0797021</u>	Preservation Correct? <u>YES</u> NO YES* NO
	5 Na2S2O3 <u>0784534</u>	Post Preservatives? YES <u>NO</u> YES NO
	6 NaOH	Thermometer ID: <u>0704480</u>
	7	pH Paper ID: <u>0802395</u>
Lab Comments: <u>Spirits taken from bottle 6023248-01 A for bottles 6023248-01 F (FI) and 6 (C, 604).</u>		



Aqua-Tech Laboratories, Inc.

Austin

Bryan

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512.301.9559

635 Phil Gramm Blvd.
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979.778.3707

Work Order / C-O-C

6023248

Page 1 of 1

V-0023 R03

TCEQ Lab ID:
T104704371

Test results meet all accreditation/certification requirements unless stated otherwise.

Sample Custody

Relinquished by (print & sign)	☒ Sampler ☐ Client ☐ ATL Field	Date	☒ Iced / Refrig ☐ Custody Sealed
<u>MIKE BECKER</u>		<u>4-6-23</u> <u>12:00</u>	
Received by (print & sign)	☐ Client ☐ ATL Field	Date	☐ Iced / Refrig ☐ CM / CTU
Relinquished by (print & sign)	☐ Client ☐ ATL Field	Date	☐ Iced / Refrig ☐ CM / CTU
Received by (print & sign)	☐ Client ☐ ATL Field	Date	☐ Iced / Refrig ☐ CM / CTU
Relinquished by (print & sign)	☐ Client ☐ ATL Field	Date	☐ Iced / Refrig ☐ CM / CTU / sealed
Received by (print & sign)	☒ Lab	Date <u>7-5-23</u> Time <u>12:00</u>	☒ Cond Good ☒ Iced / Refrig ☒ CM / CTU

Field Sample ID (record field data for each sample in space below)	Start		End		Composite Type	Sample Matrix	Container(s)				LAB USE ONLY BELOW (initials <u>KS</u>)				
	Date	Time	Date	Time			Bottle Count	Volume (Size in L)	Type (+)	Preservative(s) *	Cooler ID	pH Check	in S	WORK ORDER	
	<u>7-5-23</u>	<u>14:00</u>			<u>Enviro</u>	<u>DW</u>	<u>1</u>	<u>2</u>	<u>P</u>	<u>1</u>	<u>CT</u>			<u>6023248</u>	
Analysis Requested & Comments: <u>CLINARO #1 CHLORIDE, COND., FLUORIDE, IRON, NITRATE (AS NITROGEN), MANGANESE, PH, SULFATE, TOTAL HARDNESS, TDS, NO2</u>							<u>1</u>	<u>0.5</u>	<u>P</u>	<u>1,4</u>	<u>CT</u>	<u>pH 6.2</u>		<u>-01</u>	<u>B</u>
							<u>1</u>	<u>0.25</u>	<u>P</u>	<u>1,2</u>	<u>CT</u>	<u>pH 6.2</u>			<u>C</u>
Analysis Requested & Comments: <u>CLINARO #1 P/A Coliform</u>	<u>7-5-23</u>	<u>14:00</u>			<u>Enviro</u>	<u>DW</u>	<u>1</u>	<u>0.25</u>	<u>P</u>	<u>1</u>	<u>CT</u>				<u>D</u>
							<u>1</u>	<u>0.15</u>	<u>RP</u>	<u>1,5</u>	<u>CT</u>			<u>-01</u>	<u>E</u>
Analysis Requested & Comments:															
Analysis Requested & Comments:															
Analysis Requested & Comments:															
Analysis Requested & Comments:															

Project
1064845

Printed 07/11/2023 16:45

AQU1-G

Aqua-Tech Laboratories
 John Brien
 635 Phil Gramm Blvd.
 Bryan, TX 77807-9104

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696-G023248

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1064845_r03_03_ProjectResults	SPL Kilgore Project P:1064845 C:AQU1 Project Results t:304	2
1064845_r03_06_I_ProjectTRRP	SPL Kilgore Project P:1064845 C:AQU1 Project TRRP Results Report for Class I	2
1064845_r10_05_ProjectQC	SPL Kilgore Project P:1064845 C:AQU1 Project Quality Control Groups	1
1064845_r99_09_CoC__1_of_1	SPL Kilgore CoC AQU1 1064845_1_of_1	2
Total Pages:		8

Email: Kilgore.projectmanager@spl-inc.com



Report Page 1 of 9



SAMPLE CROSS REFERENCE

Project
1064845

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Printed 7/11/2023 Page 1 of 1

Sample	Sample ID	Taken	Time	Received
2211405	G023248-01	07/05/2023	14:00:00	07/07/2023

Bottle 01 Client supplied plastic

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 300.0 2.1	01	1071399	07/10/2023	1071399	07/10/2023

Email: Kilgore.projectmanager@spl-inc.com



Report Page 2 of 9

AQU1-G

Aqua-Tech Laboratories
 John Brien
 635 Phil Gramm Blvd.
 Bryan, TX 77807-9104

Page 1 of 2

Project
1064845

Printed: 07/11/2023

696-G023248

RESULTS

Sample Results

2211405 **G023248-01**

Received: 07/07/2023

Drinking Water

Collected by: Client
 Taken: 07/05/2023

Aqua-Tech Laboratori
 14:00:00

PO:

EPA 300.0 2.1

Prepared: 1071399 07/10/2023 19:13:00 Analyzed 1071399 07/10/2023 19:13:00 KAP

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Chloride	49.6	mg/L	3.00			01
NELAC	Sulfate	42.0	mg/L	3.00			01

Sample Preparation

2211405 **G023248-01**

Received: 07/07/2023

07/05/2023

Prepared: 07/11/2023 02:04:44 Calculated 07/11/2023 02:04:44 CAL

Environmental Fee (per Project)

Verified

Cooler Return

Prepared: 07/10/2023 16:30:00 Analyzed 07/10/2023 16:30:00 DRS

Return Cooler/No bottles Require

returned



Report Page 3 of 9

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914



Page 2 of 2

Project
1064845

AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Printed: 07/11/2023

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at Ana-lab corporate laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of Ana-Lab Corp. Unless otherwise specified, these test results meet the requirements of NELAP.

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.

Bill Peery, MS, VP Technical Services



Report Page 4 of 9

Project
1064845

Printed 07/11/2023

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

MDL is Method Detection Limit (40 CFR 136 Appendix B)

MQL is the Method Quantitation Limit and corresponds to a low standard

Qualifiers:

SDL is Sample Detection Limit and is the adjusted MDL (sample specific dilutions, dry weight)
MQLADJ is the Adjusted Method Quantitation Limit (dilutions, dry weight)

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at Ana-lab corporate laboratory which holds International, Federal, and state accreditations. Please see our Websites for details. These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of Ana-Lab Corp. Unless otherwise specified, these test results meet the requirements of NELAP.

Page 11 of 15 G023248_1 ATL 051823 FIN Is 07 21 23 1128

Project

1064845

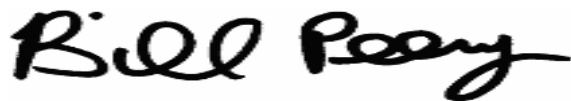
Printed 07/11/2023

696-G023248

RESULTS

AQU1

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104



Bill Peery, MS, VP Technical Services



Email: Kilgore.projectmanager@spl-inc.com

QUALITY CONTROL



Page 1 of 1

AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Project
1064845

Printed 07/11/2023

Analytical Set **1071399**

EPA 300.0 2.1

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Chloride	1071399	ND	0.0593	0.300	mg/L	125181096
Sulfate	1071399	ND	0.0605	0.300	mg/L	125181096

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Chloride	10.5	10.0	mg/L	105	90.0 - 110	125181092
Chloride	10.6	10.0	mg/L	106	90.0 - 110	125181110
Sulfate	10.5	10.0	mg/L	105	90.0 - 110	125181092
Sulfate	10.6	10.0	mg/L	106	90.0 - 110	125181110

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Chloride	1071399	5.25	5.36	5.00	85.0 - 115	105	107	mg/L	2.07	20.0
Sulfate	1071399	5.29	5.42	5.00	88.0 - 115	106	108	mg/L	2.43	20.0

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Chloride	2211388	100	100	51.2	50.0	80.0 - 120	97.6	97.6	mg/L	0	20.0
Sulfate	2211388	94.4	95.7	46.2	50.0	80.0 - 120	96.4	99.0	mg/L	2.66	20.0

* Out RPD is Relative Percent Difference: $\text{abs}(r_1 - r_2) / \text{mean}(r_1, r_2) * 100\%$

Recover% is Recovery Percent: $\text{result} / \text{known} * 100\%$

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); AWRL/MRL C - Ambient Water Reporting Limit/Minimum Reporting Limit Check Std



Report Page 7 of 9



Chain-of-Custody & Analysis Request

ATL - Bryan Facility:
635 Phil Giamm Blvd.
Bryan, TX 77807
(979) 778-3707
Fax (979) 778-3193

ATL - Austin Facility:
3512 Montopolis Drive
Austin, TX 78744
(512) 301-9559
Fax (512) 301-9552

SHIPPED TO:
AnaLab Corp. (NELAP Cert. T104704201)
2600 Dudley Road
Killebrew, TX 75662
Phone: (903) 984-0551
Fax: (903) 984-5914

C-O-C #

696 - G023248

T104704371

All analyses must be performed by a TNI approved method certified by the TCEQ. Contact ATL's sample custodian via voice and email if your methods do not meet this criteria.

Analysis Request for: Sample ID: G023248-01 Sampled: 07/05/23 14:00 Matrix: Drinking Water Laboratory ID >>

Chloride - EPA 300.0 SO4 DW - EPA 300.0

CONTAINERS SUPPLIED: (ATL indicates cooler number in parentheses for each container - only required if more than one cooler listed below.)

() G023248-01 [G] - [SUB] ANA CI SO4 0.25LP
[Split taken from -07 A]

See Attached for
Tracking # and Temp

Relinquished by (print & sign)	☒ ATL-Austin	☐ ATL-Bryan	☐ Sampler	Date	Time	Signature	Sample Info	Abbreviations:
Kaitlyn Johnson				7/6/23	15:30	[Signature]	Category: Solid Not Cooled	DW - Drinking Water NP - Non-Potable Water S - Solid CTU - Category Transfer Unknown SGP - Sterile Plastic UP - Used Plastic LG - Litter Glass
Carrier & Tracking Number	Cooler: AQU1-48 FedEx 7726 4172 1767			Date	Time	Signature	Sample Info	Aqua-Tech Comments and Special Instructions
Fed Ex				7/1/23	10:25	[Signature]	Received Lead - X - All time apply	5 DAY TAT
Received by (print & sign)	☒ Received in Lab	Date			Time	Signature	Sample Info	
Orisil Parker SFL, Inc.		7/1/23			10:25	[Signature]	Condition: Good Not Rec'd Lead	
Line below documents condition at receipt in lab (shipped to) listed above.				Thermometer ID		Please email reports to: reporting@aquatechlabs.com		
Cooler Temperature (°C)	Temp. Read (°F)	Corrected Temp. (°C)	Please return cooler(s) to: Austin Facility					
Cooler 1								
N/A	N/A	N/A						

1064845 CoC Print Group 001 of 001

ORIGIN ID: AUSA (512) 301-9559
KAITLYN JOHNSON
AQUA- TECH LAB
3512 MONTOPOLIS DR.
SUITE A
AUSTIN, TX 78735
UNITED STATES US

SHIP DATE: 05JUL23
ACTWGT: 20.00 LB
CAD: 5912604/INET4810

BILL SENDER

TO LOGIN - SAMPLES
ANA-LAB - SPL CORP
2600 DUDLEY RD

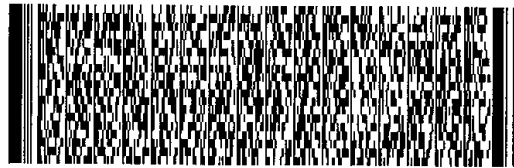
KILGORE TX 75662

(903) 984-0551

REF: MENO

INV
PO:

DEPT:

FedEx
Express

THU - 06 JUL 4:30P

TRK#
0201

7726 4172 1767

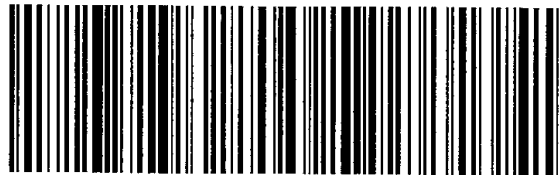
STANDARD OVERNIGHT

AH GGGA

75662

TX-US

SHV



7h 1100 c
Date Time Tech
Temp: 0.6 10.6 c

Therm#: 8443 Corr Fact: 0.0 C

Water Quality
Well No. 4

Email information for report date:
8/15/23 10:09
G023882

Apex Drilling

Attn: Michael Becker
apexdrilling.becker@yahoo.com

PO Box 867
Marble Falls, TX 78654

August 2023 price increase.

Due to the increase in operational costs, Aqua-Tech Laboratories will be implementing a slight price increase. The new price list will be effective August 1, 2023.

Aqua-Tech values you as a customer and encourages you to reach out to our accounting staff at accounting@aquatechlabs.com if you have questions.

Thank you for your business,
June M. Brien
Executive Technical Director

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193



AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

The following abbreviations indicate certification status:

NEL	TNI accredited parameter.
ANR	Accreditation not offered by the State of Texas.
DWP	Approval through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF	Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

Certificate: T104704371-22-26



TCEQ Lab ID T104704371

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

General Definitions:

NR	Not Reported.
RPD	Relative Percent Difference.
% R	Percent Recovery.
dry	Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL	The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL	The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations.
MDL	The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - *Required containers, preservation techniques, and holding times*, unless otherwise noted in this report.

Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

June M. Brien, Technical Director

The results in this report apply only to the samples analyzed. This analytical report must be reproduced in its entirety unless written permission is granted by Aqua-Tech Laboratories, Inc.

corp@aquatechlabs.com

www.aqua-techlabs.com

BRYAN FACILITY
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AUSTIN FACILITY
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Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

8/15/23 10:09

G023882

Apex Drilling Clinard #4

Collected: 07/11/23 13:00 by CLIENT
Received: 07/12/23 11:15 by Kaitlyn Johnson

Type
Grab

Matrix
Drinking Water

C-O-C #
G023882

Lab ID#	G023882-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry												
Total Dissolved Solids		450	mg/L		25.0	50.0	50.0	Austin	07/18/23 12:25 MAM	SM2540 C 2015	M163908	NEL
Nitrate as N (NO3N)		0.47	mg/L			0.020	0.020	Calc	07/20/23 11:23 BEB	SM4500-NO3-F 2011	[CALC]	NEL
Nitrite as N		<0.01	mg/L	J (0.008)	0.002	0.002	0.01	Austin	07/13/23 10:10 BEB	SM4500 NO2- B 2011	M163704	NEL
Nitrate/Nitrite as N		0.48	mg/L		0.02	0.02	0.02	Bryan	07/20/23 11:23 KMA	SM4500-NO3-F 2011	M164042	ANR
Total Hardness (EDTA) as CaCO3		392	mg/L		1.00	2.00	2.00	Bryan	07/17/23 10:25 ATG	SM2340 C 2011	M163856	NEL
Fluoride		0.42	mg/L		0.04	0.04	0.10	Bryan	07/17/23 08:28 ATG	SM4500-F C 2011	M163832	NEL
pH, Lab		7.0	S.U.	Hold-03	0.1	0.1	4.0	Austin	07/15/23 13:15 MSA	SM4500-H+ B 2011	M163817	DWP
Temperature @ pH Analysis		21.9	Deg. C			N/A	N/A	Austin	07/15/23 13:15 MSA	SM4500-H+ B 2011	M163817	DWP
Specific Conductance (adjusted to 25.0°C)		757	uS/cm		2.00	2.00	2.00	Austin	07/15/23 14:35 MSA	SM2510 B 2011	M163822	DWP,NEL
Microbiological Analyses												
Total Coliforms		Absent	N/A		N/A	N/A	N/A	Austin	07/12/23 16:36 KT	SM9223 B 2004	M163677	NEL
Escherichia coli (E.coli)		Absent	N/A		N/A	N/A	N/A	Austin	07/12/23 16:36 KT	SM9223 B 2004	M163677	NEL
Metals (Total)												
Iron		0.092	mg/L		0.002	0.002	0.010	Bryan	07/19/23 17:03 ABM	EPA 200.7 R4.4	M163740	NEL
Manganese		28.7	ug/L		0.108	0.110	0.408	Bryan	07/25/23 18:32 ABM	EPA 200.8 R5.4	M164227	NEL

Split taken from bottle G023882-01 A for bottles G023882-01 F and G for F, Cl, and SO4 analyses.

Please see the attached subcontract report for subcontracted data.

Explanation of Notes

Hold-03 This parameter was outside of EPA holding at the time the sample was received in the laboratory.

J Analyte detected below the SQL but above the MDL.

BRYAN FACILITY
 635 Phil Gramm Boulevard
 Bryan, TX 77807
 Phone: (979) 778-3707
 Fax: (979) 778-3193



AUSTIN FACILITY
 3512 Montopolis Dr. Suite A
 Austin, TX 78744
 Phone: (512) 301-9559
 Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

8/15/23 10:09

G023882

General Chemistry - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Fluoride - SM4500-F C 2011												<i>Bryan</i>
Initial Cal Check	0.39	mg/L			07/17/23 08:28 ATG	0.390		99.5	90 - 110			2307162
Blank	<0.10	mg/L	0.04	0.10	07/17/23 08:28 ATG							M163832
LCS	0.80	mg/L	0.04	0.10	07/17/23 08:28 ATG	0.798		100	90 - 110			M163832
LCS Dup	0.80	mg/L	0.04	0.10	07/17/23 08:28 ATG	0.798		100	90 - 110	0.375	10	M163832
Matrix Spike	1.24	mg/L	0.04	0.10	07/17/23 08:28 ATG	0.798	0.42	103	78.6 - 129			M163832
Matrix Spike Dup	1.25	mg/L	0.04	0.10	07/17/23 08:28 ATG	0.798	0.42	105	78.6 - 129	1.21	10	M163832
MRL Check	0.10	mg/L	0.04	0.10	07/17/23 08:28 ATG	0.0997		98.9	75 - 125			M163832
Nitrate/Nitrite as N - SM4500-NO3-F 2011												<i>Bryan</i>
Initial Cal Check	1.2	mg/L			07/20/23 11:23 KMA	1.18		105	90 - 110			2307213
Low Cal Check	0.02	mg/L			07/20/23 11:23 KMA	0.0200		110	70 - 130			2307213
Blank	<0.02	mg/L	0.02	0.02	07/20/23 11:23 KMA							M164042
LCS	0.45	mg/L	0.02	0.02	07/20/23 11:23 KMA	0.500		90.6	85 - 115			M164042
LCS Dup	0.46	mg/L	0.02	0.02	07/20/23 11:23 KMA	0.500		91.0	85 - 115	0.441	6.1	M164042
Matrix Spike	0.67	mg/L	0.02	0.02	07/20/23 11:23 KMA	0.500	0.21	91.6	80 - 120			M164042
Matrix Spike Dup	0.67	mg/L	0.02	0.02	07/20/23 11:23 KMA	0.500	0.21	92.2	80 - 120	0.653	8.35	M164042
Nitrite as N - SM4500 NO2- B 2011												<i>Austin</i>
Initial Cal Check	0.10	mg/L			07/13/23 10:10 BEB	0.104		99.9	90 - 110			2307130
Blank	<0.01	mg/L	0.002	0.01	07/13/23 10:10 BEB							M163704
LCS	0.07	mg/L	0.002	0.01	07/13/23 10:10 BEB	0.0800		93.6	90 - 110			M163704
LCS Dup	0.08	mg/L	0.002	0.01	07/13/23 10:10 BEB	0.0800		101	90 - 110	7.46	7.76	M163704
Matrix Spike	0.09	mg/L	0.002	0.01	07/13/23 10:10 BEB	0.0800	0.008	97.8	63.1 - 112			M163704
Matrix Spike Dup	0.09	mg/L	0.002	0.01	07/13/23 10:10 BEB	0.0800	0.008	99.1	63.1 - 112	1.30	6.92	M163704
MRL Check	0.01	mg/L	0.002	0.01	07/13/23 10:10 BEB	0.0100		103	70 - 130			M163704
Initial Cal Check	0.11	mg/L			10/05/22 12:13 BEB	0.100		107	90 - 110			2210038
pH, Lab - SM4500-H+ B 2011												<i>Austin</i>
Initial Cal Check	6.8	pH Units			07/15/23 13:15 MSA	6.86		99.9	95 - 105			2307154
Initial Cal Check	9.1	pH Units			07/15/23 13:15 MSA	9.18		99.1	95 - 105			2307154
Duplicate	7.1	pH Units	0.1	4.0	07/15/23 13:15 MSA		7.0			0.426	1.16	M163817
Specific Conductance (adjusted to 25.0°C) - SM2510 B 2011												<i>Austin</i>
	522	uS/cm			07/15/23 14:35 MSA	545		95.8	90 - 110			2307158
Blank	<2.00	uS/cm	2.00	2.00	07/15/23 14:35 MSA							M163822
Duplicate	769	uS/cm	2.00	2.00	07/15/23 14:35 MSA		769			0.00	1.79	M163822
LCS	1400	uS/cm	2.00	2.00	07/15/23 14:35 MSA	1410		99.6	96.2 - 104			M163822

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193



AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

8/15/23 10:09

G023882

General Chemistry - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Total Dissolved Solids - SM2540 C 2015												<i>Austin</i>
Blank	<25.0	mg/L	25.0	25.0	07/18/23 12:25 MAM							M163908
Duplicate	252	mg/L	50.0	50.0	07/18/23 12:25 MAM		278			9.81	13.9	M163908
Reference	460	mg/L	100	100	07/18/23 12:25 MAM	500		92.0	66 - 140			M163908
Total Hardness (EDTA) as CaCO3 - SM2340 C 2011												<i>Bryan</i>
Initial Cal Check	70.8	mg/L			07/17/23 10:25 ATG	64.2		110	90 - 110			2307166
Blank	<1.00	mg/L	1.00	1.00	07/17/23 10:25 ATG							M163856
Duplicate	1810	mg/L	10.0	10.0	07/17/23 10:25 ATG		1830			1.14	9.52	M163856
LCS	95.8	mg/L	1.00	1.00	07/17/23 10:25 ATG	100		95.8	90 - 110			M163856
LCS Dup	97.9	mg/L	1.00	1.00	07/17/23 10:25 ATG	100		97.9	90 - 110	2.16	6.47	M163856
Matrix Spike	2810	mg/L	10.0	10.0	07/17/23 10:25 ATG	1000	1830	97.9	87.6 - 111			M163856
MRL Check	4.17	mg/L	1.00	1.00	07/17/23 10:25 ATG	4.00		104	70 - 130			M163856

Metals (Total) - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Iron - EPA 200.7 R4.4												<i>Bryan</i>
Blank	<0.010	mg/L	0.002	0.010	07/19/23 16:07 ABM							M163740
LCS	1.04	mg/L	0.002	0.010	07/19/23 16:10 ABM	1.00		104	84.5 - 115.4			M163740
LCS Dup	1.05	mg/L	0.002	0.010	07/19/23 16:13 ABM	1.00		105	84.5 - 115.4	0.499	20	M163740
Duplicate	<0.010	mg/L	0.002	0.010	07/19/23 16:17 ABM		<0.010				20	M163740
Matrix Spike	1.03	mg/L	0.002	0.010	07/19/23 16:20 ABM	1.00	<0.010	103	69.5 - 130.4			M163740
Manganese - EPA 200.8 R5.4												<i>Bryan</i>
Blank	<0.408	ug/L	0.110	0.408	07/25/23 17:45 ABM							M164227
LCS	9.75	ug/L	0.111	0.412	07/25/23 17:53 ABM	10.0		97.5	84.5 - 115.4			M164227
LCS Dup	9.77	ug/L	0.111	0.412	07/25/23 18:01 ABM	10.0		97.7	84.5 - 115.4	0.221	20	M164227
Duplicate	49.7	ug/L	0.110	0.408	07/25/23 18:09 ABM		49.2			0.979	20	M164227
Matrix Spike	61.0	ug/L	0.111	0.412	07/25/23 18:17 ABM	10.0	49.2	118	69.5 - 130.4			M164227

Microbiological Analyses - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Log10 Comparison Range	Control Limit	Batch
Escherichia coli (E.coli) - SM9223 B 2004												<i>Austin</i>
Blank	Absent	N/A	N/A	N/A	07/12/23 16:36 KT							M163677

BRYAN FACILITY
 635 Phil Gramm Boulevard
 Bryan, TX 77807
 Phone: (979) 778-3707
 Fax: (979) 778-3193



AUSTIN FACILITY
 3512 Montopolis Dr. Suite A
 Austin, TX 78744
 Phone: (512) 301-9559
 Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

8/15/23 10:09

G023882

Microbiological Analyses - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Log10 Comparison Range	Control Limit	Batch
Total Coliforms - SM9223 B 2004												<i>Austin</i>
Blank	Absent	N/A	N/A	N/A	07/12/23 16:36 KT							M163677

Preparation Procedures - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Turbidity - SM2130 B 2011												<i>Bryan</i>
Initial Cal Check	10	NTU			06/14/23 09:24 HDH	9.52		107	90 - 110			2306185
Low Cal Check	0.5	NTU			06/14/23 09:24 HDH	0.400		130	70 - 130			2306185
Low Cal Check	1.3	NTU			06/14/23 09:24 HDH	1.00		130	70 - 130			2306185

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
G023882-01										
Escherichia coli (E.coli)	SM9223 B 2004	7/12/23 16:31 KT	Austin	E	100	mL	100	mL	1	M163677
Fluoride	SM4500-F C 2011	7/17/23 8:28 ATG	Bryan	F	25.0	mL	25.0	mL	1	M163832
Iron	EPA 200.7 R4.4	7/18/23 9:15 ABM	Bryan	B	10.0	mL	10.2	mL	1	M163740
Manganese	EPA 200.8 R5.4	7/25/23 10:00 ABM	Bryan	B	10.0	mL	10.2	mL	1	M164227
Nitrate/Nitrite as N	SM4500-NO3-F 2011	7/20/23 9:35 KMA	Bryan	C	10.0	mL	10.0	mL	1	M164042
Nitrite as N	SM4500 NO2- B 2011	7/13/23 10:10 BEB	Austin	E	25.0	mL	25.0	mL	1	M163704
pH, Lab	SM4500-H+ B 2011	7/15/23 13:15 MSA	Austin	A	50.0	mL	50.0	mL	1	M163817
Specific Conductance (adjusted to 25.0°C)	SM2510 B 2011	7/15/23 14:35 MSA	Austin	A	25.0	mL	25.0	mL	1	M163822
Subcontract	Sub Contract Data Entry	7/20/23 15:03 PMY	Bryan	-	-	-	-	-	-	M164083
Temperature @ pH Analysis	SM4500-H+ B 2011	7/15/23 13:15 MSA	Austin	A	50.0	mL	50.0	mL	1	M163817
Total Coliforms	SM9223 B 2004	7/12/23 16:31 KT	Austin	E	100	mL	100	mL	1	M163677
Total Dissolved Solids	SM2540 C 2015	7/18/23 12:25 MAM	Austin	A	50.0	mL	100	mL	1	M163908
Total Hardness (EDTA) as CaCO3	SM2340 C 2011	7/17/23 10:25 ATG	Bryan	B	25.0	mL	50.0	mL	1	M163856
Turbidity	SM2130 B 2011	7/14/23 14:09 ABM	Bryan	B	10.0	mL	10.0	mL	1	M163787

AQUA-TECH
LABORATORIES

Chain-of-Custody and Analysis Request

Client /Project: CLINARD Apex Drilling / DW well Completion

Contact Info

Name: APEX DRILLING
Address: _____
City: _____ State: _____ ZIP: _____
Phone / Email: _____

Definitions
DW - Drinking Water (+) Container Type
NP - Non-Potable Water P - Plastic
S - Solid G - Glass
T - Teflon®
CM - Custody Maintained
CTU - Custody Transfer Unbroken
CT - Corrected Temperature
SUB - Subcontracted Analysis

By relinquishing the samples listed below to Aqua-Tech, the client agrees to the following terms.

Samples will be analyzed by a method that is within Aqua-Tech Laboratories' NELAC fields of accreditation. Analytes requiring a certified method that is not within Aqua-Tech's fields of accreditation will be subcontracted to a NELAC certified lab that is certified for that method. Clients will be notified of the subcontract lab's details. Other analytes not requiring accreditation will be analyzed by a compendial method. If a specific method is required, the client will note the method in the "Analysis Requested" column. The client approves all method modifications documented by Aqua-Tech or the subcontract lab. A current list of Aqua-Tech's NELAC fields of accreditation and other methods are available on request.

Client Comments:

*** Preservatives**
1 < 6 °C (unfrozen) Cooler ID: CT
2 H2SO4 07942023 Temperature (°C): 5.0 / 5.1 CT
3 HCl
4 HNO3 0799021 Preservation Correct? YES NO YES NO
5 Na2S2O3 Post Preservatives? YES NO YES NO
6 NaOH Thermometer ID: 0704480
7 pH Paper ID: 0302305

Receipt in Lab

Lab Comments: Splits taken from bottles 6023882-01 A for bottles 6023882-01 F, G for FI, CI, and SO4 analysis, etc.

Aqua-Tech Laboratories, Inc.
Austin
3512 Montopolis Dr. Suite A
Austin, TX 78744
512.301.9559
Bryan
635 Phil Gramm Blvd.
Bryan, TX 77807
979.778.3707

Work Order / C-O-C
6023882
Page 1 of 1
V-0023 R03

TCEQ Lab ID:
T104704371

Test results meet all accreditation/certification requirements unless stated otherwise.

Sample Custody

Relinquished by (print & sign) M. BECKER
Received by (print & sign) _____
Relinquished by (print & sign) _____
Received by (print & sign) Kaitlyn Johnson

☒ Sampler
☐ Client
☐ ATL Field
☐ Client
☐ ATL Field
☐ Client
☐ ATL Field
☐ Client
☐ ATL Field
☒ Lab

Date 7-12-23
Time 11:15
Date _____
Time _____
Date _____
Time _____
Date 7/12/23
Time 1115

☒ Iced / Refrig
☐ Custody Sealed
☐ Iced / Refrig
☐ CM / CTU
☐ Iced / Refrig
☐ CM / CTU
☐ Iced / Refrig
☐ CM / CTU / sealed
☒ Cond Good
☒ Iced / Refrig
☒ CM / CTU

Field Sample ID (record field data for each sample in space below)	Start		End		Composite Type	Sample Matrix	Container(s)				LAB USE ONLY BELOW (initials <u>KJS</u>)					
	Date	Time	Date	Time			Bottle Count	Volume (Size in L)	Type (+)	Preservative(s) *	Cooler ID	pH Check	SUB	WORK ORDER <u>6023882</u>		
Analysis Requested & Comments: <u>CLINARD 4</u>	<u>7-11-23</u>	<u>13:00</u>			<u>GWB</u>	<u>DW</u>	1	2	P	1	<u>CT</u>	-	-	Sample <u>A</u>		
							1	0.5	P	1, 2	<u>CT</u>	<u>pH 12</u>	-		-01	Sample <u>B</u>
							1	0.25	P	1, 2	<u>CT</u>	<u>pH 12</u>	-		-	
Analysis Requested & Comments:						1	0.25	P	1	<u>CT</u>	-	-	Sample <u>D</u>			
						1	0.15	<u>AP</u>	1, 5	<u>CT</u>	-	-	-01	Sample <u>E</u> <u>3</u> <u>line too far</u>		
Analysis Requested & Comments:													Sample			
Analysis Requested & Comments:													Sample			
Analysis Requested & Comments:													Sample			

Project
1065735

Printed 07/18/2023 16:09

AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

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Email: Kilgore.projectmanager@spl-inc.com



Report Page 1 of 10



SAMPLE CROSS REFERENCE

Project
1065735

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Printed 7/18/2023 Page 1 of 1

Sample	Sample ID	Taken	Time	Received
2213398	G023882-01	07/11/2023	13:00:00	07/13/2023

Bottle 01 Client supplied plastic

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 300.0 2.1	01	1072182	07/13/2023	1072182	07/13/2023

Email: Kilgore.projectmanager@spl-inc.com



Report Page 2 of 10

AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Page 1 of 2

Project
1065735

Printed: 07/18/2023

RESULTS

Sample Results

2213398 **G023882-01**

Received: 07/13/2023

Drinking Water

Collected by: Client
Taken: 07/11/2023

Aqua-Tech Laboratori
13:00:00

PO:

EPA 300.0 2.1

Prepared: 1072182 07/13/2023 20:13:00 Analyzed 1072182 07/13/2023 20:13:00 KAP

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Chloride	11.5	mg/L	3.00			01
NELAC	Sulfate	17.3	mg/L	3.00			01

Sample Preparation

2213398 **G023882-01**

Received: 07/13/2023

07/11/2023

Cooler Return

Prepared: 01/10/1900 16:30:00 Analyzed 01/10/1900 16:30:00 DRS

Return Cooler/No bottles Require

returned

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of Ana-Lab Corp. Unless otherwise specified, these test results meet the requirements of NELAC.

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



Report Page 3 of 10

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914



Page 2 of 2

Project
1065735

Printed: 07/18/2023

Bill Peery

Bill Peery, MS, VP Technical Services



Report Page 4 of 10

1065735

Printed 07/18/2023

DW

RESULTS

AQU1

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

CAS	Parameter	Results	MDL	SDL	MQL	MQLAdj	Flag	Units	Target	Bottle	Dilute
Drinking Water		Ion Chromatography								EPA 300.0 2.1	
2213398	G023882-01										
Collection:			07/11/2023		13:00:00	Client			Received:	07/13/2023	
Prepared:		1072182									
			Analyzed:		1072182		7/13/23	20:13:00			
Chloride		11.5	0.0593	0.593	0.300	3.00	mg/L	250 Secondary Standard	01	10.00	
Sulfate		17.3	0.0605	0.605	0.300	3.00	mg/L	250 Secondary Standard	01	10.00	

SDL is Sample Detection Limit and is the adjusted MDL (sample specific dilutions, dry weight)

MQLADJ is the Adjusted Method Quantitation Limit (dilutions, dry weight)

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc. - Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of Ana-Lab Corp. Unless otherwise specified, these test results meet the requirements of NELAC.

Email: Kilgore.projectmanager@spl-inc.com

Project

1065735

Printed 07/18/2023

DW

RESULTS

AQU1

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Bill Peery

Bill Peery, MS, VP Technical Services



Email: Kilgore.projectmanager@spl-inc.com

QUALITY CONTROL



AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Page 1 of 1

Project
1065735

Printed 07/18/2023

Analytical Set **1072182**

EPA 300.0 2.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1072182	ND	0.0593	0.300	mg/L	125202204
Sulfate	1072182	0.119	0.0605	0.300	mg/L	125202204

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chloride	10.7	10.0	mg/L	107	90.0 - 110	125202199
Chloride	11.0	10.0	mg/L	110	90.0 - 110	125202215
Chloride	10.5	10.0	mg/L	105	90.0 - 110	125202231
Sulfate	10.4	10.0	mg/L	104	90.0 - 110	125202199
Sulfate	10.4	10.0	mg/L	104	90.0 - 110	125202215
Sulfate	10.4	10.0	mg/L	104	90.0 - 110	125202231

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	1072182	5.34	5.31	5.00	85.0 - 115	107	106	mg/L	0.563	20.0
Sulfate	1072182	5.72	5.73	5.00	88.0 - 115	114	115	mg/L	0.175	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	2211812	58.6	58.6	55.6	5.00	80.0 - 120	60.0 *	60.0 *	mg/L	0	20.0
Sulfate	2211812	80.5	80.1	81.7	5.00	80.0 - 120	-24.0 *	-32.0 *	mg/L	0.498	20.0
Chloride	2213336	5.38	5.47	ND	5.00	80.0 - 120	108	109	mg/L	1.66	20.0
Sulfate	2213336	7.22	7.32	ND	5.00	80.0 - 120	144 *	146 *	mg/L	1.38	20.0

* Out RPD is Relative Percent Difference: $\text{abs}(r_1 - r_2) / \text{mean}(r_1, r_2) * 100\%$

Recover% is Recovery Percent: $\text{result} / \text{known} * 100\%$

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); AWRL/MRL C - Ambient Water Reporting Limit/Minimum Reporting Limit Check Std



Report Page 7 of 10



Chain-of-Custody & Analysis Request

ATL - Bryan Facility:
636 Phil Graham Blvd
Bryan, TX 77807
(979) 778-3707
Fax: (979) 778-3193

ATL - Austin Facility:
3512 Monticello Drive
Austin, TX 78744
(512) 301-9559
Fax: (512) 301-9552

SHIPPED TO:
Ana-Lab Corp. (NELAP Cert. T104704201)
2800 Dudley Road
Kilgore, TX 75662
Phone: (903) 984-0551
Fax: (903) 984-5914

C-O-C #
283 - G023882



All analyses must be performed by a TNI approved method certified by the TCEQ. Contact ATL's sample custodian via voice and email if your methods do not meet this criteria.

Analysis Request for: **Sample ID: G023882-01** Sampled: 07/11/23 13:00 Matrix: Drinking Water Laboratory ID >> **2213398**
Chloride - EPA 300.0 SO4 DW - EPA 300.0

CONTAINERS SUPPLIED: () G023882-01 [G] - [SUB] ANA CI SO4 0.25LP (ATL indicates cooler number in parentheses for each container - only required if more than one cooler listed below.)
[Split taken from -01 A]

See next page(s) for list of analytes requested.

See Attached for
Tracking # and Temp

Relinquished by (print & sign) ☒ ATL - Austin ☐ ATL - Bryan ☐ Sample		Date		Time		☒ Cool ☐ Not Cool ☐ Not Chilled		Abbreviations: DW - Drinking Water NP - Non-Potable Water S - Solid CTU - Custody Transfer Unitaker JG - Juice Glass SP - Spill Plastic LP - Litter Plastic LG - Litter Glass	
Kaitlyn Johnson		7/11/23		1:00		☒ Cool ☐ Not Cool ☐ Not Chilled		Aqua-Tech Comments and Special Instructions 5 DAY TAI	
Carrier & Tracking Number		Cooler 1		AQU5 FedEx 7726 8688 0558		Sample Info ☒ all that apply ☐ CTU ☐ Condition Good ☐ Not Rec'd Incl			
Received by (print & sign) ☒ Received into Lab		Date		Time		Please email reports to: reporting@aquatechlabs.com		Please return cooler(s) to: Austin Facility	
Christy Parker SFL, Inc. Line below documents condition of receipt in lab (shipped to) listed above. Cooler Temperature (°C) Temp Read (°F) Corrected Temp (°C) Thermometer ID		7/13/23		1:05					
Cooler 1		N/A		N/A					



ATL - Bryan Facility:
535 Phil Gramm Blvd.
Bryan, TX 77807
(979) 778-5707
Fax (979) 778-5193

ATL - Austin Facility:
3512 Monopoli Drive
Austin, TX 78744
(512) 381-8559
Fax (512) 301-8552

C:\ELMNT\Printsco_ATL_120522.rpt

Chain-of-Custody & Analysis Request

C-O-C #

283 - G023882

T104704371

Page 2 of 2

All analyses must be performed by a TNI approved method certified by the TCEQ. Contact ATL's sample custodian via voice and email if your methods do not meet this criteria.

Analytes Requested for Multiple Component Tests

G023882-01

Chloride EPA 300.0

Chloride

SO4 DW EPA 300.0

Sulfate as SO4



1065735 CoC Print Group 001 of 001

ORIGIN ID: AUSA KAITLYN JOHNSON AQUA- TECH LAB 3512 MONTOPOLIS DR. SUITE A AUSTIN, TX 78735 UNITED STATES US	(512) 301-9559	SHIP DATE: 10JUL23 ACTWGT: 30.00 LB CAD: 5912694ANET4610 DIMS: 25x14x14 IN BILL SENDER
TO LOGIN - SAMPLES ANA-LAB - SPL CORP 2600 DUDLEY RD KILGORE TX 75662		
(903) 984-0551 RFF, MEMO BY PO		
DEPT		
7/13 1020 JLB Date Time Tech Temp: 0.8/0.8 C Therm#: 6443 Corr Fact: 0.0 C		
FedEx Express E		
TUE - 11 JUL 4:30P STANDARD OVERNIGHT		
TRK# 7726 8688 0558 0201		
AH GGGA 75662 TX-US SHV		
		

Water Quality

Well No. 5

Email information for report date:
7/31/23 16:26
G024740

Apex Drilling

Attn: Michael Becker
apexdrilling.becker@yahoo.com

PO Box 867
Marble Falls, TX 78654

August 2023 price increase.

Due to the increase in operational costs, Aqua-Tech Laboratories will be implementing a slight price increase. The new price list will be effective August 1, 2023.

Aqua-Tech values you as a customer and encourages you to reach out to our accounting staff at accounting@aquatechlabs.com if you have questions.

Thank you for your business,
June M. Brien
Executive Technical Director

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193



AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

The following abbreviations indicate certification status:

NEL	TNI accredited parameter.
ANR	Accreditation not offered by the State of Texas.
DWP	Approval through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF	Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

Certificate: T104704371-22-26



TCEQ Lab ID T104704371

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

General Definitions:

NR	Not Reported.
RPD	Relative Percent Difference.
% R	Percent Recovery.
dry	Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL	The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL	The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations.
MDL	The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - *Required containers, preservation techniques, and holding times*, unless otherwise noted in this report.

Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

A handwritten signature in black ink that reads 'June M. Brien'.
June M. Brien, Technical Director

The results in this report apply only to the samples analyzed. This analytical report must be reproduced in its entirety unless written permission is granted by Aqua-Tech Laboratories, Inc.

corp@aquatechlabs.com

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Analytical Report

Apex Drilling

Report Printed:

7/31/23 16:26

G024740

Apex Drilling Clinard #5

Collected: 07/18/23 13:00 by CLIENT
Received: 07/19/23 15:00 by Kaitlyn Johnson

Type
Grab

Matrix
Drinking Water

C-O-C #
G024740

Lab ID#	G024740-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry												
Total Dissolved Solids	440	mg/L			25.0	50.0	50.0	Austin	07/21/23 13:27 MAM	SM2540 C 2015	M164143	NEL
Nitrate as N (NO3N)	0.029	mg/L				0.020	0.020	Calc	07/26/23 11:12 BEB	SM4500-NO3-F 2011	[CALC]	NEL
Nitrite as N	<0.01	mg/L		J (0.005)	0.002	0.002	0.01	Austin	07/20/23 08:58 BEB	SM4500 NO2- B 2011	M164032	NEL
Nitrate/Nitrite as N	0.03	mg/L			0.02	0.02	0.02	Bryan	07/26/23 11:12 KMA	SM4500-NO3-F 2011	M164297	ANR
Total Hardness (EDTA) as CaCO3	374	mg/L			1.00	2.00	2.00	Bryan	07/24/23 10:27 ATG	SM2340 C 2011	M164196	NEL
Fluoride	0.65	mg/L			0.04	0.04	0.10	Bryan	07/24/23 08:42 ATG	SM4500-F C 2011	M164171	NEL
pH, Lab	7.3	S.U.		Hold-03, RPD-01	0.1	0.1	4.0	Austin	07/21/23 09:11 SR	SM4500-H+ B 2011	M164112	DWP
Temperature @ pH Analysis	22.1	Deg. C				N/A	N/A	Austin	07/21/23 09:11 SR	SM4500-H+ B 2011	M164112	DWP
Specific Conductance (adjusted to 25.0°C)	710	uS/cm			2.00	2.00	2.00	Austin	07/24/23 07:50 MSA	SM2510 B 2011	M164162	DWP,NEL
Microbiological Analyses												
Total Coliforms	Absent	N/A			N/A	N/A	N/A	Austin	07/19/23 16:48 KT	SM9223 B 2004	M164019	NEL
Escherichia coli (E.coli)	Absent	N/A			N/A	N/A	N/A	Austin	07/19/23 16:48 KT	SM9223 B 2004	M164019	NEL
Metals (Total)												
Iron	0.250	mg/L			0.002	0.002	0.010	Bryan	07/26/23 13:51 ABM	EPA 200.7 R4.4	M164229	NEL
Manganese	19.0	ug/L			0.108	0.110	0.408	Bryan	07/25/23 18:56 ABM	EPA 200.8 R5.4	M164227	NEL

Split taken from bottle G024740-01 A for bottle G024740-01 F for Fluoride analysis.

Please see the attached subcontract report for subcontracted data.

Explanation of Notes

Hold-03	This parameter was outside of EPA holding at the time the sample was received in the laboratory.
J	Analyte detected below the SQL but above the MDL.
RPD-01	Duplicate RPD is outside acceptable range. Acceptance of run is not based on matrix QC.

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Analytical Report

Apex Drilling

Report Printed:

7/31/23 16:26

G024740

General Chemistry - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Fluoride - SM4500-F C 2011												<i>Bryan</i>
Initial Cal Check	0.39	mg/L			07/24/23 08:42 ATG	0.390		101	90 - 110			2307248
Blank	<0.10	mg/L	0.04	0.10	07/24/23 08:42 ATG							M164171
LCS	0.79	mg/L	0.04	0.10	07/24/23 08:42 ATG	0.798		99.5	90 - 110			M164171
LCS Dup	0.82	mg/L	0.04	0.10	07/24/23 08:42 ATG	0.798		102	90 - 110	2.73	10	M164171
Matrix Spike	1.45	mg/L	0.04	0.10	07/24/23 08:42 ATG	0.798	0.65	101	78.6 - 129			M164171
Matrix Spike Dup	1.46	mg/L	0.04	0.10	07/24/23 08:42 ATG	0.798	0.65	102	78.6 - 129	1.24	10	M164171
MRL Check	0.10	mg/L	0.04	0.10	07/24/23 08:42 ATG	0.0997		101	75 - 125			M164171
Nitrate/Nitrite as N - SM4500-NO3-F 2011												<i>Bryan</i>
Initial Cal Check	1.2	mg/L			07/26/23 11:12 KMA	1.18		102	90 - 110			2307272
Low Cal Check	0.02	mg/L			07/26/23 11:12 KMA	0.0200		105	70 - 130			2307272
Blank	<0.02	mg/L	0.02	0.02	07/26/23 11:12 KMA							M164297
LCS	0.50	mg/L	0.02	0.02	07/26/23 11:12 KMA	0.500		100	90.1 - 115			M164297
LCS Dup	0.50	mg/L	0.02	0.02	07/26/23 11:12 KMA	0.500		101	90.1 - 115	0.596	6.1	M164297
Matrix Spike	0.54	mg/L	0.02	0.02	07/26/23 11:12 KMA	0.500	0.04	101	84.8 - 120			M164297
Matrix Spike Dup	0.54	mg/L	0.02	0.02	07/26/23 11:12 KMA	0.500	0.04	101	84.8 - 120	0.396	8.35	M164297
Nitrite as N - SM4500 NO2- B 2011												<i>Austin</i>
Initial Cal Check	0.10	mg/L			07/20/23 08:58 BEB	0.104		98.3	90 - 110			2307215
Blank	<0.01	mg/L	0.002	0.01	07/20/23 08:58 BEB							M164032
LCS	0.08	mg/L	0.002	0.01	07/20/23 08:58 BEB	0.0800		97.9	90 - 110			M164032
LCS Dup	0.08	mg/L	0.002	0.01	07/20/23 08:58 BEB	0.0800		98.7	90 - 110	0.869	7.76	M164032
Matrix Spike	0.08	mg/L	0.002	0.01	07/20/23 08:58 BEB	0.0800	0.005	90.5	63.1 - 112			M164032
Matrix Spike Dup	0.08	mg/L	0.002	0.01	07/20/23 08:58 BEB	0.0800	0.005	94.8	63.1 - 112	4.61	6.92	M164032
MRL Check	0.01	mg/L	0.002	0.01	07/20/23 08:58 BEB	0.0100		100	70 - 130			M164032
Initial Cal Check	0.11	mg/L			10/05/22 12:13 BEB	0.100		107	90 - 110			2210038
pH, Lab - SM4500-H+ B 2011												<i>Austin</i>
Initial Cal Check	6.9	pH Units			07/21/23 09:11 SR	6.86		100	95 - 105			2307235
Initial Cal Check	9.1	pH Units			07/21/23 09:11 SR	9.18		99.1	95 - 105			2307235
Duplicate	5.8	pH Units	RPD-01	0.1	07/21/23 09:11 SR		6.1			5.24	1.16	M164112
Specific Conductance (adjusted to 25.0°C) - SM2510 B 2011												<i>Austin</i>
Initial Cal Check	510	uS/cm			07/24/23 07:50 MSA	545		93.6	90 - 110			2307244
Blank	<2.00	uS/cm	2.00	2.00	07/24/23 07:50 MSA							M164162
Duplicate	28.2	uS/cm	2.00	2.00	07/24/23 07:50 MSA		27.9			1.07	1.79	M164162
LCS	1410	uS/cm	2.00	2.00	07/24/23 07:50 MSA	1410		99.8	96.2 - 104			M164162

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Analytical Report

Apex Drilling

Report Printed:

7/31/23 16:26

G024740

General Chemistry - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Total Dissolved Solids - SM2540 C 2015												<i>Austin</i>
Blank	<25.0	mg/L	25.0	25.0	07/21/23 13:27 MAM							M164143
Duplicate	448	mg/L	50.0	50.0	07/21/23 13:27 MAM		440			1.80	13.9	M164143
Reference	600	mg/L	100	100	07/21/23 13:27 MAM	500		120	66 - 140			M164143
Total Hardness (EDTA) as CaCO3 - SM2340 C 2011												<i>Bryan</i>
Initial Cal Check	63.7	mg/L			07/24/23 10:27 ATG	64.2		99.3	90 - 110			2307254
Blank	<1.00	mg/L	1.00	1.00	07/24/23 10:27 ATG							M164196
Duplicate	59.3	mg/L	1.00	1.00	07/24/23 10:27 ATG		61.5			3.64	9.52	M164196
LCS	98.9	mg/L	1.00	1.00	07/24/23 10:27 ATG	100		98.9	90 - 110			M164196
LCS Dup	96.7	mg/L	1.00	1.00	07/24/23 10:27 ATG	100		96.7	90 - 110	2.25	6.47	M164196
Matrix Spike	154	mg/L	1.00	1.00	07/24/23 10:27 ATG	100	61.5	92.3	87.6 - 111			M164196
MRL Check	4.40	mg/L	1.00	1.00	07/24/23 10:27 ATG	4.00		110	70 - 130			M164196

Metals (Total) - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Iron - EPA 200.7 R4.4												<i>Bryan</i>
Blank	<0.010	mg/L	0.002	0.010	07/26/23 13:27 ABM							M164229
LCS	1.04	mg/L	0.002	0.010	07/26/23 13:30 ABM	1.00		104	84.5 - 115.4			M164229
LCS Dup	1.03	mg/L	0.002	0.010	07/26/23 13:33 ABM	1.00		103	84.5 - 115.4	0.593	20	M164229
Duplicate	<0.010	mg/L	0.002	0.010	07/26/23 13:37 ABM		<0.010			14.4	20	M164229
Matrix Spike	1.03	mg/L	0.002	0.010	07/26/23 13:40 ABM	1.00	0.003	103	69.5 - 130.4			M164229
Manganese - EPA 200.8 R5.4												<i>Bryan</i>
Blank	<0.408	ug/L	0.110	0.408	07/25/23 17:45 ABM							M164227
LCS	9.75	ug/L	0.111	0.412	07/25/23 17:53 ABM	10.0		97.5	84.5 - 115.4			M164227
LCS Dup	9.77	ug/L	0.111	0.412	07/25/23 18:01 ABM	10.0		97.7	84.5 - 115.4	0.221	20	M164227
Duplicate	49.7	ug/L	0.110	0.408	07/25/23 18:09 ABM		49.2			0.979	20	M164227
Matrix Spike	61.0	ug/L	0.111	0.412	07/25/23 18:17 ABM	10.0	49.2	118	69.5 - 130.4			M164227

Microbiological Analyses - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Log10 Comparison Range	Control Limit	Batch
Escherichia coli (E.coli) - SM9223 B 2004												<i>Austin</i>
Blank	Absent	N/A	N/A	N/A	07/19/23 16:48 KT							M164019

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Analytical Report

Apex Drilling

Report Printed:

7/31/23 16:26

G024740

Microbiological Analyses - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Log10 Comparison Range	Control Limit	Batch
Total Coliforms - SM9223 B 2004												<i>Austin</i>
Blank	Absent	N/A	N/A	N/A	07/19/23 16:48 KT							M164019

Preparation Procedures - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Turbidity - SM2130 B 2011												<i>Bryan</i>
Initial Cal Check	10	NTU			06/14/23 09:24 HDH	9.52		107	90 - 110			2306185
Low Cal Check	0.5	NTU			06/14/23 09:24 HDH	0.400		130	70 - 130			2306185
Low Cal Check	1.3	NTU			06/14/23 09:24 HDH	1.00		130	70 - 130			2306185

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
G024740-01										
Escherichia coli (E.coli)	SM9223 B 2004	7/19/23 16:41 KT	Austin	E	100	mL	100	mL	1	M164019
Fluoride	SM4500-F C 2011	7/24/23 8:42 ATG	Bryan	F	25.0	mL	25.0	mL	1	M164171
Iron	EPA 200.7 R4.4	7/26/23 10:45 ABM	Bryan	B	10.0	mL	10.2	mL	1	M164229
Manganese	EPA 200.8 R5.4	7/25/23 10:00 ABM	Bryan	B	10.0	mL	10.2	mL	1	M164227
Nitrate/Nitrite as N	SM4500-NO3-F 2011	7/26/23 9:40 KMA	Bryan	C	10.0	mL	10.0	mL	1	M164297
Nitrite as N	SM4500-NO2- B 2011	7/20/23 8:58 BEB	Austin	A	25.0	mL	25.0	mL	1	M164032
pH, Lab	SM4500-H+ B 2011	7/21/23 9:11 SR	Austin	A	50.0	mL	50.0	mL	1	M164112
Specific Conductance (adjusted to 25.0°C)	SM2510 B 2011	7/24/23 7:50 MSA	Austin	A	25.0	mL	25.0	mL	1	M164162
Subcontract	Sub Contract Data Entry	7/31/23 9:54 PMY	Bryan	-	-	-	-	-	-	M164489
Temperature @ pH Analysis	SM4500-H+ B 2011	7/21/23 9:11 SR	Austin	A	50.0	mL	50.0	mL	1	M164112
Total Coliforms	SM9223 B 2004	7/19/23 16:41 KT	Austin	E	100	mL	100	mL	1	M164019
Total Dissolved Solids	SM2540 C 2015	7/21/23 13:27 MAM	Austin	A	50.0	mL	100	mL	1	M164143
Total Hardness (EDTA) as CaCO3	SM2340 C 2011	7/24/23 10:27 ATG	Bryan	B	25.0	mL	50.0	mL	1	M164196
Turbidity	SM2130 B 2011	7/24/23 8:32 HDH	Bryan	B	10.0	mL	10.0	mL	1	M164167

AQUA-TECH LABORATORIES		Chain-of-Custody and Analysis Request						Aqua-Tech Laboratories, Inc. Austin 3512 Montopolis Dr. Suite A Austin, TX 78744 512.301.9559 Bryan 635 Phil Gramm Blvd. Bryan, TX 77807 979.778.3707				Work Order / C-O-C 6024740	
Client / Project: <u>CINARDO-Found Mountain / Apex Drilling</u>						TCEQ Lab ID: T104704371		Test results meet all accreditation/certification requirements unless stated otherwise.					
Contact Info Name: <u>APEX DRILLING</u> Address: _____ City: _____ State: _____ ZIP: _____ Phone / Email: _____		Definitions DW - Drinking Water NP - Non-Potable Water S - Solid CM - Custody Maintained CTU - Custody Transfer Unbroken CT - Corrected Temperature SUB - Subcontracted Analysis		(+) Container Type P - Plastic G - Glass T - Teflon®		Sample Custody							
By relinquishing the samples listed below to Aqua-Tech, the client agrees to the following terms. Samples will be analyzed by a method that is within Aqua-Tech Laboratories' NELAC fields of accreditation. Analytes requiring a certified method that is not within Aqua-Tech's fields of accreditation will be subcontracted to a NELAC certified lab that is certified for that method. Clients will be notified of the subcontract lab's details. Other analytes not requiring accreditation will be analyzed by a compendial method. If a specific method is required, the client will note the method in the "Analysis Requested" column. The client approves all method modifications documented by Aqua-Tech or the subcontract lab. A current list of Aqua-Tech's NELAC fields of accreditation and other methods are available on request.						Relinquished by (print & sign): <u>M. BECKE</u> ☒ Sampler ☐ Client ☐ ATL Field		Date: <u>7-17-23</u> Time: <u>15:00</u> ☒ Iced / Refrig ☐ Custody Sealed					
						Received by (print & sign): _____ ☐ Client ☐ ATL Field		Date: _____ Time: _____ ☐ Iced / Refrig ☐ CM / CTU					
						Relinquished by (print & sign): _____ ☐ Client ☐ ATL Field		Date: _____ Time: _____ ☐ Iced / Refrig ☐ CM / CTU					
						Received by (print & sign): _____ ☐ Client ☐ ATL Field		Date: _____ Time: _____ ☐ Iced / Refrig ☐ CM / CTU					
Relinquished by (print & sign): _____ ☐ Client ☐ ATL Field		Date: _____ Time: _____ ☐ Iced / Refrig ☐ CM / CTU		Received by (print & sign): <u>Kaitlyn Johnson</u> ☒ Lab		Date: <u>7/19/23</u> Time: <u>1500</u> ☒ Cong Good ☒ Iced / Refrig ☐ CM / CTU							
Lab Comments: <u>Split taken from bottle 6024740-01 A for better 6024740-01 F for Fluoride analysis</u>													

Field Sample ID (record field data for each sample in space below)	Start		End		Composite Type	Sample Matrix	Container(s)				LAB USE ONLY BELOW (initials <u>KJS</u>)					
	Date	Time	Date	Time			Bottle Count	Volume (Size in L)	Type (+)	Preservative(s) *	Cooler ID	pH Check	IS	WORK ORDER		
Analysis Requested & Comments: <u>CINARDO #5 Chloride, Conc., Fluoride, IRON, Nitrate (as nitrogen), MANGANESE, PH, Sulfate, Hardness, TDS, P/A total calcium</u>	<u>7-18-23</u>	<u>13:00</u>				<u>TH DW</u>	<u>1</u>	<u>2</u>	<u>P</u>	<u>1</u>	<u>CT</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>A</u>
							<u>1</u>	<u>0.5</u>	<u>P</u>	<u>1.4</u>	<u>CT</u>	<u>pH 2</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>B</u>
							<u>1</u>	<u>0.25</u>	<u>P</u>	<u>1.2</u>	<u>CT</u>	<u>pH 2</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>C</u>
							<u>1</u>	<u>0.25</u>	<u>P</u>	<u>1</u>	<u>CT</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>D</u>
Analysis Requested & Comments: <u>None</u>							<u>1</u>	<u>0.15</u>	<u>STP</u>	<u>1.5</u>	<u>CT</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>E</u>
Analysis Requested & Comments: <u>None</u>																
Analysis Requested & Comments: <u>None</u>																
Analysis Requested & Comments: <u>None</u>																

Project
1066852

Printed 07/25/2023 17:45

AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

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1066852_r03_06_I_ProjectTRRP	SPL Kilgore Project P:1066852 C:AQU1 Project TRRP Results Report for Class I	2
1066852_r10_05_ProjectQC	SPL Kilgore Project P:1066852 C:AQU1 Project Quality Control Groups	1
1066852_r99_09_CoC__1_of_1	SPL Kilgore CoC AQU1 1066852_1_of_1	3
Total Pages:		9

Email: Kilgore.projectmanager@spl-inc.com





SAMPLE CROSS REFERENCE

Project
1066852

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Printed 7/25/2023 Page 1 of 1

Sample	Sample ID	Taken	Time	Received
2216111	G024740-01	07/18/2023	13:00:00	07/21/2023

Bottle 01 Client supplied plastic

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 300.0 2.1	01	1073388	07/21/2023	1073388	07/21/2023

Email: Kilgore.projectmanager@spl-inc.com



Report Page 2 of 10

AQU1-G

Aqua-Tech Laboratories
 John Brien
 635 Phil Gramm Blvd.
 Bryan, TX 77807-9104

Page 1 of 2

Project
1066852

Printed: 07/25/2023

RESULTS

Sample Results

2216111 **G024740-01**

Received: 07/21/2023

Drinking Water

Collected by: Client
 Taken: 07/18/2023

Aqua-Tech Laboratori
 13:00:00

PO:

EPA 300.0 2.1

Prepared: 1073388 07/21/2023 19:53:00 Analyzed 1073388 07/21/2023 19:53:00 KAP

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Chloride	13.3	mg/L	3.00			01
NELAC	Sulfate	26.8	mg/L	3.00			01

Sample Preparation

2216111 **G024740-01**

Received: 07/21/2023

07/18/2023

Prepared: 07/24/2023 17:02:31 Calculated 07/24/2023 17:02:31 CAL

z **Environmental Fee (per Project)** **Verified**

Cooler Return Prepared: 07/24/2023 16:30:00 Analyzed 07/24/2023 16:30:00 DRS

z **Return Cooler/No bottles Require** **returned**



Report Page 3 of 10

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914



Page 2 of 2

Project
1066852

AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Printed: 07/25/2023

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of Ana-Lab Corp. Unless otherwise specified, these test results meet the requirements of NELAP.

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.

Bill Peery, MS, VP Technical Services



Report Page 4 of 10



RESULTS

Project

1066852

Printed 07/25/2023

DW

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

AQU1

CAS	Parameter	Results	MDL	SDL	MQL	MQLAdj	Flag	Units	Target	Bottle	Dilute	
Drinking Water		Ion Chromatography							EPA 300.0 2.1			
2216111	G024740-01											
			Collection:	07/18/2023	13:00:00	Client			Received:	07/21/2023		
Prepared:		1073388										
					Analyzed:	1073388		7/21/23	19:53:00			
Chloride		13.3	0.0593	0.593	0.300	3.00	mg/L	250	01	10.00		
										Secondary Standard		
Sulfate		26.8	0.0605	0.605	0.300	3.00	mg/L	250	01	10.00		
										Secondary Standard		

MDL is Method Detection Limit (40 CFR 136 Appendix B)

MQL is the Method Quantitation Limit and corresponds to a low standard

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of Ana-Lab Corp. Unless otherwise specified, these test results meet the requirements of NELAC.

SDL is Sample Detection Limit and is the adjusted MDL (sample specific dilutions, dry weight)

MQLADJ is the Adjusted Method Quantitation Limit (dilutions, dry weight)

Project

1066852

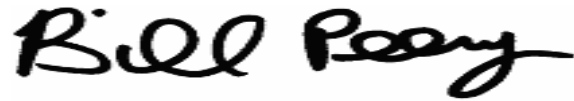
Printed 07/25/2023

DW

RESULTS

AQU1

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104



Bill Peery, MS, VP Technical Services



Email: Kilgore.projectmanager@spl-inc.com

QUALITY CONTROL



AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Page 1 of 1

Project
1066852

Printed 07/25/2023

Analytical Set **1073388**

EPA 300.0 2.1

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Chloride	1073388	ND	0.0593	0.300	mg/L	125236548
Sulfate	1073388	ND	0.0605	0.300	mg/L	125236548

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Chloride	10.3	10.0	mg/L	103	90.0 - 110	125236544
Chloride	10.3	10.0	mg/L	103	90.0 - 110	125236560
Chloride	10.4	10.0	mg/L	104	90.0 - 110	125236576
Sulfate	10.1	10.0	mg/L	101	90.0 - 110	125236544
Sulfate	10.1	10.0	mg/L	101	90.0 - 110	125236560
Sulfate	10.2	10.0	mg/L	102	90.0 - 110	125236576

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Chloride	1073388	5.30	5.25	5.00	85.0 - 115	106	105	mg/L	0.948	20.0
Sulfate	1073388	5.59	5.60	5.00	88.0 - 115	112	112	mg/L	0.179	20.0

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Chloride	2214384	1260	1270	1030	200	80.0 - 120	115	120	mg/L	4.26	20.0
Sulfate	2214384	1810	1830	1640	200	80.0 - 120	85.0	95.0	mg/L	11.1	20.0
Chloride	2215082	1140	1130	901	200	80.0 - 120	120	114	mg/L	4.27	20.0
Sulfate	2215082	1780	1790	1580	200	80.0 - 120	100	105	mg/L	4.88	20.0

* Out RPD is Relative Percent Difference: $\text{abs}(r1-r2) / \text{mean}(r1,r2) * 100\%$

Recover% is Recovery Percent: $\text{result} / \text{known} * 100\%$

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); AWRL/MRL C - Ambient Water Reporting Limit/Minimum Reporting Limit Check Std



Report Page 7 of 10



Chain-of-Custody & Analysis Request

ATL - Bryan Facility
635 Pm Graham Blvd
Bryan, TX 77807
(979) 778-5707
Fax (979) 778-3193

ATL - Austin Facility
3512 Mockingbird Drive
Austin, TX 78744
(512) 301-8558
Fax (512) 301-8552

SHIPPED TO:
Ana-Lab Corp. (NELAP Cert. T104704201)
2600 Dudley Road
Kilgore, TX 75662
Phone: (903) 964-0551
Fax: (903) 964-5914

C-O-C #

448 - G024740

T104704371

All analyses must be performed by a TMI approved method certified by the TCEQ. Contact ATL's sample custodian via voice and email if your methods do not meet this criteria.

Analysis Request for: Sample ID: G024740-01 Sampled: 07/18/23 13:00 Matrix: Drinking Water Laboratory ID: 2216111
Chloride - EPA 300.0 S04 DW - EPA 300.0

CONTAINERS SUPPLIED:

() G024740-01 [D] - [SUB] ANA CL S04 Q 025LP (ATL indicates cooler number in parentheses for each container - only required if more than one cooler listed below.)

See next page(s) for list of analytes requested.

Retransmitted by (print & sign) ☒ ATL-Austin ☐ ATL-Bryan ☐ Sample	Date	Time	Received	Abbreviations:
Kaitlyn Johnson	7/20/23	12:48	☒ Laboratory Sealed ☐ Not Sealed	DW - Drinking Water NP - Non-Potable Water S - Solid CTU - Custody Transfer Unit/Tracker SGP - Sterile Plastic LP - Litter Plastic LG - Litter Glass
Carrier & Tracking Number	Cooler 1: AQU1-901 FedEx 7727 4866 4948			
Fed Ex	Aqua-Tech Comments and Special Instructions			
Received by (print & sign)	5 DAY TAT			
Jennifer Garrett SLP, Inc.				
Line below documents condition as present in lab & shipped to listed above				
Cooler Temperature (°C)	Temp. Read (°C)	Corrected Temp (°C)	Thermometer ID	Please email reports to: reporting@aquatechlabs.com
Cooler 1				
N/A	N/A	N/A		Please return cooler(s) to: Austin Facility



ATL - Bryan Facility
635 Phil Gramm Blvd.
Bryan, TX 77807
(979) 778-3707
Fax (979) 778-3183

ATL - Austin Facility
3512 Montopolis Drive
Austin, TX 78744
(512) 301-9559
Fax (512) 301-9552

C:\ELMNT\Printscg_ATL 120322.rpt

Chain-of-Custody & Analysis Request

C-O-C #

448 - G024740

Page 2 of 2

All analyses must be performed by a TNI approved method certified by the TCEQ. Contact ATL's sample custodian via voice and email if your methods do not meet this criteria.

Analytes Requested for Multiple Component Tests

G024740-01

Chloride EPA 300.0
Chloride

SO4 DW EPA 300.0
Sulfate as SO4

T104704371



Report Page 9 of 10

1066852 CoC Print Group 001 of 001

ORIGIN ID: AUSA (512) 301-9559 KATLYN JOHNSON AQUA-TECH LAB 3512 MONTROVILLIS DR. SUITE A AUSTIN, TX 78735 UNITED STATES US		SHIP DATE: 17 JUL 23 ACT WTG: 30.00 LB CMO: 5812804MET4640 DIMS: 25x14x14 IN BILL SENDER
TO LOGIN - SAMPLES ANA-LAB - SPL CORP 2600 DUDLEY RD KILGORE TX 75662 (903) 984-0551 REF: MEMO PO. DEPT.		
		
533J46AE40AE3		

TRK# 7727 4866 4948 0207	TUE - 18 JUL 4:30P STANDARD OVERNIGHT	AH G G G A TXUS SHV 75662
-----------------------------	--	---------------------------------

Date: 12/14/23 Time: 12:14 Temp: 12/14 Tech: 12/14 Therm#: 0443 Corr Fact: 0.0 C	
--	--

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Water Quality

Well No. 7

Email information for report date:
8/21/23 09:16
G027072

Apex Drilling

Attn: Michael Becker
apexdrilling.becker@yahoo.com

PO Box 867
Marble Falls, TX 78654

August 2023 price increase.

Due to the increase in operational costs, Aqua-Tech Laboratories will be implementing a slight price increase. The new price list will be effective August 1, 2023.

Aqua-Tech values you as a customer and encourages you to reach out to our accounting staff at accounting@aquatechlabs.com if you have questions.

Thank you for your business,
June M. Brien
Executive Technical Director

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193



AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

The following abbreviations indicate certification status:

NEL	TNI accredited parameter.
ANR	Accreditation not offered by the State of Texas.
DWP	Approval through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF	Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

Certificate: T104704371-22-26



TCEQ Lab ID T104704371

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

General Definitions:

NR	Not Reported.
RPD	Relative Percent Difference.
% R	Percent Recovery.
dry	Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL	The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL	The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations.
MDL	The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - *Required containers, preservation techniques, and holding times*, unless otherwise noted in this report.

Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

June M. Brien, Technical Director

The results in this report apply only to the samples analyzed. This analytical report must be reproduced in its entirety unless written permission is granted by Aqua-Tech Laboratories, Inc.

corp@aquatechlabs.com

www.aqua-techlabs.com

BRYAN FACILITY
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Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

8/21/23 9:16

G027072

Apex Drilling Clinard #7

Collected: 08/07/23 15:00 by CLIENT
Received: 08/08/23 11:30 by Kaitlyn Johnson

Type
Grab

Matrix
Drinking Water

C-O-C #
G027072

Lab ID#	G027072-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry												
Total Dissolved Solids	468	mg/L			25.0	50.0	50.0	Austin	08/09/23 14:23 MAM	SM2540 C 2015	M164985	NEL
Nitrate as N (NO3N)	0.090	mg/L				0.020	0.020	Calc	08/16/23 10:50 SR	SM4500-NO3-F 2011	[CALC]	NEL
Nitrite as N	<0.01	mg/L		J (0.005)	0.002	0.002	0.01	Austin	08/09/23 07:09 SR	SM4500 NO2- B 2011	M164926	NEL
Nitrate/Nitrite as N	0.10	mg/L		A-01	0.02	0.02	0.02	Bryan	08/16/23 10:50 KMA	SM4500-NO3-F 2011	M165276	ANR
Total Hardness (EDTA) as CaCO3	427	mg/L			1.00	2.00	2.00	Bryan	08/14/23 09:59 ATG	SM2340 C 2011	M165146	NEL
Fluoride	0.51	mg/L			0.04	0.04	0.10	Bryan	08/09/23 12:02 ATG	SM4500-F C 2011	M164977	NEL
pH, Lab	7.1	S.U.		Hold-03	0.1	0.1	4.0	Austin	08/14/23 07:43 MSA	SM4500-H+ B 2011	M165124	DWP
Temperature @ pH Analysis	21.3	Deg. C				N/A	N/A	Austin	08/14/23 07:43 MSA	SM4500-H+ B 2011	M165124	DWP
Specific Conductance (adjusted to 25.0°C)	788	uS/cm			2.00	2.00	2.00	Austin	08/14/23 08:15 MSA	SM2510 B 2011	M165126	DWP,NEL
Microbiological Analyses												
Total Coliforms	Absent	N/A			N/A	N/A	N/A	Austin	08/08/23 18:35 AOG	SM9223 B 2004	M164921	NEL
Escherichia coli (E.coli)	Absent	N/A			N/A	N/A	N/A	Austin	08/08/23 18:35 AOG	SM9223 B 2004	M164921	NEL
Metals (Total)												
Iron	0.262	mg/L			0.002	0.002	0.010	Bryan	08/09/23 15:16 ABM	EPA 200.7 R4.4	M164960	NEL
Manganese	21.3	ug/L			0.108	0.110	0.408	Bryan	08/10/23 20:10 ABM	EPA 200.8 R5.4	M164999	NEL

Split taken from bottle G027072-01 A for bottle G027072-01 F for Fluoride analysis.

Please see the attached subcontract report for subcontracted data.

Explanation of Notes

A-01	Container G027072-01 C used for NO2+NO3 analysis was partially frozen due to an equipment malfunction. The sample was immediately thawed upon discovery. Sample response and history were reviewed, and management concluded there is no impact to data.
A-01a	Optional LCSD was outside expected range. Results accepted on one required passing LCS.
Hold-03	This parameter was outside of EPA holding at the time the sample was received in the laboratory.
J	Analyte detected below the SQL but above the MDL.

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Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

8/21/23 9:16

G027072

General Chemistry - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Fluoride - SM4500-F C 2011												Bryan
Initial Cal Check	0.35	mg/L			08/09/23 12:02 ATG	0.390		90.0	90 - 110			2308118
Blank	<0.10	mg/L	0.04	0.10	08/09/23 12:02 ATG							M164977
LCS	0.81	mg/L	0.04	0.10	08/09/23 12:02 ATG	0.798		102	90 - 110			M164977
LCS Dup	0.83	mg/L	0.04	0.10	08/09/23 12:02 ATG	0.798		104	90 - 110	2.07	10	M164977
Matrix Spike	0.99	mg/L	0.04	0.10	08/09/23 12:02 ATG	0.798	0.13	108	78.6 - 129			M164977
Matrix Spike Dup	0.98	mg/L	0.04	0.10	08/09/23 12:02 ATG	0.798	0.13	108	78.6 - 129	0.465	10	M164977
MRL Check	0.11	mg/L	0.04	0.10	08/09/23 12:02 ATG	0.0997		106	75 - 125			M164977
Nitrate/Nitrite as N - SM4500-NO3-F 2011												Bryan
Initial Cal Check	1.2	mg/L			08/16/23 10:50 KMA	1.18		99.2	90 - 110			2308200
Low Cal Check	0.02	mg/L			08/16/23 10:50 KMA	0.0200		105	70 - 130			2308200
Blank	<0.02	mg/L	0.02	0.02	08/16/23 10:50 KMA							M165276
LCS	0.52	mg/L	0.02	0.02	08/16/23 10:50 KMA	0.500		103	90.1 - 115			M165276
LCS Dup	0.52	mg/L	0.02	0.02	08/16/23 10:50 KMA	0.500		104	90.1 - 115	0.386	6.1	M165276
Matrix Spike	0.64	mg/L	0.02	0.02	08/16/23 10:50 KMA	0.500	0.11	106	84.8 - 120			M165276
Matrix Spike Dup	0.64	mg/L	0.02	0.02	08/16/23 10:50 KMA	0.500	0.11	106	84.8 - 120	0.377	8.35	M165276
Nitrite as N - SM4500 NO2- B 2011												Austin
Initial Cal Check	0.09	mg/L			08/09/23 07:09 SR	0.0800		109	90 - 110			2308096
Blank	<0.01	mg/L	0.002	0.01	08/09/23 07:09 SR							M164926
LCS	0.09	mg/L	0.002	0.01	08/09/23 07:09 SR	0.0800		110	90 - 110			M164926
LCS Dup	0.09	mg/L	0.002	0.01	08/09/23 07:09 SR	0.0800		106	90 - 110	3.16	7.76	M164926
Matrix Spike	0.10	mg/L	0.002	0.01	08/09/23 07:09 SR	0.0800	0.02	102	63.1 - 112			M164926
Matrix Spike Dup	0.10	mg/L	0.002	0.01	08/09/23 07:09 SR	0.0800	0.02	102	63.1 - 112	0.417	6.92	M164926
MRL Check	0.01	mg/L	0.002	0.01	08/09/23 07:09 SR	0.0100		114	70 - 130			M164926
Initial Cal Check	0.11	mg/L			10/05/22 12:13 BEB	0.100		107	90 - 110			2210038
pH, Lab - SM4500-H+ B 2011												Austin
Initial Cal Check	6.9	pH Units			08/14/23 07:43 MSA	6.86		100	95 - 105			2308156
Initial Cal Check	9.1	pH Units			08/14/23 07:43 MSA	9.18		99.0	95 - 105			2308156
Duplicate	6.9	pH Units	0.1	4.0	08/14/23 07:43 MSA		6.9			0.433	1.16	M165124
Specific Conductance (adjusted to 25.0°C) - SM2510 B 2011												Austin
	520	uS/cm			08/14/23 08:15 MSA	545		95.4	90 - 110			2308157
Blank	<2.00	uS/cm	2.00	2.00	08/14/23 08:15 MSA							M165126
Duplicate	792	uS/cm	2.00	2.00	08/14/23 08:15 MSA		788			0.506	1.79	M165126
LCS	1400	uS/cm	2.00	2.00	08/14/23 08:15 MSA	1410		99.5	96.2 - 104			M165126

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635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193



AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

8/21/23 9:16

G027072

General Chemistry - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Total Dissolved Solids - SM2540 C 2015												Austin
Blank	<25.0	mg/L	25.0	25.0	08/09/23 14:23 MAM							M164985
Duplicate	364	mg/L	50.0	50.0	08/09/23 14:23 MAM		390			6.90	13.9	M164985
Reference	540	mg/L	100	100	08/09/23 14:23 MAM	500		108	66 - 140			M164985
Total Hardness (EDTA) as CaCO3 - SM2340 C 2011												Bryan
Initial Cal Check	64.4	mg/L			08/14/23 09:59 ATG	64.2		100	90 - 110			2308167
Blank	<1.00	mg/L	1.00	1.00	08/14/23 09:59 ATG							M165146
Duplicate	436	mg/L	2.00	2.00	08/14/23 09:59 ATG		427			2.06	9.52	M165146
LCS	97.8	mg/L	1.00	1.00	08/14/23 09:59 ATG	100		97.8	90 - 110			M165146
LCS Dup	97.8	mg/L	1.00	1.00	08/14/23 09:59 ATG	100		97.8	90 - 110	0.00	6.47	M165146
Matrix Spike	631	mg/L	2.00	2.00	08/14/23 09:59 ATG	200	427	102	87.6 - 111			M165146
MRL Check	4.44	mg/L	1.00	1.00	08/14/23 09:59 ATG	4.00		111	70 - 130			M165146

Metals (Total) - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Iron - EPA 200.7 R4.4												Bryan
Blank	<0.010	mg/L	0.002	0.010	08/09/23 14:21 ABM							M164960
Duplicate	<0.102	mg/L	0.020	0.102	08/09/23 14:31 ABM		<0.102				20	M164960
Matrix Spike	10.6	mg/L	0.021	0.104	08/09/23 14:34 ABM	10.0	<0.104	106	69.5 - 130.4			M164960
LCS	1.15	mg/L	0.002	0.010	08/09/23 15:22 ABM	1.00		115	84.5 - 115.4			M164960
LCS Dup	1.17	mg/L	0.002	0.010	08/09/23 15:25 ABM	1.00		117	84.5 - 115.4	1.30	20	M164960
Manganese - EPA 200.8 R5.4												Bryan
Blank	<0.408	ug/L	0.110	0.408	08/10/23 19:15 ABM							M164999
LCS	9.81	ug/L	0.111	0.412	08/10/23 19:23 ABM	10.0		98.1	84.5 - 115.4			M164999
LCS Dup	9.54	ug/L	0.111	0.412	08/10/23 19:31 ABM	10.0		95.4	84.5 - 115.4	2.81	20	M164999
Duplicate	21.9	ug/L	0.110	0.408	08/10/23 19:39 ABM		21.3			2.96	20	M164999
Matrix Spike	31.4	ug/L	0.111	0.412	08/10/23 19:46 ABM	10.0	21.3	101	69.5 - 130.4			M164999

Microbiological Analyses - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Log10 Comparison Range	Control Limit	Batch
Escherichia coli (E.coli) - SM9223 B 2004												Austin
Blank	Absent	N/A	N/A	N/A	08/08/23 18:35 AOG							M164921

BRYAN FACILITY
 635 Phil Gramm Boulevard
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AUSTIN FACILITY
 3512 Montopolis Dr. Suite A
 Austin, TX 78744
 Phone: (512) 301-9559
 Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

8/21/23 9:16

G027072

Microbiological Analyses - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Log10 Comparison Range	Control Limit	Batch
Total Coliforms - SM9223 B 2004												<i>Austin</i>
Blank	Absent	N/A	N/A	N/A	08/08/23 18:35 AOG							M164921

Preparation Procedures - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Turbidity - SM2130 B 2011												<i>Bryan</i>
Initial Cal Check	10	NTU			06/14/23 09:24 HDH	9.52		107	90 - 110			2306185
Low Cal Check	0.5	NTU			06/14/23 09:24 HDH	0.400		130	70 - 130			2306185
Low Cal Check	1.3	NTU			06/14/23 09:24 HDH	1.00		130	70 - 130			2306185

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
G027072-01										
Escherichia coli (E.coli)	SM9223 B 2004	8/8/23 18:18 AOG	Austin	F	100	mL	100	mL	1	M164921
Fluoride	SM4500-F C 2011	8/9/23 12:02 ATG	Bryan	F	25.0	mL	25.0	mL	1	M164977
Iron	EPA 200.7 R4.4	8/9/23 11:00 ABM	Bryan	B	10.0	mL	10.2	mL	1	M164960
Manganese	EPA 200.8 R5.4	8/10/23 9:40 ABM	Bryan	B	10.0	mL	10.2	mL	1	M164999
Nitrate/Nitrite as N	SM4500-NO3-F 2011	8/16/23 9:54 KMA	Bryan	C	10.0	mL	10.0	mL	1	M165276
Nitrite as N	SM4500 NO2- B 2011	8/9/23 7:09 SR	Austin	A	25.0	mL	25.0	mL	1	M164926
pH, Lab	SM4500-H+ B 2011	8/14/23 7:43 MSA	Austin	A	50.0	mL	50.0	mL	1	M165124
Specific Conductance (adjusted to 25.0°C)	SM2510 B 2011	8/14/23 8:15 MSA	Austin	A	25.0	mL	25.0	mL	1	M165126
Subcontract	Sub Contract Data Entry	8/17/23 13:23 PMY	Bryan	-	-	-	-	-	-	M165379
Temperature @ pH Analysis	SM4500-H+ B 2011	8/14/23 7:43 MSA	Austin	A	50.0	mL	50.0	mL	1	M165124
Total Coliforms	SM9223 B 2004	8/8/23 18:18 AOG	Austin	F	100	mL	100	mL	1	M164921
Total Dissolved Solids	SM2540 C 2015	8/9/23 14:23 SR	Austin	A	50.0	mL	100	mL	1	M164985
Total Hardness (EDTA) as CaCO3	SM2340 C 2011	8/14/23 9:59 ATG	Bryan	B	25.0	mL	50.0	mL	1	M165146
Turbidity	SM2130 B 2011	8/9/23 9:25 ABM	Bryan	B	10.0	mL	10.0	mL	1	M164938



Chain-of-Custody and Analysis Request



Aqua-Tech Laboratories, Inc.

Austin

Bryan

3512 Montopolis Dr. Suite A
Austin, TX 78744
512.301.9559

635 Phil Gramm Blvd.
Bryan, TX 77807
979.778.3707

Work Order / C-O-C

6027071

Page 1 of 1

V-0023 R03

Client / Project: CLINARO ROUND MOUNTAIN Apex Drilling / DW in well

Name: APEX DRILLING
Address:
City: State: ZIP:
Phone / Email:

Definitions:
DW - Drinking Water
NP - Non-Potable Water
S - Solid
CM - Custody Maintained
CTU - Custody Transfer Unbroken
CT - Corrected Temperature
SUB - Subcontracted Analysis
(*) Container Type
P - Plastic
G - Glass
T - Teflon®

TCEQ Lab ID:
T104704371

Test results meet all accreditation/certification requirements unless stated otherwise.

Sample Custody

Relinquished by (print & sign)	☒ Sampler ☐ Client ☐ ATL Field	Date 8-8-23 Time 11:30	☒ Iced / Refrig ☐ Custody Sealed
Received by (print & sign)	☐ Client ☐ ATL Field	Date Time	☐ Iced / Refrig ☐ CM / CTU
Relinquished by (print & sign)	☐ Client ☐ ATL Field	Date Time	☐ Iced / Refrig ☐ CM / CTU
Received by (print & sign)	☐ Client ☐ ATL Field	Date Time	☐ Iced / Refrig ☐ CM / CTU
Relinquished by (print & sign)	☐ Client ☐ ATL Field	Date Time	☐ Iced / Refrig ☐ CM / CTU / sealed
Received by (print & sign)	☒ Lab	Date 8/8/23 Time 1130	☒ Good ☒ Iced / Refrig ☒ CM / CTU

Client Comments:

* Preservatives

Receipt in Lab

1	< 6 °C (unfrozen)	Cooler ID:	CT
2	H2SO4 0809277	Temperature (°C):	4.2 / 4.3 CT
3	HCl	read / CT	
4	HNO3 0799021	Preservation Correct?	YES NO YES NO
5	Na2S2O3 0807841	Post Preservatives?	YES NO YES NO
6	NaOH	Thermometer ID:	0724980
7		pH Paper ID:	0802385

Lab Comments: Split taken from bottle 6027072-01A for bottle 6027072-01F for Fluoride analysis only

Field Sample ID

(record field data for each sample in space below)

Start

Date

Time

End

Date

Time

Composite Type

Sample Matrix

Bottle Count

Container(s)

Volume (Size in L)

Type (+)

Preservative(s) *

LAB USE ONLY BELOW (initials)

Cooler ID

pH Check

SUB

WORK ORDER

Sample

Apex Drilling Clinard #1	08-07-23	15:00			Ends	DW	1	2	P	1	CT						A
CLINARO #7							1	0.5	P	1,4	CT	pH2					B
							1	0.25	P	1,2	CT	pH2					C
							1	0.25	P	1	CT						D
							1	0.15	P	1,5	CT						E 15

Project
1069306

Printed 08/16/2023 13:28

AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

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1069306_r03_03_ProjectResults	SPL Kilgore Project P:1069306 C:AQU1 Project Results t:304	2
1069306_r03_06_I_ProjectTRRP	SPL Kilgore Project P:1069306 C:AQU1 Project TRRP Results Report for Class I	2
1069306_r10_05_ProjectQC	SPL Kilgore Project P:1069306 C:AQU1 Project Quality Control Groups	1
1069306_r99_09_CoC__1_of_1	SPL Kilgore CoC AQU1 1069306_1_of_1	3
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Email: Kilgore.projectmanager@spl-inc.com





SAMPLE CROSS REFERENCE

Project
1069306

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Printed 8/16/2023 Page 1 of 1

Sample	Sample ID	Taken	Time	Received
2221616	G027072-01	08/07/2023	15:00:00	08/10/2023

Bottle 01 Client supplied plastic

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 300.0 2.1	01	1077172	08/15/2023	1077172	08/15/2023

Email: Kilgore.projectmanager@spl-inc.com





AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Page 1 of 2

Project

1069306

Printed: 08/16/2023

RESULTS

Sample Results

2221616	G027072-01	Received:	08/10/2023
Drinking Water	Collected by: Client	Aqua-Tech Laboratori	PO:
	Taken: 08/07/2023	15:00:00	
EPA 300.0 2.1			
Prepared: 1077172 08/15/2023 00:23:00 Analyzed 1077172 08/15/2023 00:23:00 KAP			
Parameter	Results	Units	RL
Flags	CAS	Bottle	
NELAC Chloride	80.0	mg/L	30.0
NELAC Sulfate	148	mg/L	30.0

Sample Preparation

2221616	G027072-01	Received:	08/10/2023
08/07/2023			
Cooler Return			
Prepared: 08/11/2023 14:30:00 Analyzed 08/11/2023 14:30:00 DRS			

Return Cooler/No bottles Require returned

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc. - Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914



Project
1069306

AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Printed: 08/16/2023

Bill Peery

Bill Peery, MS, VP Technical Services





RESULTS

AQU1

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Project

1069306

Printed 08/16/2023

DW

CAS	Parameter	Results	MDL	SDL	MQL	MQLAdj	Flag	Units	Target	Bottle	Dilute
Drinking Water		Ion Chromatography								EPA 300.0 2.1	
2221616	G027072-01										
Collection:			08/07/2023	15:00:00		Client		Received:		08/10/2023	
Prepared:		1077172									
Analyzed:			1077172		8/15/23	00:23:00					
Chloride		80.0	0.0593	5.93	0.300	30.0	mg/L	250	01	100.00	
								Secondary Standard			
Sulfate		148	0.0605	6.05	0.300	30.0	mg/L	250	01	100.00	
								Secondary Standard			

MDL is Method Detection Limit (40 CFR 136 Appendix B)

MQL is the Method Quantitation Limit and corresponds to a low standard

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.

SDL is Sample Detection Limit and is the adjusted MDL (sample specific dilutions, dry weight)

MQLADJ is the Adjusted Method Quantitation Limit (dilutions, dry weight)

Email: Kilgore.projectmanager@spl-inc.com

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914



Page 2 of 2

Project

1069306

Printed 08/16/2023

DW

RESULTS

AQU1

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Bill Peery, MS, VP Technical Services



Email: Kilgore.projectmanager@spl-inc.com

QUALITY CONTROL



Page 1 of 1

AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Project
1069306

Printed 08/16/2023

Analytical Set 1077172

EPA 300.0 2.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1077172	ND	0.0593	0.300	mg/L	125333396
Sulfate	1077172	ND	0.0605	0.300	mg/L	125333396

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chloride	9.97	10.0	mg/L	99.7	90.0 - 110	125333392
Chloride	9.87	10.0	mg/L	98.7	90.0 - 110	125333408
Chloride	9.93	10.0	mg/L	99.3	90.0 - 110	125333424
Sulfate	9.68	10.0	mg/L	96.8	90.0 - 110	125333392
Sulfate	9.62	10.0	mg/L	96.2	90.0 - 110	125333408
Sulfate	9.55	10.0	mg/L	95.5	90.0 - 110	125333424

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	1077172	5.11	5.14	5.00	85.0 - 115	102	103	mg/L	0.585	20.0
Sulfate	1077172	5.14	5.08	5.00	88.0 - 115	103	102	mg/L	1.17	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	2222226	249	250	125	100	80.0 - 120	124 *	125 *	mg/L	0.803	20.0
Sulfate	2222226	1290	1280	1110	100	80.0 - 120	180 *	170 *	mg/L	5.71	20.0
Chloride	2222227	257	258	131	100	80.0 - 120	126 *	127 *	mg/L	0.791	20.0
Sulfate	2222227	2340	2360	2080	100	80.0 - 120	260 *	280 *	mg/L	7.41	20.0

* Out RPD is Relative Percent Difference: $\text{abs}(r1-r2) / \text{mean}(r1,r2) * 100\%$

Recover% is Recovery Percent: $\text{result} / \text{known} * 100\%$

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); AWRL/MRL C - Ambient Water Reporting Limit/Minimum Reporting Limit Check Std



Report Page 7 of 10



Chain-of-Custody & Analysis Request

ATL - Bryan Facility
635 Phil Gramm Blvd.
Bryan, TX 77807
(979) 778-3707
Fax (979) 778-3183

ATL - Austin Facility
3512 Montopolis Drive
Austin, TX 78744
(512) 301-9559
Fax (512) 301-9552

SHIPPED TO:
Ana-Lab Corp. (NELAP Cert. T104704201)
2600 Dudley Road
Killebrew, TX 75962

C-O-C #
840 - G027072



All analyses must be performed by a TNI approved method certified by the TCEQ. Contact ATL's sample custodian via voice and email if your methods do not meet this criteria.

Analysis Request for: **Sample ID: G027072-01** **Sampled: 08/07/23 15:00** **Matrix: Drinking Water** **Laboratory ID >> 2221616**
Chloride - EPA 300.0 S04 DVW - EPA 300.0

CONTAINERS SUPPLIED: () G027072-01 [D] - [SUB] ANA CI S04 0.25LP (ATL indicates cooler number in parentheses for each container - only required if more than one cooler listed below.)

See next page(s) for list of analytes requested.

See Attached for
Tracking # and Temp

Relinquished by: (print & sign) ☒ ATL-Austin ☐ ATL-Bryan ☐ Sample		Date	Time	Temp	Condition	Notes
Kaitlyn Johnson		8/9/23	11:00	100°F	Not Chilled	
Carrier & Tracking Number		Cooler 1: AQU1-17 FedEx 7729 7036 0492				
Fed Ex		Sample Info				
Received by: (print & sign) ☒ Received in lab		*X* all that apply				
Chrisl Parker SPL, Inc.		Condition Good				
Line below documents condition at receipt in lab (shipped to) listed above.		Condition Good				
Cooler Temperature(s)	Temp Read (T°)	Connected Temp (CT)	Thermometer ID	Please email reports to: reporting@aquatechlabs.com		
Cooler 1				Please return cooler(s) to: Austin Facility		
N/A	N/A	N/A				



ATL - Bryan Facility:
635 Phil Gramm Blvd.
Bryan, TX 77807
(979) 778-3707
Fax (979) 778-3193

ATL - Austin Facility:
3512 Montopolis Drive
Austin, TX 78744
(512) 201-9659
Fax (512) 201-9652

Chain-of-Custody & Analysis Request

C:\ELMNT\Printsco_ATL_120522.rpt

C-O-C #

840 - G027072

T104704371

Page 2 of 2

All analyses must be performed by a TNI approved method certified by the TCEQ. Contact ATL's sample custodian via voice and email if your methods do not meet this criteria.

Analytes Requested for Multiple Component Tests

G027072-01

Chloride EPA 300.0

Chloride

SO4 DW EPA 300.0

Sulfate as SO4



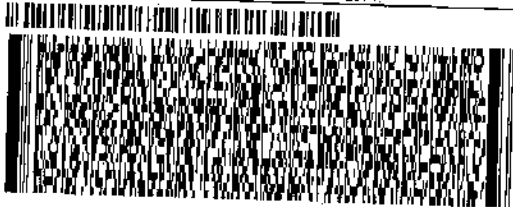
1069306 CoC Print Group 001 of 001

ORIGIN ID: AUSA KATLYN JOHNSON AQUA TECH LAB 3812 MONTOPOLIS DR. SUITE A AUSTIN, TX 78735 UNITED STATES US	(512) 301-0559	SHIP DATE: 07AUG23 ACTWGT: 30.00 LB CAD: 5812604/INET4540 DIMS: 16x18x11 IN BILL SENDER
--	----------------	---

TO LOGIN SAMPLES
SPL INC. KILGORE
2600 DUDLEY RD

KILGORE TX 75662
(903) 984-0551 RFF
INV. PO.

DEPT.

TRK# 7729 7036 0492 TUE - 08 AUG 5:00P
0201 STANDARD OVERNIGHT

AH GGGA 75662
TX-US SHV



8/10/23 1330 JL6
Date Time Tech
Temp: 0.5/0.5 C
Therm#: 6443 Corr Fact: 0.0 C

Water Quality

Well No. 8

Email information for report date:
8/16/23 17:06
G026187

Apex Drilling

Attn: Michael Becker
apexdrilling.becker@yahoo.com

PO Box 867
Marble Falls, TX 78654

August 2023 price increase.

Due to the increase in operational costs, Aqua-Tech Laboratories will be implementing a slight price increase. The new price list will be effective August 1, 2023.

Aqua-Tech values you as a customer and encourages you to reach out to our accounting staff at accounting@aquatechlabs.com if you have questions.

Thank you for your business,
June M. Brien
Executive Technical Director

BRYAN FACILITY
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Fax: (512) 301-9552

The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

The following abbreviations indicate certification status:

NEL	TNI accredited parameter.
ANR	Accreditation not offered by the State of Texas.
DWP	Approval through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF	Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

Certificate: T104704371-22-26



TCEQ Lab ID T104704371

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

General Definitions:

NR	Not Reported.
RPD	Relative Percent Difference.
% R	Percent Recovery.
dry	Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL	The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL	The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations.
MDL	The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - *Required containers, preservation techniques, and holding times*, unless otherwise noted in this report.

Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

A handwritten signature in black ink that reads 'June M. Brien'.
June M. Brien, Technical Director

The results in this report apply only to the samples analyzed. This analytical report must be reproduced in its entirety unless written permission is granted by Aqua-Tech Laboratories, Inc.

corp@aquatechlabs.com

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Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

8/16/23 17:06

G026187

Apex Drilling Clinard #8

Collected: 07/31/23 11:30 by CLIENT
Received: 08/01/23 09:24 by Kaitlyn Johnson

Type
Grab

Matrix
Drinking Water

C-O-C #
G026186

Lab ID# G026187-01

Result

Units

Notes

MDL

Adj MDL

SQL

Lab

Analyzed

Method

Batch

General Chemistry

Total Dissolved Solids	448	mg/L		25.0	50.0	50.0	Austin	08/04/23 11:49 MAM	SM2540 C 2015	M164779	NEL
Nitrate as N (NO3N)	<0.020	mg/L			0.020	0.020	Calc	08/02/23 11:14 BEB	SM4500-NO3-F 2011	[CALC]	NEL
Nitrite as N	<0.01	mg/L		0.002	0.002	0.01	Austin	08/02/23 09:58 BEB	SM4500 NO2- B 2011	M164603	NEL
Nitrate/Nitrite as N	<0.02	mg/L		0.02	0.02	0.02	Bryan	08/02/23 11:14 KMA	SM4500-NO3-F 2011	M164593	ANR
Total Hardness (EDTA) as CaCO3	431	mg/L		1.00	2.00	2.00	Bryan	08/07/23 12:24 ATG	SM2340 C 2011	M164861	NEL
Fluoride	0.52	mg/L		0.04	0.04	0.10	Bryan	08/07/23 10:04 ATG	SM4500-F C 2011	M164838	NEL
pH, Lab	7.2	S.U.	Hold-03	0.1	0.1	4.0	Austin	08/03/23 13:41 SR	SM4500-H+ B 2011	M164713	DWP
Temperature @ pH Analysis	22.1	Deg. C			N/A	N/A	Austin	08/03/23 13:41 SR	SM4500-H+ B 2011	M164713	DWP
Specific Conductance (adjusted to 25.0°C)	756	uS/cm		2.00	2.00	2.00	Austin	08/07/23 07:40 MSA	SM2510 B 2011	M164807	DWP,NEL

Metals (Total)

Iron	0.149	mg/L		0.002	0.002	0.010	Bryan	08/02/23 18:37 ABM	EPA 200.7 R4.4	M164598	NEL
Manganese	22.4	ug/L		0.108	0.110	0.408	Bryan	08/07/23 16:15 MRG	EPA 200.8 R5.4	M164868	NEL

Please see the attached subcontract report for subcontracted data.

Explanation of Notes

Hold-03 This parameter was outside of EPA holding at the time the sample was received in the laboratory.

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Analytical Report

Apex Drilling

Report Printed:

8/16/23 17:06

G026187

General Chemistry - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Fluoride - SM4500-F C 2011												<i>Bryan</i>
Initial Cal Check	0.39	mg/L			08/07/23 10:04 ATG	0.390		100	90 - 110			2308076
Blank	<0.10	mg/L	0.04	0.10	08/07/23 10:04 ATG							M164838
LCS	0.79	mg/L	0.04	0.10	08/07/23 10:04 ATG	0.798		99.0	90 - 110			M164838
LCS Dup	0.79	mg/L	0.04	0.10	08/07/23 10:04 ATG	0.798		99.4	90 - 110	0.379	10	M164838
Matrix Spike	1.36	mg/L	0.04	0.10	08/07/23 10:04 ATG	0.798	0.52	105	78.6 - 129			M164838
Matrix Spike Dup	1.34	mg/L	0.04	0.10	08/07/23 10:04 ATG	0.798	0.52	103	78.6 - 129	2.41	10	M164838
MRL Check	0.10	mg/L	0.04	0.10	08/07/23 10:04 ATG	0.0997		104	75 - 125			M164838
Nitrate/Nitrite as N - SM4500-NO3-F 2011												<i>Bryan</i>
Initial Cal Check	1.2	mg/L			08/02/23 11:14 KMA	1.18		102	90 - 110			2308014
Low Cal Check	0.02	mg/L			08/02/23 11:14 KMA	0.0200		120	70 - 130			2308014
Blank	<0.02	mg/L	0.02	0.02	08/02/23 11:14 KMA							M164593
LCS	0.51	mg/L	0.02	0.02	08/02/23 11:14 KMA	0.500		102	90.1 - 115			M164593
LCS Dup	0.51	mg/L	0.02	0.02	08/02/23 11:14 KMA	0.500		103	90.1 - 115	0.390	6.1	M164593
Matrix Spike	0.60	mg/L	0.02	0.02	08/02/23 11:14 KMA	0.500	0.09	104	84.8 - 120			M164593
Matrix Spike Dup	0.60	mg/L	0.02	0.02	08/02/23 11:14 KMA	0.500	0.09	103	84.8 - 120	0.193	8.35	M164593
Nitrite as N - SM4500 NO2- B 2011												<i>Austin</i>
Initial Cal Check	0.08	mg/L			08/02/23 09:58 BEB	0.0800		94.5	90 - 110			2308019
Blank	<0.01	mg/L	0.002	0.01	08/02/23 09:58 BEB							M164603
LCS	0.08	mg/L	0.002	0.01	08/02/23 09:58 BEB	0.0800		94.9	90 - 110			M164603
LCS Dup	0.08	mg/L	0.002	0.01	08/02/23 09:58 BEB	0.0800		97.5	90 - 110	2.66	7.76	M164603
Matrix Spike	0.07	mg/L	0.002	0.01	08/02/23 09:58 BEB	0.0800	<0.01	92.3	63.1 - 112			M164603
Matrix Spike Dup	0.07	mg/L	0.002	0.01	08/02/23 09:58 BEB	0.0800	<0.01	90.6	63.1 - 112	1.87	6.92	M164603
MRL Check	0.01	mg/L	0.002	0.01	08/02/23 09:58 BEB	0.0100		96.6	70 - 130			M164603
Initial Cal Check	0.11	mg/L			10/05/22 12:13 BEB	0.100		107	90 - 110			2210038
pH, Lab - SM4500-H+ B 2011												<i>Austin</i>
Initial Cal Check	6.9	pH Units			08/03/23 13:41 SR	6.86		100	95 - 105			2308042
Initial Cal Check	9.1	pH Units			08/03/23 13:41 SR	9.18		98.9	95 - 105			2308042
Duplicate	7.2	pH Units	0.1	4.0	08/03/23 13:41 SR		7.2			0.558	1.16	M164713
Specific Conductance (adjusted to 25.0°C) - SM2510 B 2011												<i>Austin</i>
Initial Cal Check	534	uS/cm			08/07/23 07:40 MSA	545		98.0	90 - 110			2308066
Blank	<2.00	uS/cm	2.00	2.00	08/07/23 07:40 MSA							M164807
Duplicate	762	uS/cm	2.00	2.00	08/07/23 07:40 MSA		756			0.791	1.79	M164807
LCS	1400	uS/cm	2.00	2.00	08/07/23 07:40 MSA	1410		99.5	96.2 - 104			M164807

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Analytical Report

Apex Drilling

Report Printed:

8/16/23 17:06

G026187

General Chemistry - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Total Dissolved Solids - SM2540 C 2015												<i>Austin</i>
Blank	<25.0	mg/L	25.0	25.0	08/04/23 11:49 MAM							M164779
Duplicate	280	mg/L	50.0	50.0	08/04/23 11:49 MAM		310			10.2	13.9	M164779
Reference	472	mg/L	100	100	08/04/23 11:49 MAM	500		94.4	66 - 140			M164779
Total Hardness (EDTA) as CaCO3 - SM2340 C 2011												<i>Bryan</i>
Initial Cal Check	63.7	mg/L			08/07/23 12:24 ATG	64.2		99.3	90 - 110			2308082
Blank	<1.00	mg/L	1.00	1.00	08/07/23 12:24 ATG							M164861
Duplicate	418	mg/L	2.00	2.00	08/07/23 12:24 ATG		431			3.11	9.52	M164861
LCS	96.7	mg/L	1.00	1.00	08/07/23 12:24 ATG	100		96.7	90 - 110			M164861
LCS Dup	94.5	mg/L	1.00	1.00	08/07/23 12:24 ATG	100		94.5	90 - 110	2.29	6.47	M164861
Matrix Spike	633	mg/L	2.00	2.00	08/07/23 12:24 ATG	200	431	101	87.6 - 111			M164861
MRL Check	4.40	mg/L	1.00	1.00	08/07/23 12:24 ATG	4.00		110	70 - 130			M164861

Metals (Total) - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Iron - EPA 200.7 R4.4												<i>Bryan</i>
Blank	<0.010	mg/L	0.002	0.010	08/02/23 17:52 ABM							M164598
Duplicate	<0.102	mg/L	0.020	0.102	08/02/23 18:02 ABM		<0.102				20	M164598
Matrix Spike	10.5	mg/L	0.021	0.104	08/02/23 18:06 ABM	10.0	<0.104	105	69.5 - 130.4			M164598
LCS	1.03	mg/L	0.002	0.010	08/03/23 15:14 ABM	1.00		103	84.5 - 115.4			M164598
LCS Dup	1.01	mg/L	0.002	0.010	08/03/23 15:17 ABM	1.00		101	84.5 - 115.4	1.74	20	M164598
Manganese - EPA 200.8 R5.4												<i>Bryan</i>
Blank	<0.408	ug/L	0.110	0.408	08/07/23 15:36 MRG							M164868
LCS	10.8	ug/L	0.111	0.412	08/07/23 15:43 MRG	10.0		108	84.5 - 115.4			M164868
LCS Dup	10.4	ug/L	0.111	0.412	08/07/23 15:51 MRG	10.0		104	84.5 - 115.4	3.70	20	M164868
Duplicate	8.28	ug/L	0.110	0.408	08/07/23 15:59 MRG		8.38			1.14	20	M164868
Matrix Spike	18.9	ug/L	0.111	0.412	08/07/23 16:07 MRG	10.0	8.38	105	69.5 - 130.4			M164868

Preparation Procedures - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
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Analytical Report

Apex Drilling

Report Printed:

8/16/23 17:06

G026187

Preparation Procedures - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Turbidity - SM2130 B 2011												<i>Bryan</i>
Initial Cal Check	10	NTU			06/14/23 09:24 HDH	9.52		107	90 - 110			2306185
Low Cal Check	0.5	NTU			06/14/23 09:24 HDH	0.400		130	70 - 130			2306185
Low Cal Check	1.3	NTU			06/14/23 09:24 HDH	1.00		130	70 - 130			2306185

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
G026187-01										
Fluoride	SM4500-F C 2011	8/7/23 10:04 ATG	Bryan	E	25.0	mL	25.0	mL	1	M164838
Iron	EPA 200.7 R4.4	8/2/23 14:43 ABM	Bryan	B	10.0	mL	10.2	mL	1	M164598
Manganese	EPA 200.8 R5.4	8/7/23 12:36 HDH	Bryan	B	10.0	mL	10.2	mL	1	M164868
Nitrate/Nitrite as N	SM4500-NO3-F 2011	8/2/23 9:09 KMA	Bryan	C	10.0	mL	10.0	mL	1	M164593
Nitrite as N	SM4500 NO2- B 2011	8/2/23 9:58 BEB	Austin	D	25.0	mL	25.0	mL	1	M164603
pH, Lab	SM4500-H+ B 2011	8/3/23 13:41 SR	Austin	A	50.0	mL	50.0	mL	1	M164713
Specific Conductance (adjusted to 25.0°C)	SM2510 B 2011	8/7/23 7:40 MSA	Austin	A	25.0	mL	25.0	mL	1	M164807
Subcontract	Sub Contract Data Entry	8/16/23 12:00 PMY	Bryan	-	-	-	-	-	-	M165298
Temperature @ pH Analysis	SM4500-H+ B 2011	8/3/23 13:41 SR	Austin	A	50.0	mL	50.0	mL	1	M164713
Total Dissolved Solids	SM2540 C 2015	8/4/23 11:49 MAM	Austin	A	50.0	mL	100	mL	1	M164779
Total Hardness (EDTA) as CaCO3	SM2340 C 2011	8/7/23 12:24 ATG	Bryan	B	25.0	mL	50.0	mL	1	M164861
Turbidity	SM2130 B 2011	8/2/23 10:20 HDH	Bryan	B	10.0	mL	10.0	mL	1	M164606



Chain-of-Custody and Analysis Request



Aqua-Tech Laboratories, Inc.

Austin

Bryan

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979.778.3707

Work Order # O-C

6026187
Page 1 of 1

V-0023 R03

TCEQ Lab ID:
T104704371

Test results meet all accreditation/certification requirements unless stated otherwise.

Client / Project:

Cinard

Name: Apex Drilling
Address:
City: State: ZIP:
Phone / Email:

DW - Drinking Water (+) Container Type
NP - Non-Potable Water P - Plastic
S - Solid G - Glass
T - Teflon®
CM - Custody Maintained
CTU - Custody Transfer Unbroken
CT - Corrected Temperature
SUB - Subcontracted Analysis

By relinquishing the samples listed below to Aqua-Tech, the client agrees to the following terms.

Samples will be analyzed by a method that is within Aqua-Tech Laboratories' NELAC fields of accreditation. Analytes requiring a certified method that is not within Aqua-Tech's fields of accreditation will be subcontracted to a NELAC certified lab that is certified for that method. Clients will be notified of the subcontract lab's details. Other analytes not requiring accreditation will be analyzed by a compendial method. If a specific method is required, the client will note the method in the "Analysis Requested" column. The client approves all method modifications documented by Aqua-Tech or the subcontract lab. A current list of Aqua-Tech's NELAC fields of accreditation and other methods are available on request.

Client Comments:

* Preservatives

Receipt in Lab

1	< 6 °C (unfrozen)	Cooler ID:	CA1
2	H2SO4 0790823	Temperature (°C):	10.3/10.4 CT
3	HCl	read / CT	
4	HNO3 0797021	Preservation Correct?	YES NO YES NO
5	Na2S2O3	Post Preservatives?	YES NO YES NO
6	NaOH	Thermometer ID:	07-4420
7		pH Paper ID:	0802305

Lab
Comments

Relinquished
by
(print & sign)

Edin Becker

☒ Sampler
☐ Client
☐ ATL Field

Date 8/1/23
Time 9:24

☒ Iced / Refrig
☐ Custody Sealed

Received by
(print & sign)

☐ Client
☐ ATL Field

Date
Time

☐ Iced / Refrig
☐ CM / CTU

Relinquished
by
(print & sign)

☐ Client
☐ ATL Field

Date
Time

☐ Iced / Refrig
☐ CM / CTU

Received by
(print & sign)

☐ Client
☐ ATL Field

Date
Time

☐ Iced / Refrig
☐ CM / CTU

Relinquished
by
(print & sign)

☐ Client
☐ ATL Field

Date
Time

☐ Iced / Refrig
☐ CM / CTU / sealed

Received by
(print & sign)

☒ Lab

Date 8/1/23
Time 0924

☒ Cont Good
☒ Iced / Refrig
☒ CM / CTU

Kaitlyn Johnson

Frank

Field Sample ID

(record field data for each sample in space below)

Start

Date Time
7/31/23 11:30

End

Date Time
—

Composite
Type

Sample
Matrix

Container(s)

Bottle
Count

Volume
(Size in L)

Type
(*)

Preserv-
ative(s) *

LAB USE ONLY BELOW (initials)

Cooler ID

pH Check

SUB

WORK
ORDER

Sample

Initials

Analysis
Requested &
Comments:

Cinard #8

CA, Cond, F, Fe, H03, H02, Mn, pH,
SO4, Total Hardness, TDS

Analysis
Requested &
Comments:

Analysis
Requested &
Comments:

Analysis
Requested &
Comments:

Analysis
Requested &
Comments:

① ID#
8-3-23

11/20/23

11:51 ▾

LTE  5024182Done Blasingame Creek Ranches W...

No. 5	No. 4
No. 4	No. 7
No. 7	No. 5
<u>No. 8</u>	No. 7

Well numbers correspond to Attachment 1

The water quality from each well will need to be assessed by Aquifer to provide adequate drinking water. Upon com sample will need to be collected and analyzed for the follow

- Chloride
- Conductivity
- Fluoride
- Iron
- Nitrate (as nitrogen)
- Manganese
- pH
- Sulfate
- Total hardness
- Total Dissolved Solids (TDS)
- Presence/absence of total coliform bacteria

have any questions please feel free to call me at 512-773-3

ctfully,
ock Groundwater Services, L.L.C.



Project
1068043

Printed 08/04/2023 15:04

AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

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1068043_r03_06_I_ProjectTRRP	SPL Kilgore Project P:1068043 C:AQU1 Project TRRP Results Report for Class I	2
1068043_r10_05_ProjectQC	SPL Kilgore Project P:1068043 C:AQU1 Project Quality Control Groups	1
1068043_r99_09_CoC__1_of_1	SPL Kilgore CoC AQU1 1068043_1_of_1	3
Total Pages:		8

Email: Kilgore.projectmanager@spl-inc.com



Report Page 1 of 9



SAMPLE CROSS REFERENCE

Project
1068043

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Printed 8/4/2023 Page 1 of 1

Sample	Sample ID	Taken	Time	Received
2218909	G026187-01	07/31/2023	11:30:00	08/02/2023

Bottle 01 Client supplied plastic

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 300.0 2.1	01	1075661	08/03/2023	1075661	08/03/2023

Email: Kilgore.projectmanager@spl-inc.com





AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Page 1 of 1

Project

1068043

Printed: 08/04/2023

RESULTS

Sample Results

2218909		G026187-01				Received:				08/02/2023	
Drinking Water		Collected by: Client		Aqua-Tech Laboratori				PO:			
		Taken: 07/31/2023		11:30:00							
EPA 300.0 2.1		Prepared: 1075661		08/03/2023		13:11:00		Analyzed 1075661		08/03/2023	
										13:11:00 KA	
Parameter		Results		Units		RL		Flags		CAS	
AC Chloride		7.53		mg/L		3.00				Bottle	
AC Sulfate		17.0		mg/L		3.00				01	

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc. - Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.

Bill Peery

Bill Peery, MS, VP Technical Services





RESULTS

Project

1068043

Printed 08/04/2023

DW

AQU1

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

CAS	Parameter	Results	MDL	SDL	MQL	MQLAdj	Flag	Units	Target	Bottle	Dilute
Drinking Water		Ion Chromatography								EPA 300.0 2.1	
2218909	G026187-01										
Collection:			07/31/2023	11:30:00		Client		Received:		08/02/2023	
Prepared:		1075661									
			Analyzed:		1075661		8/3/23	13:11:00			
Chloride		7.53	0.0298	0.298	0.300	3.00	mg/L	250	01	10.00	
								Secondary Standard			
Sulfate		17.0	0.160	1.60	0.300	3.00	mg/L	250	01	10.00	
								Secondary Standard			

MDL is Method Detection Limit (40 CFR 136 Appendix B)
MQL is the Method Quantitation Limit and corresponds to a low standard
Qualifiers:

SDL is Sample Detection Limit and is the adjusted MDL (sample specific dilutions, dry weight)
MQLADJ is the Adjusted Method Quantitation Limit (dilutions, dry weight)

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.

Email: Kilgore.projectmanager@spl-inc.com

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914



Page 2 of 2

Project

1068043

Printed 08/04/2023

DW

RESULTS

AQU1

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

A handwritten signature in black ink that reads 'Bill Peery'.

Bill Peery, MS, VP Technical Services



Email: Kilgore.projectmanager@spl-inc.com

QUALITY CONTROL



AQU1-G

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104

Page 1 of 1

Project
1068043

Printed 08/04/2023

Analytical Set **1075661**

EPA 300.0 2.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1075661	0.0569	0.0298	0.300	mg/L	125296582
Sulfate	1075661	ND	0.160	0.300	mg/L	125296582

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chloride	9.79	10.0	mg/L	97.9	90.0 - 110	125296577
Chloride	9.87	10.0	mg/L	98.7	90.0 - 110	125296587
Chloride	9.83	10.0	mg/L	98.3	90.0 - 110	125296603
Sulfate	9.30	10.0	mg/L	93.0	90.0 - 110	125296577
Sulfate	9.13	10.0	mg/L	91.3	90.0 - 110	125296587
Sulfate	9.34	10.0	mg/L	93.4	90.0 - 110	125296603

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	1075661	4.69	4.67	5.00	85.0 - 115	93.8	93.4	mg/L	0.427	20.0
Sulfate	1075661	4.56	4.48	5.00	88.0 - 115	91.2	89.6	mg/L	1.77	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	2218909	16.6	16.6	7.53	10.0	80.0 - 120	90.7	90.7	mg/L	0	20.0
Sulfate	2218909	25.8	25.6	17.0	10.0	80.0 - 120	88.0	86.0	mg/L	2.30	20.0
Chloride	2219250	43.9	43.9	362	10.0	80.0 - 120	-3180 *	-3180 *	mg/L	0	20.0
Sulfate	2219250	40.4	40.5	343	10.0	80.0 - 120	-3030 *	-3020 *	mg/L	0.247	20.0

* Out RPD is Relative Percent Difference: $\text{abs}(r1-r2) / \text{mean}(r1,r2) * 100\%$

Recover% is Recovery Percent: $\text{result} / \text{known} * 100\%$

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); AWRL/MRL C - Ambient Water Reporting Limit/Minimum Reporting Limit Check Std



Report Page 6 of 9



ATL - Bryan Facility:
635 Phil Gramm Blvd.
Bryan, TX 77807
(979) 778-3707
Fax (979) 778-3193

ATL - Austin Facility:
3512 Montopolis Drive
Austin, TX 78744
(512) 301-8559
Fax (512) 301-8552

Chain-of-Custody & Analysis Request

SHIPPED TO:

Ana-Lab Corp. (NELAP Cert. T104704201)

2600 Dudley Road

Kilgore, TX 75662

Phone: (903) 984-0551

Fax: (903) 984-6914

C-O-C #

88 - G026187

T104704371



All analyses must be performed by a TNI approved method certified by the TCEQ. Contact ATL's sample custodian via voice and email if your methods do not meet this criteria.

Analysis Request for: **Sample ID: G026187-01** Sampled: 07/31/23 11:30 Matrix: Drinking Water Laboratory ID >> 2018909

Chloride - EPA 300.0

SO4 DW - EPA 300.0

CONTAINERS SUPPLIED:

() G026187-01 [D] - [SUB] ANA CI SO4 0.25LP (ATL indicates cooler number in parentheses for each container - only required if more than one cooler listed below)

See next page(s) for list of analytes requested.

Requisitioned by (print & sign) ☒ ATL - Austin ☐ ATL - Bryan ☐ Sampler		Date	8/1/23	Time	15:45	☒ Cool ☐ Cool Only Sealed ☐ Not Chilled	Abbreviations: DW - Drinking Water NP - Non-Potable Water S - Solid CTU - Custody Transfer Unbroken LG - Litter Glass
Carrier & Tracking Number: Kaitlyn Johnson Fed Ex		Cooler ID: ADUS FedEx 7728 9570 8916		Date: 8/1/23 Time: 11:15		Sample Info *X* all then apply ☒ Received In Lab ☐ Condition Good ☐ Not Rec'd In Lab	
Received by (print & sign) Kaitlyn Johnson		Date: 8/1/23		Time: 11:15		Please email reports to: reporting@aquatechlabs.com	
Line below documents condition of receipt in lab (shipped to) listed above.		Please return coolers to: Austin Facility		5 DAY TAT		Aqua-Tech Comments and Special Instructions	
Cooler Temperature (°C) Cooler 1 N/A		Temp Read (°F) Corrected Temp (°C) N/A		Thermometer ID N/A		5 DAY TAT 7/30/2023 11:15 T104704371	



ATL - Bryan Facility:
635 Phil Gramm Blvd.
Bryan, TX 77807
(979) 778-3707
Fax (979) 778-3199

ATL - Austin Facility:
3512 Monopole Drive
Austin, TX 78744
(512) 301-9559
Fax (512) 301-9562

Chain-of-Custody & Analysis Request

C:\ELM\NTPrint\scq_ATL 120522.rpt

C-O-C #

88 - G026187

T104704371



Port Page 8 of 9

All analyses must be performed by a TNI approved method certified by the TCEQ. Contact ATL's sample custodian via voice and email if your methods do not meet this criteria.

Page 2 of 2

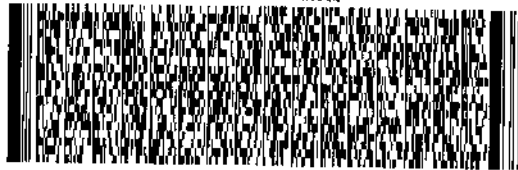
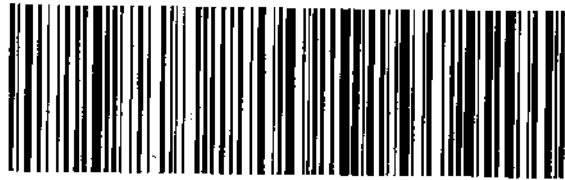
Analytes Requested for Multiple Component Tests

G026187-01

Chloride EPA 300.0
Chloride

SO4 DW EPA 300.0
Sulfate as SO4

1068043 CoC Print Group 001 of 001

ORIGIN ID: AUSA (512) 301-8559		SHIP DATE: 31 JUL 23
KAITLYN JOHNSON		ACT WGT: 30.00 LB
AQUA-TECH LAB		CAD: 5912604/NET 4640
3512 MONTPOULIS DR.		DIMS: 25x14x14 IN
SUITE A		BILL SENDER
AUSTIN, TX 78735		
UNITED STATES US		
TO LOGIN - SAMPLES		
ANA-LAB - SPL INC.		
2600 DUDLEY RD		
KILGORE TX 75662		
(903) 984-0551	REF MENO	
INV:	DEPT:	
PO:		
		
		
		
TUE - 01 AUG 5:00P		
TRKW	7728 9570 8916	STANDARD OVERNIGHT
0201		
AH GGGA		75662
		TX-US SHV
		

8/2 1140 cf
Date Time Tech
Temp: 0.7 10.7 C
Therm#: 8443 Corr Fact: 0.0 C

Email information for report date:
8/7/23 14:24
G026210

Apex Drilling

Attn: Michael Becker
apexdrilling.becker@yahoo.com

PO Box 867
Marble Falls, TX 78654

August 2023 price increase.

Due to the increase in operational costs, Aqua-Tech Laboratories will be implementing a slight price increase. The new price list will be effective August 1, 2023.

Aqua-Tech values you as a customer and encourages you to reach out to our accounting staff at accounting@aquatechlabs.com if you have questions.

Thank you for your business,
June M. Brien
Executive Technical Director

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193



AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

The following abbreviations indicate certification status:

NEL	TNI accredited parameter.
ANR	Accreditation not offered by the State of Texas.
DWP	Approval through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF	Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

Certificate: T104704371-22-26



TCEQ Lab ID T104704371

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

General Definitions:

NR	Not Reported.
RPD	Relative Percent Difference.
% R	Percent Recovery.
dry	Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL	The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL	The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations.
MDL	The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - *Required containers, preservation techniques, and holding times*, unless otherwise noted in this report.

Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

June M. Brien, Technical Director

The results in this report apply only to the samples analyzed. This analytical report must be reproduced in its entirety unless written permission is granted by Aqua-Tech Laboratories, Inc.

corp@aquatechlabs.com

www.aqua-techlabs.com

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
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Fax: (979) 778-3193



AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

8/7/23 14:24

G026210

CINARD NO 8

Collected: 07/31/23 11:30 by CLIENT
Received: 08/01/23 09:22 by Kaitlyn Johnson

Type
Grab

Matrix
Drinking Water

C-O-C #
G026210

Lab ID#	G026210-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch
Microbiological Analyses											
Total Coliforms	Absent	N/A			N/A	N/A	N/A	Austin	08/01/23 17:19 AOG	SM9223 B 2004	M164566 <i>NEL</i>
Escherichia coli (E.coli)	Absent	N/A			N/A	N/A	N/A	Austin	08/01/23 17:19 AOG	SM9223 B 2004	M164566 <i>NEL</i>

Microbiological Analyses - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Log10 Comparison Range	Control Limit	Batch
Escherichia coli (E.coli) - SM9223 B 2004												<i>Austin</i>
Blank	Absent	N/A	N/A	N/A	08/01/23 17:19 AOG							M164566
Total Coliforms - SM9223 B 2004												<i>Austin</i>
Blank	Absent	N/A	N/A	N/A	08/01/23 17:19 AOG							M164566

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
G026210-01										
Escherichia coli (E.coli)	SM9223 B 2004	8/1/23 17:02 AOG	Austin	A	100	mL	100	mL	1	M164566
Total Coliforms	SM9223 B 2004	8/1/23 17:02 AOG	Austin	A	100	mL	100	mL	1	M164566

Total Coliform & E. Coli (Presence / Absence) ATL Form V-0064 R00					Aqua-Tech Laboratories, Inc. AUSTIN 3512 Montopolis Dr. Suite A Austin, TX 78744 512.301.9559 BRYAN 635 Phil Gramm Blvd. Bryan, TX 77807 979.778.3707					AQUA-TECH LABORATORIES COC# G026210 TCEQ Lab ID: T104704371		
Client Identification & Sample Collection Information (Please type or use block print) Note that an email address is required for reporting.												
PROJECT		Cinzaed										
Report Results To:	Name (Company)	Apex Drilling Inc										
	Address	P O Box 867										
	City	Marble Falls	State	TX	Zip Code	78654						
	Phone	830-798-2739		Other Contact								
	Email	apexdrilling.becker@yaoo.com										
Circle One	Turnaround Time Requested		Sample Acceptance									
	Routine ☒ Typically 3-5 business days	Expedited ☐ Extra charges will apply	Monday - Thursday 8 am to 3 pm		Samples will not be accepted after 3 pm (Mon-Thu) or on Fridays, weekends, or holidays.							
Notes												
Sample Identification / Location		Collected			Laboratory notes or comments		Lab Results			Lab Sample ID Number Work Order		
Include any addresses, faucets, or other information you would like as part of the report. FILL CONTAINER TO BETWEEN THE 100-mL & 120-mL LINES. DO NOT RINSE OUT THE PRESERVATIVE POWDER.		Date		Time			Test Method:		SM9223 B 2004		G026210	
		Month (MM)	Day (DD)	Year (YY)			Please circle AM or PM	Chlorine		Total Coliform		
		Absent	Present	Absent	Present	Absent	Present			Sample & Container	Analysis set-up order	
Cinzaed #8 Attached		7	31	23	11:30 ^{AM} PM			✓	✓	✓	-01A 2	
					AM							
					PM							
					AM							
					PM							
					AM							
					PM							
					AM							
					PM							