Report of Findings Legacy Hills Subdivision Groundwater Availability Certification for Platting: Blanco County, Texas

For: Lone Star Land Partners, LLC. 704 Main Street Blanco, TX 78606







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<u>WRGS 21-001</u>

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January 2021

WRGS Project No. 083-003-20



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Table of Contents

Section I: Introduction	1
Section II: Projected Water Demand Estimate	3
Section III: General Groundwater Resource Information	4
III.1. Introduction	4
III.2. Stratigraphy and Geologic History	4
III.3. Hydrogeology	7
Section IV: Aquifer Testing	9
IV.1. Well Details	9
IV.2 Aquifer Testing	21
IV.2.1. Aquifer Test of Well No. 1 (December 15, 2020):	21
IV.2.2. Aquifer Test of Well No. 3 (December 17, 2020):	24
IV.2.3. Aquifer Test of Well No. 4 (December 21, 2020):	27
IV.2.4. Aquifer Test of Well No. 5 (December 23, 2020):	30
IV.2.5. Aquifer Test of Well No. 7 (January 6, 2021):	33
IV.2.6. Aquifer Test of Well No. 9 (January 4, 2021):	36
IV.2.7. Aquifer Test of Existing Well No. 1 (December 28, 2020):	39
IV.3. Water Quality	42
IV.4. Groundwater Availability	44
IV.4.1. 5 gpm Production	46
IV.4.2. 15 gpm Production	47
IV.4.3. Summary of Distance Drawdown and Well Spacing	47
Section V: Certification	62
Section VI: References	63



Figures

Figure 1: Location map	1
Figure 2: Groundwater Conservation District map	2
Figure 3: Geologic map and stratigraphic column (modified from McGeehee, 1979; Preston et. al, 1996)	6
Figure 4: Aquifer map	7
Figure 5: Well location map	9
Figure 6: Well construction profiles of Wells No. 1 and No. 2	6
Figure 7: Well construction profiles of Wells No. 3 and No. 4	7
Figure 8: Well construction profile of Wells No. 5 and No. 6	8
Figure 9: Well construction profile of Wells No. 7 and No. 8	9
Figure 10: Well construction profile of Wells No. 9 and Ex. No. 1	0
Figure 11: Aquifer test hydrograph of Well No. 1 (December 15, 2020)2	2
Figure 12: Aquifer test hydrograph of Well No. 1 and Observation Well No. 2 (December 15, 2020)2	3
Figure 13: Aquifer test hydrograph of Well No. 3 (December 17, 2020)	5
Figure 14: Aquifer test hydrograph of Well No. 3 and Observation Well No. 2 (December 17, 2020)2	6
Figure 15: Aquifer test hydrograph of Well No. 4 (December 21, 2020)	8
Figure 16: Aquifer test hydrograph of Well No. 4 and Observation Well No. 5 (December 21, 2020)2	9
Figure 17: Aquifer test hydrograph of Well No. 5 (December 23, 2020)	1
Figure 18: Aquifer test hydrograph of Well No. 5 and Observation Well No. 6 (December 23, 2020)3.	2
Figure 19: Aquifer test hydrograph of Well No. 7 (January 6, 2021)	4
Figure 20: Aquifer test hydrograph of Well No. 7 and Observation Well No. 8 (January 6, 2021)3	5
Figure 21: Aquifer test hydrograph of Well No. 9 (January 4, 2021)	7
Figure 22: Aquifer test hydrograph of Well No. 9 and Observation Well No. 4 (January 4, 2021)3	8
Figure 23: Aquifer test hydrograph of Existing Well No. 1 (December 28, 2020)4	0
Figure 24: Aquifer test hydrograph of Existing Well No. 1 and Observation Well No. 6 (December 28 2020)4	
Figure 25: Distance drawdown plot for Well No. 1 (5 gpm)	8
Figure 26: Distance drawdown plot for Well No. 1 (15 gpm)	9
Figure 27: Distance drawdown plot for Well No. 3 (5 gpm)	0
Figure 28: Distance drawdown plot for Well No. 3 (15 gpm)	1
Figure 29: Distance drawdown plot for Well No. 4 (5 gpm)	2
Figure 30: Distance drawdown plot for Well No. 4 (15 gpm)	3
Figure 31: Distance drawdown plot for Well No. 5 (5 gpm)	4
Figure 32: Distance drawdown plot for Well No. 5 (15 gpm)	
Figure 33: Distance drawdown plot for Well No. 7 (5 gpm)	6



Figure 34: Distance drawdown plot for Well No. 7 (15 gpm)	57
Figure 35: Distance drawdown plot for Well No. 9 (5 gpm)	58
Figure 36: Distance drawdown plot for Well No. 9 (15 gpm)	59
Figure 37: Distance drawdown plot for Ex. Well No. 1 (5 gpm)	60
Figure 38: Distance drawdown plot for Ex. Well No. 1 (15 gpm)	61
Tables	
Table 1: Summary of wells within 1-mile	10
Table 2: Summary of Legacy Hills well construction	14
Table 3: Summary of aquifer test results	42
Table 4: Summary of the water quality analysis results	43
Table 5: Summary of distance-drawdown calculations (5 gpm)	46
Table 6: Summary of distance-drawdown calculations (15 gpm)	47

Appendices

Appendix A: Certification of Groundwater Availability for Platting Form

Appendix B: Geophysical Logs Appendix C: State Well Reports

Appendix D: Aquifer Test Data and Analyses

Appendix E: Well Efficiency Calculations

Appendix F: Water Quality Reports



Section I: Introduction

This report details the results of a groundwater availability study for the proposed Legacy Hills Subdivision (the subdivision) 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.

The subdivision is located on Highway 290, approximately 7.2 miles west of the City of Dripping Springs in eastern Blanco County (Figure 1). The proposed subdivision is documented within the Blanco County Tax Assessor as Property IDs: 8323, 8319 and 8320. Lone Star Land Partners, LLC (704 Main Street Blanco, Tx 78606) is the plat applicant.

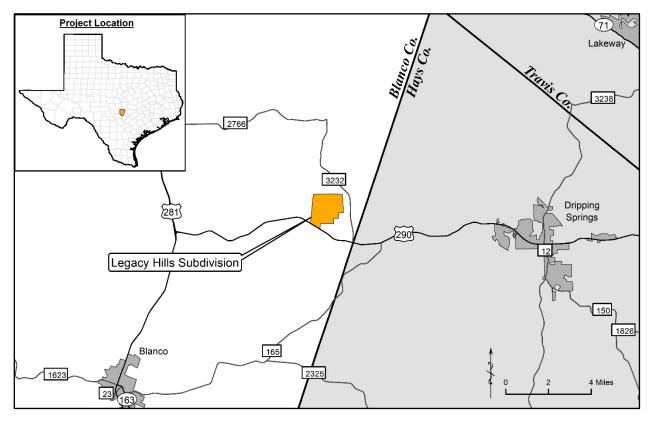


Figure 1: Location map

Lone Star Land Partners, LLC proposes to develop the first phase of the approximately 1,211.85 acre Legacy Hills Subdivision. Phase I consists of approximately 643 acres including 109 single family residential lots. The average lot size is 5.90 acres which will be served by individual water wells. 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.



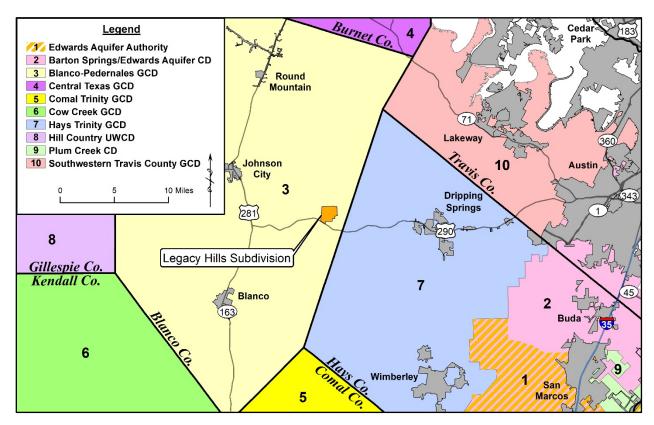


Figure 2: Groundwater Conservation District map



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

$$Q_s = n \ x \ 3.5 \ x \ 100 \ x \ 365 \ days = 13,924,750 \ gallons/year \ or \ 42.73 \ acre-feet/year$$

Where:

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

n = Number of connections (109 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 42.73 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

According to the Texas Water Development Board (TWDB), there is one (1) major aquifer (Trinity Aquifer) and two (2) minor aquifers (Hickory and Ellenburger-San Saba) that supply groundwater within the study area. The TWDB classifies major aquifers as aquifers that produce large amounts of water over large areas, and minor aquifers as aquifers that produce minor amounts of water over large areas or large amounts of water over small areas. The Trinity Aquifer is the major groundwater resource in the area and is a regionally extensive aquifer system made up of Cretaceous carbonates and Paleozoic carbonates and sandstones that were deposited throughout central Texas. The Trinity is affected by geologic structures which include the Llano Uplift, the San Marcos Arch, and the Balcones fault system (Ashworth, 1983).

III.2. Stratigraphy and Geologic History

The subdivision overlies the Cretaceous aged sedimentary rocks comprising the Trinity Aquifer. The Upper Member of the Glen Rose Formation covers the majority of the subdivision's surface, while the Lower Member of the Glen Rose Formation crops out over small areas in the north and northeastern portions of the property (Figure 3). The sediments that comprise these groups were deposited approximately 140 million years ago by a Cretaceous aged sea that once dominated the interior of North America and the Gulf Coast region. For approximately 79 million years this shallow sea deposited the sediments that now make up the property and its surrounding area. Figure 3 provides a geologic map and stratigraphic column illustrating the geology surrounding the subdivision.

The Trinity Aquifer as its name implies 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 (Figure 3). The Hosston consists of a conglomerate of gravel, sand and clay cemented by both calcite and quartz. The Hosston also contains sections of sandstone, siltstone, claystone, dolomite, limestone and shale. The Sligo Limestone consists of clastic sediment near the property, and becomes dominantly limestone and dolomite to the east. Surface outcrops are referred to in the literature as Sycamore; Hosston and Sligo are the subsurface equivalents.

Located stratigraphically above the Hosston Sand is the Hammett Shale Member also known as the Pine Island Shale. The Hammett is a transgressive "shale" deposit that onlaps Lower Trinity Sligo and Hosston formations. The interval averages 40 feet in thickness in the central Texas area (Wierman et al., 2010). The unit is primarily a clay rich, gray-green sticky, dolomitic shale/claystone with siltstone and dolomite lenses. Color can be dark gray to black, blue, greenish gray and gray. The Hammett is a confining bed separating the Lower Trinity Aquifer from the Middle Trinity Aquifer (Figure 3).

Above the Hammett Clay lies the Middle Trinity Aquifer composed of the Cow Creek Limestone and the Bexar Shale members of the Travis Peak Formation and the Lower Glen Rose Limestone member of the Glen Rose Formation (Figure 3). The Cow Creek Limestone is a massive, fossiliferous limestone and dolomite ranging up to 100 feet in thickness and may contain some interbedded sand, clay, and evaporite minerals such as gypsum and anhydrite (Ashworth, 1983; Preston et. al, 1996; Wierman et al., 2010). The formation was subaerially exposed and subjected to meteoric water infiltration during early Hensell time, which resulted in widespread vuggy porosity (Loucks, 1977). In some areas, the Cow Creek is heavily fractured and capable of producing large well yields.



Overlying the Cow Creek is the Hensell Sand Member (Figure 3), which in the outcrop, is composed of loose sand and grades into thick continental deposits of red clay, silt, sand, and conglomerate with limestone beds in the subsurface. The Hensell is sand rich in the northern portions of the aquifer. Downdip, the Hensell grades into marine deposits of silty dolomite, marl, calcareous shale, and shaley limestone known as the Bexar Shale Member (Ashworth, 1983). Downdip, the Bexar Shale acts as a confining unit for the Cow Creek (Wierman et al., 2010).

Stratigraphically above the Hensell Sand/Bexar Shale, the Glen Rose Limestone Formation is divided into a Lower and Upper Member (Figure 3). The Glen Rose along with the Hensell Sand represents a wedge of sediments deposited in a transgressing sea. George (1952) separated the Glen Rose into upper and lower members. The boundary between the two members is identified by a thin, heavily fossfiliferous limestone bed containing *Corbula martinae* that persists throughout the study area except where erosion has lowered the land surface below the bed (Whitney, 1952; Ashworth, 1983). The separation between the two units is also distinguishable on geophysical logs where two distinct evaporite zones are found within the Upper Glen Rose; one midway through the Upper Glen Rose and another near the base shown by resistivity spikes on a geophysical log. The lower member of the Glen Rose Limestone consists of a massive, fossiliferous limestone at the base grading upward into thin beds of limestone, dolomite, marl, and shale. The top 15 to 20 feet of the lower member, designated the *Salenia texana* zone, is a highly fossiliferous, nodular marl and limestone which is capped by the Corbula bed (Ashworth, 1983). Near the top of the Lower Glen Rose, in some locations, is a reef deposit that is cavernous, heavily fractured, and can range in thickness. Where the reef deposit is encountered, the Lower Glen Rose can provide high yielding wells.

The Upper Member of the Glen Rose Formation, comprising the Upper Trinity Aquifer, consists of alternating beds of limestone and dolomite with marly sections that act as aquitards and restrict downward migration of groundwater to the Middle and Lower Trinity Aquifers (Wierman et al., 2010). The Upper Glen Rose also contains two distinct evaporite beds of gypsum or anhydrite that are easily distinguishable on geophysical logs due to high resistivity values. The lower evaporite zone occurs at the base of the Upper Glen Rose, which Ashworth (1983) describes as a "convenient correlation marker" between the Upper and Lower Glen Rose. The evaporite beds in some cases are the source of elevated sulfate concentrations in groundwater. Where present, the Upper Trinity Aquifer can yield small amounts of water to shallow wells which are often utilized for livestock and domestic use.



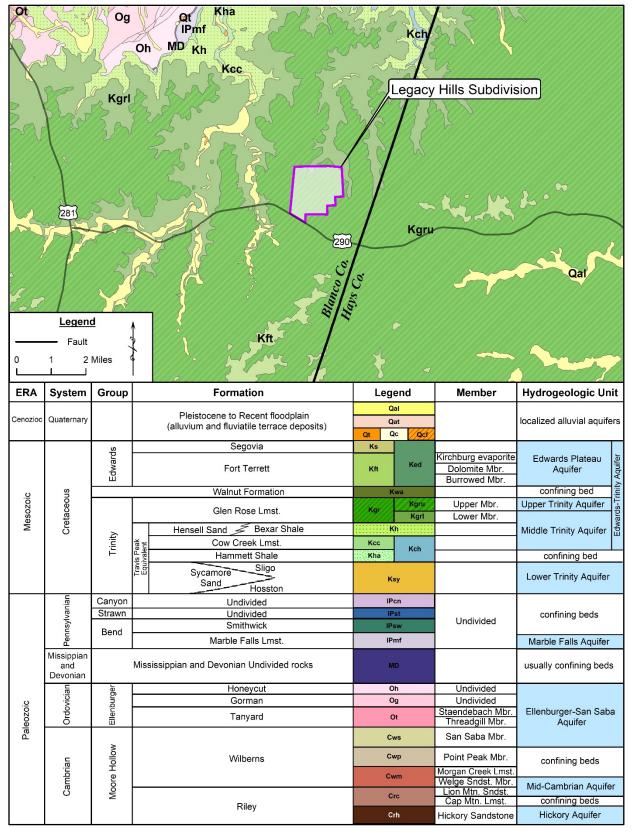


Figure 3: Geologic map and stratigraphic column (modified from McGeehee, 1979; Preston et. al, 1996)



III.3. Hydrogeology

The major aquifer located within the subdivision is the Trinity Aquifer which encompasses the majority of Blanco County. The Trinity Aquifer spans as far north as Montague County and as far south as Uvalde County where fresh water can be produced. Figure 4 provides a map of the major aquifers within the area surrounding the subdivision. The solid dark blue portion reflects the unconfined zone of the Edwards Aquifer where recharge occurs; the hatched dark blue portion reflects the confined zone of the Edwards Aquifer. The solid green portion reflects the unconfined zone of the Trinity Aquifer where recharge occurs; the hatched green portion reflects the confined zone of the Ellenburger-San Saba Aquifer where recharge occurs; the hatched yellow portion reflects the confined zone of the Ellenburger-San Saba Aquifer. The solid light green portion reflects the unconfined zone of the Edwards-Trinity (Plateau) Aquifer where recharge occurs. The solid light blue portion reflects the unconfined zone of the Marble Falls Aquifer where recharge occurs. The solid brown portion reflects the unconfined zone of the Hickory Aquifer where recharge occurs; the hatched brown portion reflects the confined zone of the Hickory Aquifer where recharge occurs; the hatched brown portion reflects the confined zone of the Hickory Aquifer where recharge occurs; the hatched brown portion reflects the confined zone of the Hickory Aquifer where recharge occurs; the hatched brown portion reflects

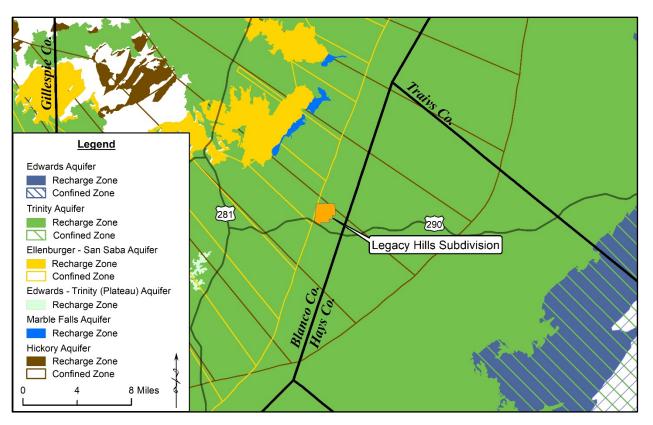


Figure 4: Aquifer map

The Upper Trinity Aquifer typically produces poor quality water due to the presence of gypsum and anhydrite layers within the Upper Glen Rose Formation and typically produces lower quantities of water. The Middle Trinity Aquifer contains the Lower Glen Rose Limestone, Hensall Sand, and Cow Creek Limestone and is separated from the Upper Trinity Aquifer by the presence of a fossil marker bed called the Corbula Bed.



The Corbula bed is a heavily fossiliferous layer that contains the small fossil clam called *Corbula martinae*. Typically, the highest yielding portion of the Trinity Aquifer is the Middle Trinity Aquifer, specifically the Lower Glen Rose Formation and the Cow Creek Limestone Member of the Travis Peak Formation. These formations are, in some localities, heavily fractured limestone, making them more productive because of their enhanced ability to transmit groundwater. In some areas, the Lower Glen Rose Formation contains the presence of a reef deposit which greatly increases the yield of a well due to its high permeability. Well yield may be increased through acidization, with increases of two or three fold obtained in some instances. The Lower Trinity Aquifer is composed of conglomerates and sandstones that are, in some instances, heavily cemented. The degree of cementing of these sediments controls the ability of water to move through the aquifer, thereby limiting the ability to produce large yielding wells. In localized areas, wells in the Lower Trinity Aquifer may produce moderate yields, although regionally the Middle Trinity Aquifer produces higher yielding wells with better quality water as compared to the Lower Trinity Aquifer.

The water quality of a well completed within the Middle Trinity Aquifer depends upon several factors, including the degree of fracturing, the amount of time the groundwater is in contact with the rock it is flowing through, and the minerals that compose the rock. For example, groundwater that flows through gypsum and anhydrite beds, which are composed of calcium sulfate (CaSO₄), will typically contain elevated levels of sulfate. Additionally, groundwater that has traveled a longer distance and has had longer contact time with aquifer sediments will also typically contain higher Total Dissolved Solids (TDS) than groundwater that has been in contact with the same rock for a shorter amount of time.



Section IV: Aquifer Testing

IV.1. Well Details

There are a total of ten (10) wells located within the subdivision that were used to perform aquifer tests. Wells No. 1 to No. 9 were recently constructed and completed in the Middle Trinity Aquifer. Existing (Ex) Wells No. 1 and No. 2 were constructed prior to the commencement of this study. Ex Well No. 1 is completed in the Middle Trinity Aquifer and Ex. Well No. 2 is completed shallower. Ex. Well No. 2 was not used in the aquifer testing. Figure 5 provides a map displaying the location of the wells on the property and within 1-mile of the property boundary. Figures 6 to 10 provide well profiles displaying well construction and formation depths that were determined from the geophysical logs and discussions with BPGCD staff; Appendix B provides geophysical logs performed by BPGCD on Ex. Well No. 1 and Wells No. 2, No. 5, No. 8 and No. 9; Appendix C provides available state well reports. Table 1 provides a summary of the existing wells according to state well data within 1-mile of the first phase of the subdivision not used in testing; Table 2 provides a well construction summary for wells used in the testing.

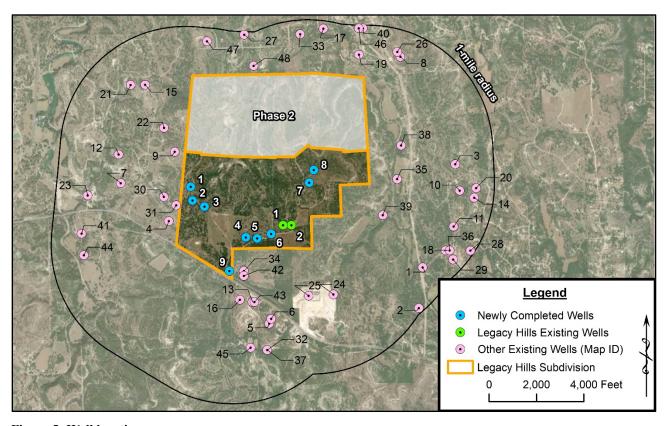


Figure 5: Well location map



Table 1: Summary of wells within 1-mile

Map ID	State Well ID	Owner	Well Depth (ft.)	Well Type		
1	34768	Doug Jernigan	480	Domestic		
2	34771	James Spencer	440	Domestic		
3	36561	Glen Portie	440	Domestic		
4	51188	Tierra Manana, LLC	370	Domestic		
5	67857	Jared Bows	424	Domestic		
6	67859	Jared Bows	444	Domestic		
7	110099	Kelly Kaatz	340	Domestic		
8	113162	Joe & Kristina Kernick	405	Domestic		
9	138484	Russell Rehmann	425	Domestic		
10	145098	Granduer Homes for Brenda Mason	400	Domestic		
11	146485	Roger Estes	420	Domestic		
12	170803	Ryan, Dewey	400	Domestic		
13	222759	Friday's	490	Domestic		
14	267971	Paul Judkins	390	Domestic		
15	277289	Mike Baringer	350	Domestic		
16	282955	Mitchell White	470	Domestic		
17	316414	Randy Voorheis	205	Domestic		
18	336042	Storm Field	440	Domestic		
19	352930	Mike Yerington/Hillside Acres	265	Domestic		
20	357280	Dave Williams	370	Domestic		
21	377270	Lisa Sutphin	385	Domestic		
22	381260	Craig Van Engelen	410	Domestic		
23	387506	Sunset Canyon Pit Management	280	Domestic		
24	429392	Austin Ready Mix	450	Other		
25	429401	West Henly Materials	450	Other		
26	448730	Joell Ebbert	380	Domestic		
27	493622	James Wright/Aart's Job	350	Domestic		
28	497315	Darin Duvall	450	Domestic		
29	521917	Storm Field	465	Stock		
30	521514	Jack Corbell	410	Domestic		
31	534089	Alexander Adamovich	425	Domestic		
32	317489	Jim Stewart	510	Domestic		
33	549071	Angela Smith	258	Domestic		
34	5754602	L.W. Prochnow	130	Unused		
35	5755102	Hodges Ranch	40	Plugged or Destroyed		
36	5755404	Ty Storm Field	N/A	Domestic		



Table 1: Continued

Map ID	State Well ID	Owner	Well Depth (ft.)	Well Type
37	5754610	Jim Stewart	510	Domestic
38	5755101	K.M. Hodges	145	Unused
39	5755103	Hodges Ranch	N/A	Unused
40	5755108	Cabello Creek Ranch	N/A	Domestic
41	5754604	L.M. Murphy	169	Domestic
42	5754603	L.W. Prochnow	371	Domestic
43	5754609	Friday's General Store Vasu Neerumonda	490	Commercial
44	5754608	Mrs. Leonard Murphy Mgr. Sonny Smith	228	Domestic
45	5754606	Fred Nolan	160	Stock
46	5755106	E.E. Fine	170	Domestic
47	5754309	Ross Vincent	425	Irrigation
48	5754310	John & Amy Kachimski	N/A	Domestic

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, seven (7) aquifer tests were conducted utilizing Ex Well No. 1 and the newly completed Middle Trinity wells. 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 throughout both phases. This is in accordance with the testing procedures of the Texas Administrative Code (TAC) Title 30 Part 1 Chapter 230.8. Based on geophysical logs conducted by BPGCD on Ex. Well No. 1 and Wells No. 2, No. 5, No. 8 and No. 9 and drill cuttings collected by Apex Drilling, Inc., the wells used in the tests are completed in the Middle Trinity Aquifer. The following provides a summary of the well construction for the wells used in the tests:

Existing Well No. 1

A State Well Report could not be located for Existing (Ex) Well No. 1. A geophysical log performed by BPGCD, indicates the well is completed within the Cow Creek Limestone Member of the Middle Trinity Aquifer with 4 1/2-inch casing to a total depth of 419 ft. below ground level (bgl).

Well No. 1

According to the State Well Report (Tracking No. 561449), drilling of Well No. 1 was completed by Apex Drilling, Inc. on December 2, 2020. The well was drilled to a depth of 375 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl. and a 6 1/2-inch borehole from 50 to 425 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 315 ft. bgl and 4 1/2-inch screen from 315 to 375 ft. bgl. Drill cuttings collected by Apex indicates that the well was completed in the Cow Creek Limestone Member of the Middle Trinity Aquifer.



Well No. 2

According to the State Well Report (Tracking No. 561450), drilling of Well No. 2 was completed by Apex Drilling, Inc. on December 3, 2020. The well was drilled to a depth of 425 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl. and a 6 1/2-inch borehole from 50 to 425 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 365 ft. bgl and 4 1/2-inch screen from 365 to 425 ft. bgl. A geophysical log performed by BPGCD, indicates the well is completed within the Cow Creek Limestone Member of the Middle Trinity Aquifer.

Well No. 3

According to the State Well Report (Tracking No. 561451), drilling of Well No. 3 was completed by Apex Drilling, Inc. on December 4, 2020. The well was drilled to a depth of 420 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl. and a 6 1/2-inch borehole from 50 to 420 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 360 ft. bgl and 4 1/2-inch screen from 360 to 420 ft. bgl. Drill cuttings collected by Apex indicates that the well was completed in the Cow Creek Limestone Member of the Middle Trinity Aquifer.

Well No. 4

According to the State Well Report (Tracking No. 561452), drilling of Well No. 4 was completed by Apex Drilling, Inc. on December 7, 2020. The well was drilled to a depth of 420 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl. and a 6 1/2-inch borehole from 50 to 420 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from 0 to 360 ft. bgl and 4 1/2-inch screen from 360 to 420 ft. bgl. Drill cuttings collected by Apex indicates that the well was completed in the Cow Creek Limestone Member of the Middle Trinity Aquifer.

Well No. 5

According to the State Well Report (Tracking No. 561453), drilling of Well No. 5 was completed by Apex Drilling, Inc. on December 7, 2020. The well was drilled to a depth of 425 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl. and a 6 1/2-inch borehole from 50 to 425 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 365 ft. bgl and 4 1/2-inch screen from 365 to 425 ft. bgl. A geophysical log performed by BPGCD, indicates the well is completed within the Cow Creek Limestone Member of the Middle Trinity Aquifer.

Well No. 6

According to the State Well Report (Tracking No. 561726), drilling of Well No. 6 was completed by Apex Drilling, Inc. on December 9, 2020. The well was drilled to a depth of 425 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl. and a 6 1/2-inch borehole from 50 to 425 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 365 ft. bgl and 4 1/2-inch screen from 365 to 425 ft. bgl. Drill cuttings collected by Apex indicates that the well was completed in the Cow Creek Limestone Member of the Middle Trinity Aquifer.



Well No. 7

According to the State Well Report (Tracking No. 561735), drilling of Well No. 7 was completed by Apex Drilling, Inc. on December 10, 2020. The well was drilled to a depth of 455 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl. and a 6 1/2-inch borehole from 50 to 455 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 395 ft. bgl and 4 1/2-inch screen from 395 to 455 ft. bgl. Drill cuttings collected by Apex indicates that the well was completed in the Cow Creek Limestone Member of the Middle Trinity Aquifer.

Well No. 8

According to the State Well Report (Tracking No. 561736), drilling of Well No. 8 was completed by Apex Drilling, Inc. on December 11, 2020. The well was drilled to a depth of 460 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl. and a 6 1/2-inch borehole from 50 to 460 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 400 ft. bgl and 4 1/2-inch screen from 400 to 460 ft. bgl. A geophysical log performed by BPGCD, indicates the well is completed within the Cow Creek Limestone Member of the Middle Trinity Aquifer.

Well No. 9

According to the State Well Report (Tracking No. 561739), drilling of Well No. 9 was completed by Apex Drilling, Inc. on December 14, 2020. The well was drilled to a depth of 445 ft. bgl with a 8 1/2-inch borehole from 0 to 50 ft. bgl. and a 6 1/2-inch borehole from 50 to 445 ft. bgl. The well was completed with 4 1/2-inch PVC casing set from +2 to 385 ft. bgl and 4 1/2-inch screen from 385 to 445 ft. bgl. A geophysical log performed by BPGCD, indicates the well is completed within the Cow Creek Limestone Member of the Middle Trinity Aquifer.



Table 2: Summary of Legacy Hills well construction

Well	Tracking No.	Latitude	Longitude	Elevation (ft. MSL)	Date Completed	Aquifer	Well Depth (ft. bgs)	Static Water Level (ft. bgs; date; ft. MSL)	Borehole (diameter; ft. bgs)	Casing (diameter; material; ft. bgs)	Screen (diameter; material; ft. bgs)
Ex Well No. 1	N/A	30° 12' 13" N	98° 15' 21" W	1,317	N/A	Middle Trinity	419	329.3' (12/28/20) 987.7'	N/A	4 1/2" PVC (0-N/A)	N/A
Well No. 1	561449	30° 12' 49" N	98° 16' 05" W	1,313	12/2/2020	Middle Trinity	375	318.5' (12/15/20) 994.5'	8 1/2" (0-50) 6 1/2" (50-425)	4 1/2" PVC (+2-315)	4 1/2" PVC Screen (315-375)
Well No. 2	561450	30° 12' 44" N	98° 16' 05" W	1,320	12/3/2020	Middle Trinity	425	320.2' (12/17/20) 1,004.8'	8 1/2" (0-50) 6 1/2" (50-425)	4 1/2" PVC (+2-365)	4 1/2" PVC Screen (365-425)
Well No. 3	561451	30° 12' 41" N	98° 15' 59" W	1,317	12/4/2020	Middle Trinity	420	321.7' (12/17/20) 991.4'	8 1/2" (0-50) 6 1/2" (50-420)	4 1/2" PVC (+2-360)	4 1/2" PVC Screen (360-420)
Well No. 4	561452	30° 12' 29" N	98° 15' 39" W	1,316	12/7/2020	Middle Trinity	420	324.0' (1/4/21) 992.0'	8 1/2" (0-50) 6 1/2" (50-420)	4 1/2" PVC (0-360)	4 1/2" PVC Screen (360-420)
Well No. 5	561453	30° 12' 27" N	98° 15' 34" W	1,326	12/7/2020	Middle Trinity	425	334.4' (12/23/20) 991.6'	8 1/2" (0-50) 6 1/2" (50-425)	4 1/2" PVC (+2-365)	4 1/2" PVC Screen (365-425)
Well No. 6	561726	30° 12' 29" N	98° 15' 27" W	1,323	12/9/2020	Middle Trinity	425	333.0' (12/28/20) 990.0'	8 1/2" (0-50) 6 1/2" (50-425)	4 1/2" PVC (+2-365)	4 1/2" PVC Screen (365-425)
Well No. 7	561735	30° 12' 51" N	98° 15' 08" W	1,332	12/10/2020	Middle Trinity	455	350.5' (1/6/21) 981.5'	8 1/2" (0-50) 6 1/2" (50-455)	4 1/2" PVC (+2-395)	4 1/2" PVC Screen (395-455)
Well No. 8	561736	30° 12' 56" N	98° 15' 06" W	1,335	12/11/2020	Middle Trinity	460	351.5' (1/6/21) 983.5'	8 1/2" (0-50) 6 1/2" (50-460)	4 1/2" PVC (+2-400)	4 1/2" PVC Screen (400-460)



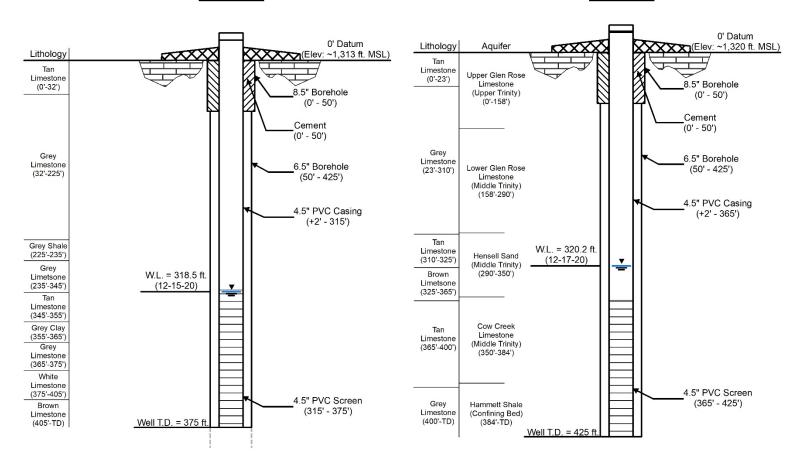
Table 2: Continued

Well	Tracking No.	Latitude	Longitude	Elevation (ft. MSL)	Date Completed	Aquifer	Well Depth (ft. bgs)	Static Water Level (ft. bgs; date; ft. MSL)	Borehole (diameter; ft. bgs)	Casing (diameter; material; ft. bgs)	Screen (diameter; material; ft. bgs)
Well No. 9	561739	30° 12' 14" N	98° 15' 47" W	1,341	12/14/2020	Middle Trinity	445	350.2' (1/4/21) 990.8'	8 1/2" (0-50) 6 1/2" (50-445)	4 1/2" PVC (+2-385)	4 1/2" PVC Screen (385-445)

Note: ft. = feet; bgl = below ground level; MSL = Mean Sea Level; N/A = not available.



Well No. 1 Well No. 2

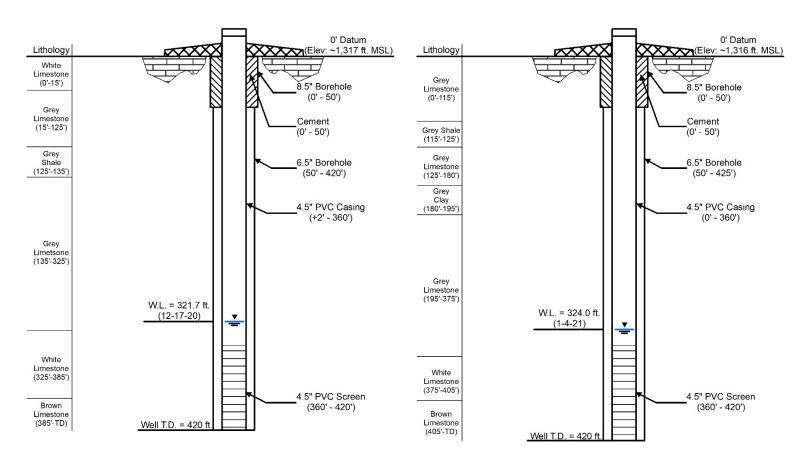


Notes

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

Well profiles created with the information from State Well Reports, drill cuttings and downhole geophysical logs.
 Figure for schematic purposes; not drawn to scale.

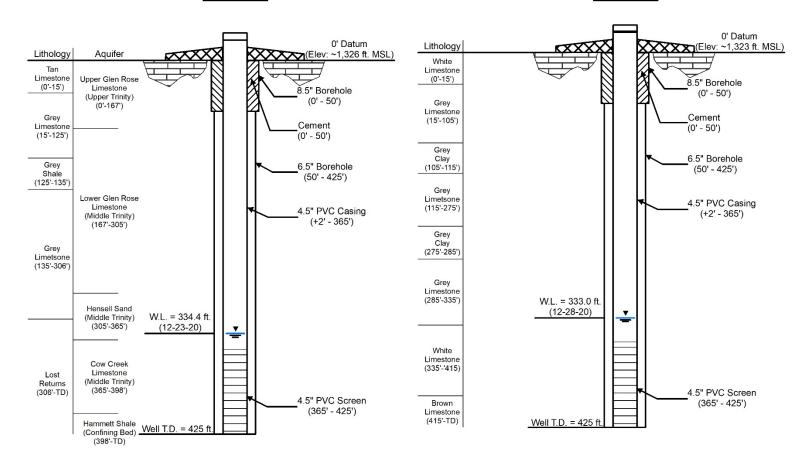
Well No. 3 Well No. 4



Well profiles created with the information from State Well Reports, drill cuttings and downhole geophysical logs.
 Figure for schematic purposes; not drawn to scale.

Figure 7: Well construction profiles of Wells No. 3 and No. 4

Well No. 5 Well No. 6

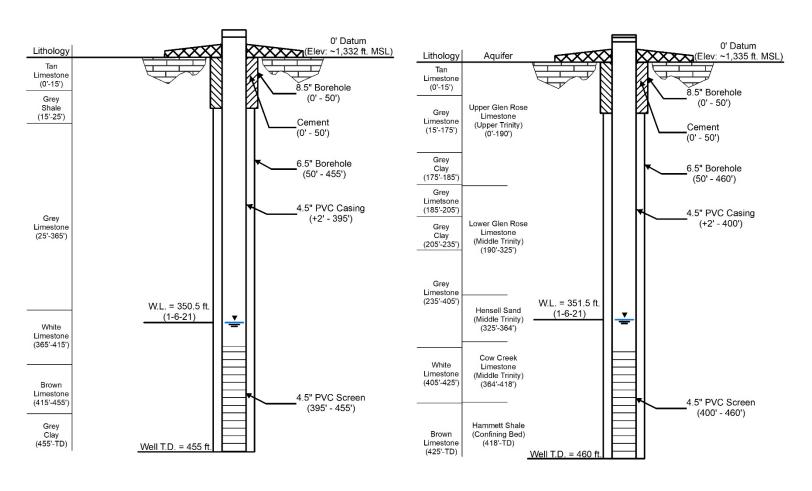


Notes

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

Well profiles created with the information from State Well Reports, drill cuttings and downhole geophysical logs.
 Figure for schematic purposes; not drawn to scale.

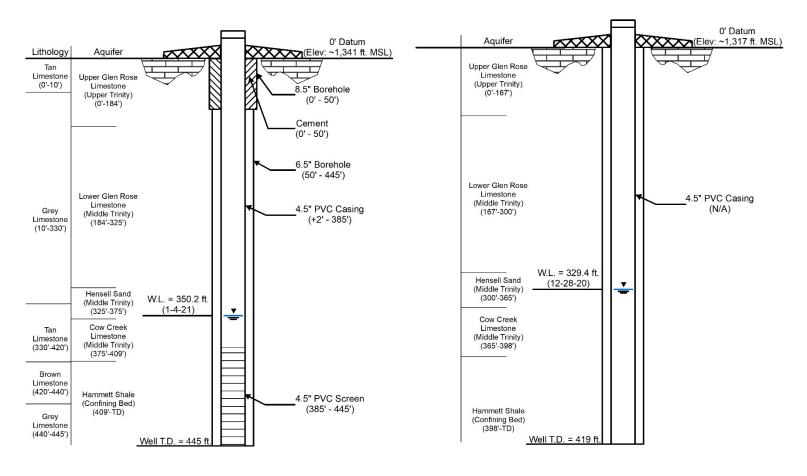
Well No. 7 Well No. 8



- Well profiles created with the information from State Well Reports, drill cuttings and downhole geophysical logs. - Figure for schematic purposes; not drawn to scale.

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

Well No. 9 Ex. Well No. 1



Notes

Figure 10: Well construction profile of Wells No. 9 and Ex. No. 1

Well profiles created with the information from State Well Reports and downhole geophysical logs.
 Figure for schematic purposes; not drawn to scale.

IV.2 Aquifer Testing

Seven (7) aquifer tests were performed to assess the hydrogeologic properties of the Middle Trinity Aquifer within the subdivision. 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, a pressure transducer capable of measuring the water level and temperature at one minute intervals was placed in the pumping well to gather data for the duration of each test. 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 3 provides a summary of the aquifer testing results; Appendix D provides the results of the aquifer analysis; and Appendix E provides well efficiency calculations for each well.

IV.2.1. Aquifer Test of Well No. 1 (December 15, 2020):

The aquifer test of Well No. 1 was conducted on December 15, 2020 with Well No. 2 as the observation well approximately 580 feet away from the pumping well. The pumping phase started at 9:58 A.M. on December 15, 2020; the water level was monitored for 24.8 hours of pumping and for 22.3 hours of recovery. Prior to the pumping phase of the aquifer test, the static water level in Well No. 1 was measured at 318.5 ft. bgl (994.5 ft. MSL) and 320.0 ft. bgl (1,000.0 ft. MSL) in Well No. 2.

Well No. 1 was pumped at an average rate of 12 gpm with a final measured pumping rate of 12 gpm with 0.85 feet of drawdown, resulting in a specific capacity of 13.93 gpm/ft. The Cooper-Jacob analysis resulted in a calculated transmissivity of 3,310.1 ft²/day, and a hydraulic conductivity of 14.6 ft./day. A maximum drawdown of 0.57 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 1.99 x 10⁻⁴. Figure 11 provides a hydrograph of the pumping well and temperature over the duration of the aquifer test; Figure 12 provides a hydrograph of both the pumping and observation well over the duration of the test.

After an initial drawdown, the water level remained stable while moderately fluctuating for the remainder 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 12). After the pump was shut off, recovery was measured in both wells; the water level in the pumping well recovered 88% in approximately 20 hours. There were no aquifer boundary conditions observed during the testing.



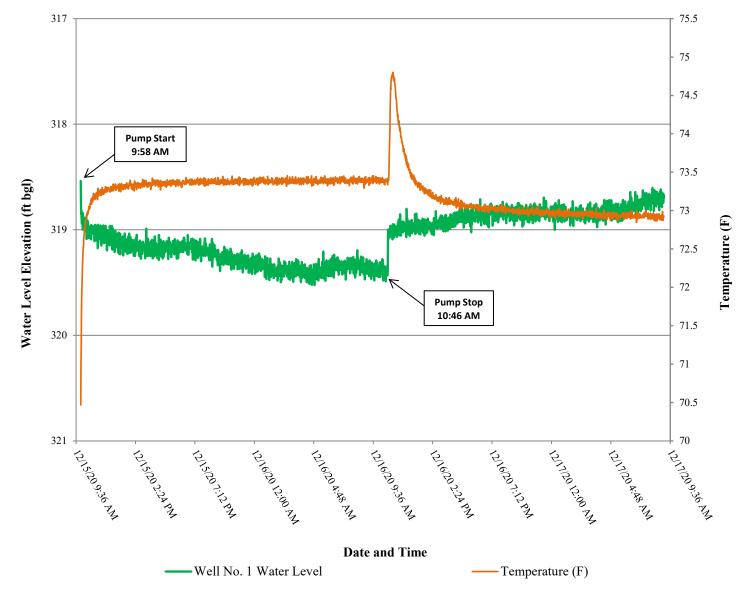


Figure 11: Aquifer test hydrograph of Well No. 1 (December 15, 2020)

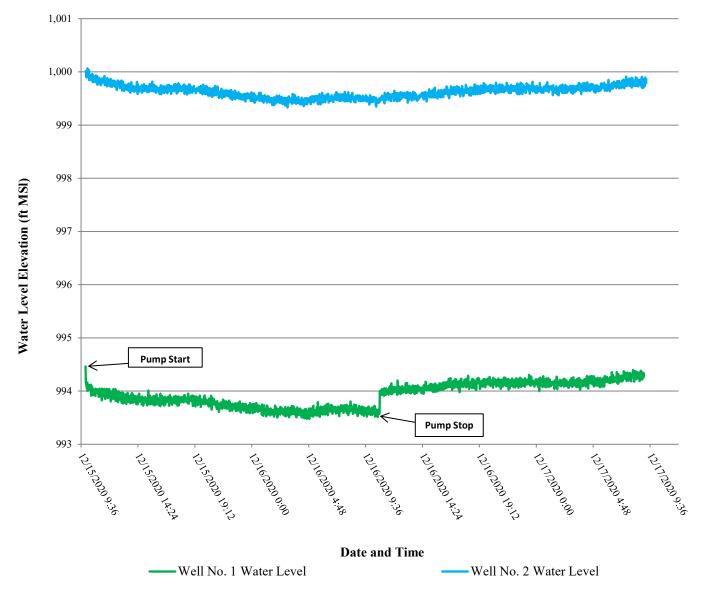


Figure 12: Aquifer test hydrograph of Well No. 1 and Observation Well No. 2 (December 15, 2020)

IV.2.2. Aquifer Test of Well No. 3 (December 17, 2020):

The aquifer test of Well No. 3 was conducted on December 17, 2020 with Well No. 2 as the observation well approximately 565 feet away from the pumping well. The pumping phase started at 9:57 A.M. on December 17, 2020; the water level was monitored for 26.1 hours of pumping and for 69.2 hours of recovery. Prior to the pumping phase of the aquifer test, the static water level in Well No. 3 was measured at 321.7 ft. bgl (991.4 ft. MSL) and 320.2 ft. bgl (1,004.8 ft. MSL) in Well No. 2.

Well No. 3 was pumped at an average rate of 14 gpm with a final measured pumping rate of 12 gpm with 1.01 feet of drawdown, resulting in a specific capacity of 11.75 gpm/ft. The Cooper-Jacob analysis resulted in a calculated transmissivity of 2,771.6 ft 2 /day, and a hydraulic conductivity of 12.3 ft./day. A maximum drawdown of 0.87 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 2.42 x 10^{-4} . Figure 13 provides a hydrograph of the pumping well and temperature over the duration of the aquifer test; Figure 14 provides a hydrograph of both the pumping and observation well over the duration of the test.

After an initial drawdown, the water level remained stable for the remainder 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. 3 (Figure 14). After the pump was shut off, recovery was measured in both wells; the water level in the pumping well recovered 95% in approximately 43 hours. There were no aquifer boundary conditions observed during the testing.



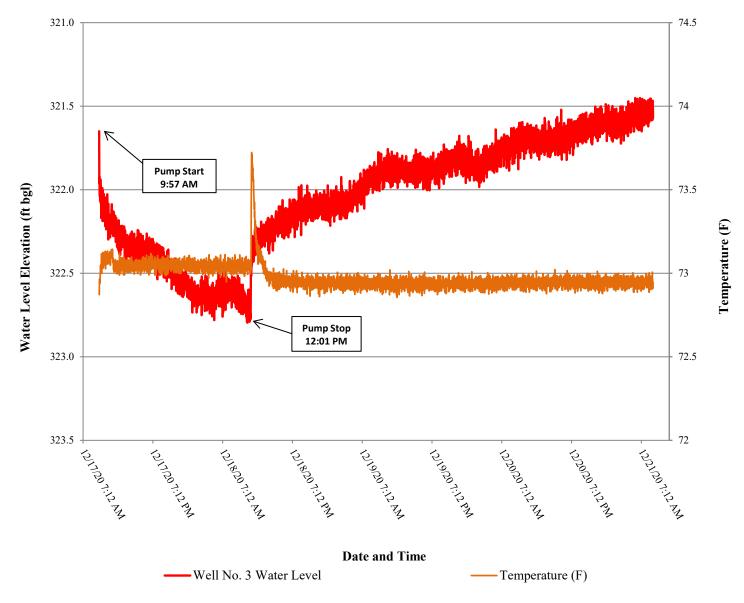


Figure 13: Aquifer test hydrograph of Well No. 3 (December 17, 2020)

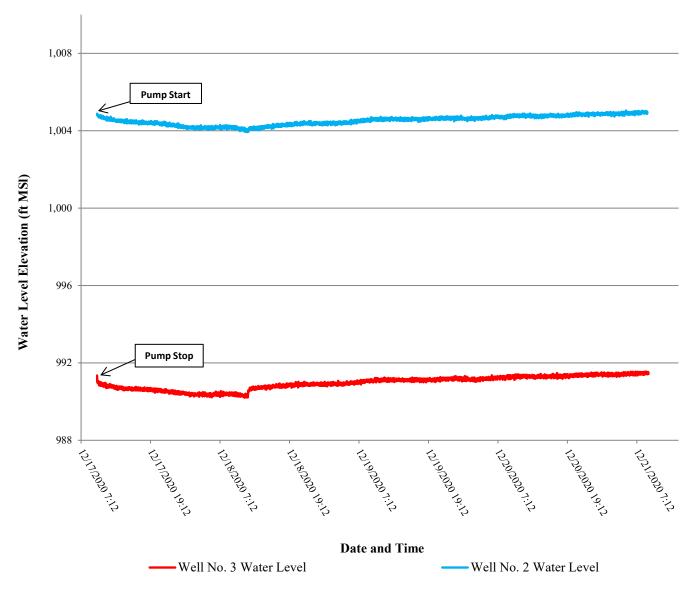


Figure 14: Aquifer test hydrograph of Well No. 3 and Observation Well No. 2 (December 17, 2020)

IV.2.3. Aquifer Test of Well No. 4 (December 21, 2020):

The aquifer test of Well No. 4 was conducted on December 21, 2020 with Well No. 4 as the observation well approximately 483 feet away from the pumping well. The pumping phase started at 10:01 A.M. on December 21, 2020; the water level was monitored for 24.1 hours of pumping and for 22.8 hours of recovery. Prior to the pumping phase of the aquifer test, the static water level in Well No. 4 was measured at 324.7 ft. bgl (991.3 ft. MSL) and 333.4 ft. bgl (992.6 ft. MSL) in Well No. 5.

Well No. 4 was pumped at an average rate of 12 gpm with a final measured pumping rate of 12 gpm with 6.12 feet of drawdown, resulting in a specific capacity of 1.94 gpm/ft. The Cooper-Jacob analysis resulted in a calculated transmissivity of 510.7 ft 2 /day, and a hydraulic conductivity of 2.2 ft./day. A maximum drawdown of 1.14 feet was observed in Well No. 5 indicating a hydraulic connection between the two wells. Due to the observed hydraulic connection, we calculated a storativity value for Well No. 5 of 4.09 x 10^{-4} . Figure 15 provides a hydrograph of the pumping well and temperature over the duration of the aquifer test; Figure 16 provides a hydrograph of both the pumping and observation well over the duration of the test.

After an initial drawdown, the water level slowly declined 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 16). After the pump was shut off, recovery was measured in both wells; the water level in the pumping well recovered 90% in approximately 17 hours. There were no aquifer boundary conditions observed during the testing.



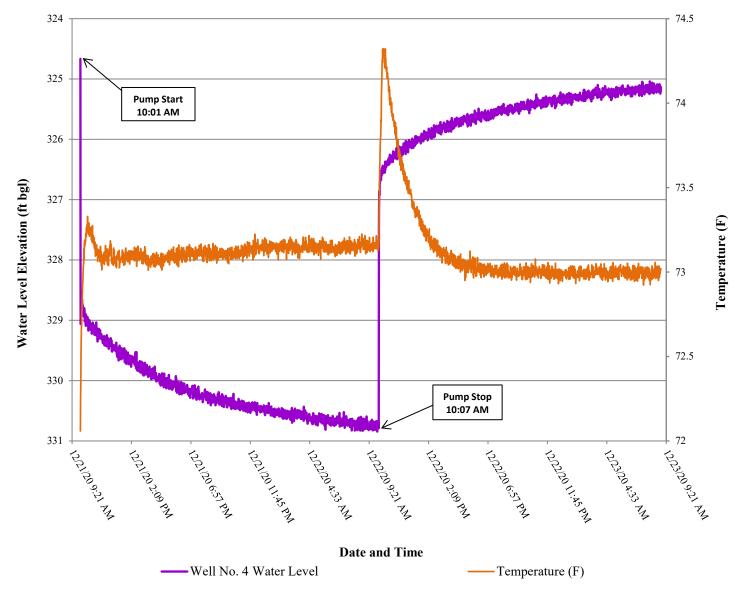


Figure 15: Aquifer test hydrograph of Well No. 4 (December 21, 2020)

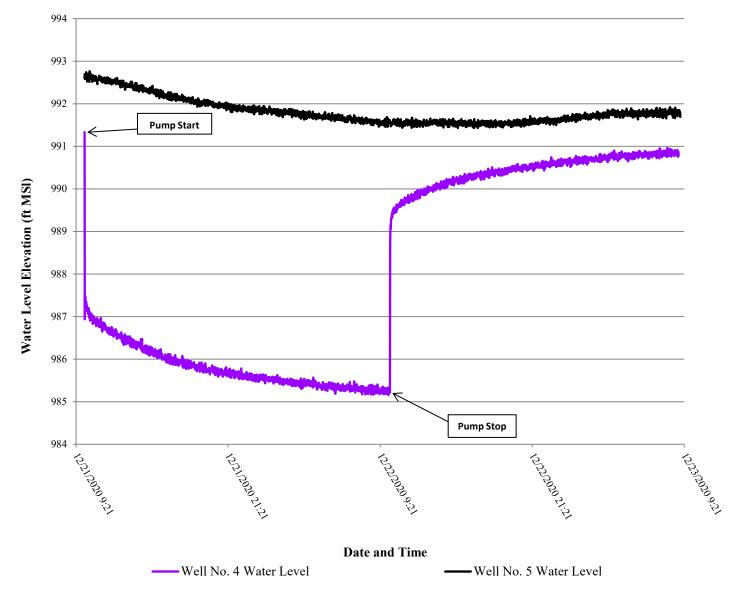


Figure 16: Aquifer test hydrograph of Well No. 4 and Observation Well No. 5 (December 21, 2020)

IV.2.4. Aquifer Test of Well No. 5 (December 23, 2020):

The aquifer test of Well No. 5 was conducted on December 23, 2020 with Well No. 5 as the observation well approximately 619 feet away from the pumping well. The pumping phase started at 9:56 A.M. on December 23, 2020; the water level was monitored for 24.2 hours of pumping and for 95.6 hours of recovery. Prior to the pumping phase of the aquifer test, the static water level in Well No. 5 was measured at 334.4 ft. bgl (991.6 ft. MSL) and 334.4 ft. bgl (988.6 ft. MSL) in Well No. 6.

Well No. 5 was pumped at an average rate of 12 gpm with a final measured pumping rate of 12 gpm with 5.95 feet of drawdown, resulting in a specific capacity of 2.00 gpm/ft. The Cooper-Jacob analysis resulted in a calculated transmissivity of 607.7 ft²/day, and a hydraulic conductivity of 2.6 ft./day. A maximum drawdown of 2.96 feet was observed in Well No. 6 indicating a hydraulic connection between the two wells. Due to the observed hydraulic connection, we calculated a storativity value for Well No. 6 of 5.73 x 10⁻⁵. Figure 17 provides a hydrograph of the pumping well and temperature over the duration of the aquifer test; Figure 18 provides a hydrograph of both the pumping and observation well over the duration of the test.

After an initial drawdown, the water level slowly declined 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. 6 (Figure 18). After the pump was shut off, recovery was measured in both wells; the water level in the pumping well recovered 90% in approximately 14 hours. There were no aquifer boundary conditions observed during the testing.



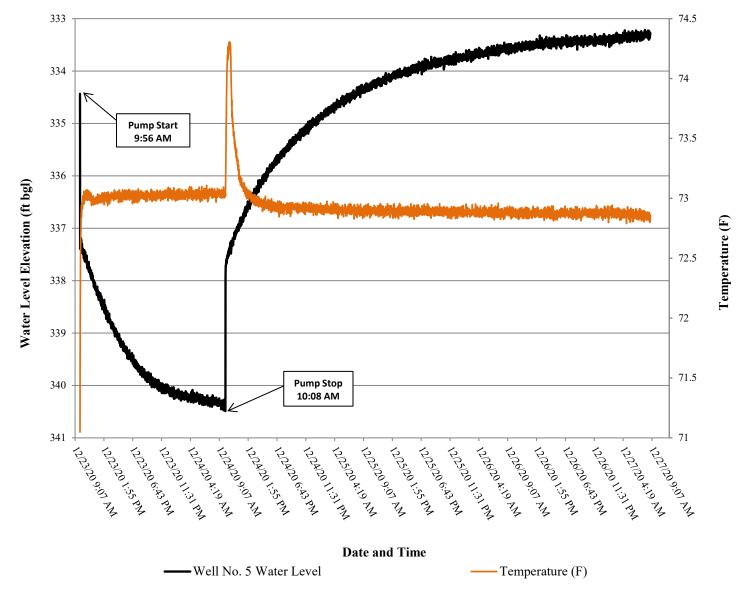


Figure 17: Aquifer test hydrograph of Well No. 5 (December 23, 2020)

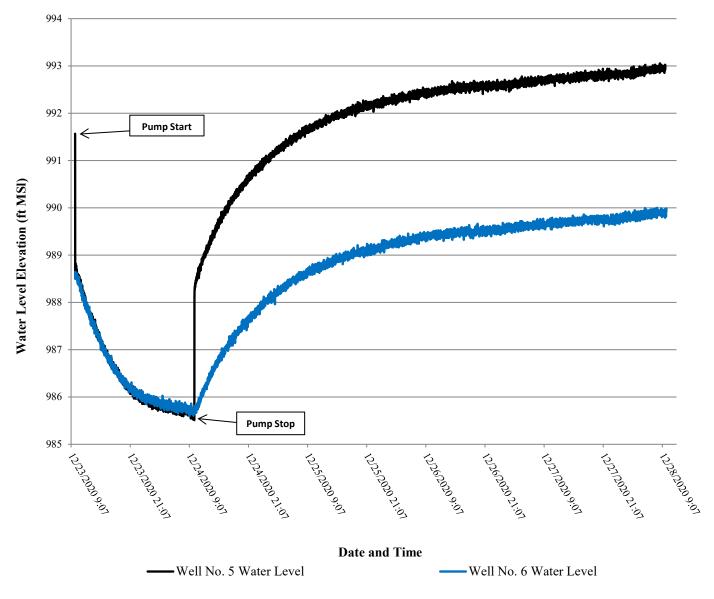


Figure 18: Aquifer test hydrograph of Well No. 5 and Observation Well No. 6 (December 23, 2020)

IV.2.5. Aquifer Test of Well No. 7 (January 6, 2021):

The aquifer test of Well No. 7 was conducted on January 6, 2021 with Well No. 8 as the observation well approximately 566 feet away from the pumping well. The pumping phase started at 9:51 A.M. on January 6, 2021; the water level was monitored for 24.3 hours of pumping and for 23.5 hours of recovery. Prior to the pumping phase of the aquifer test, the static water level in Well No. 7 was measured at 350.5 ft. bgl (981.5 ft. MSL) and 351.5 ft. bgl (983.5 ft. MSL) in Well No. 8.

Well No. 7 was pumped at an average rate of 13 gpm with a final measured pumping rate of 13 gpm with 4.50 feet of drawdown, resulting in a specific capacity of 2.98 gpm/ft. The Cooper-Jacob analysis resulted in a calculated transmissivity of 756.4 ft²/day, and a hydraulic conductivity of 3.3 ft./day. A maximum drawdown of 2.44 feet was observed in Well No. 8 indicating a hydraulic connection between the two wells. Due to the observed hydraulic connection, we calculated a storativity value for Well No. 8 of 2.54 x 10⁻⁵. Figure 19 provides a hydrograph of the pumping well and temperature over the duration of the aquifer test; Figure 20 provides a hydrograph of both the pumping and observation well over the duration of the test.

After an initial drawdown, the water level slowly declined 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 20). After the pump was shut off, recovery was measured in both wells; the water level in the pumping well recovered 90% in approximately 17 hours. There were no aquifer boundary conditions observed during the testing.



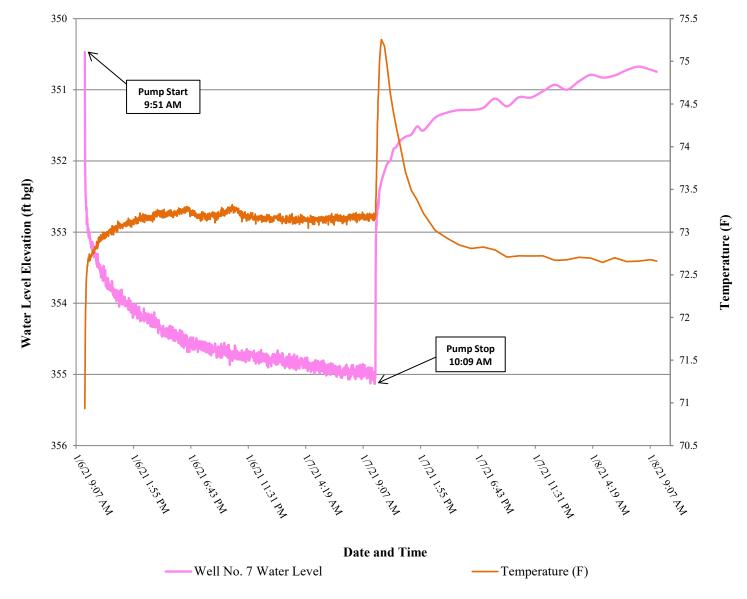


Figure 19: Aquifer test hydrograph of Well No. 7 (January 6, 2021)

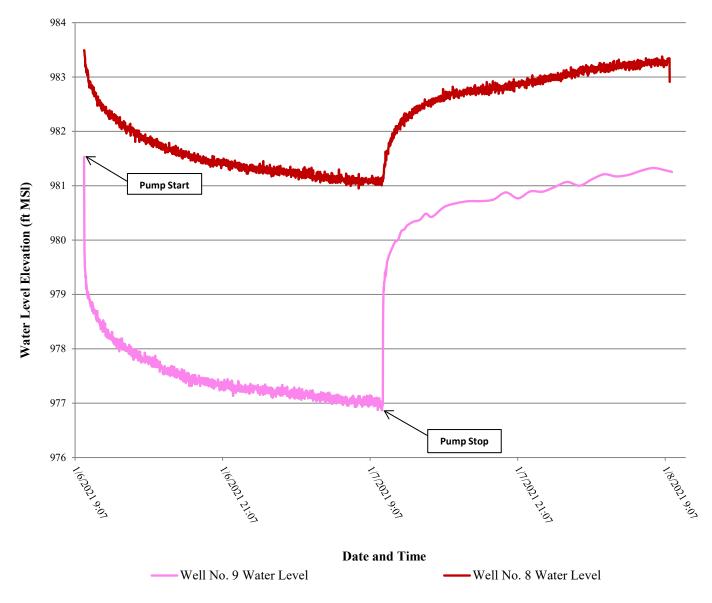


Figure 20: Aquifer test hydrograph of Well No. 7 and Observation Well No. 8 (January 6, 2021)

IV.2.6. Aquifer Test of Well No. 9 (January 4, 2021):

The aquifer test of Well No. 9 was conducted on January 4, 2021 with Well No. 4 as the observation well approximately 1,580 feet away from the pumping well. The pumping phase started at 10:20 A.M. on January 4, 2021; the water level was monitored for 24.0 hours of pumping and for 22.6 hours of recovery. Prior to the pumping phase of the aquifer test, the static water level in Well No. 9 was measured at 350.2 ft. bgl (990.8 ft. MSL) and 324.0 ft. bgl (992.0 ft. MSL) in Well No. 4.

Well No. 9 was pumped at an average rate of 9 gpm with a final measured pumping rate of 9 gpm with 3.40 feet of drawdown, resulting in a specific capacity of 2.65 gpm/ft. The Cooper-Jacob analysis resulted in a calculated transmissivity of 542.8 ft²/day, and a hydraulic conductivity of 2.4 ft./day. A maximum drawdown of 0.69 feet was observed in Well No. 4 indicating a hydraulic connection between the two wells. Due to the observed hydraulic connection, we calculated a storativity value for Well No. 4 of 6.51 x 10⁻⁵. Figure 21 provides a hydrograph of the pumping well and temperature over the duration of the aquifer test; Figure 22 provides a hydrograph of both the pumping and observation well over the duration of the test.

After an initial drawdown, the pumping rate was reduced to prevent the pumping level from reaching the pump. After the rate was reduced, the water level remained stable while moderately fluctuating for the remainder 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 22). After the pump was shut off, recovery was measured in both wells; the water level in the pumping well recovered 90% in approximately 19 hours. There were no aquifer boundary conditions observed during the testing.



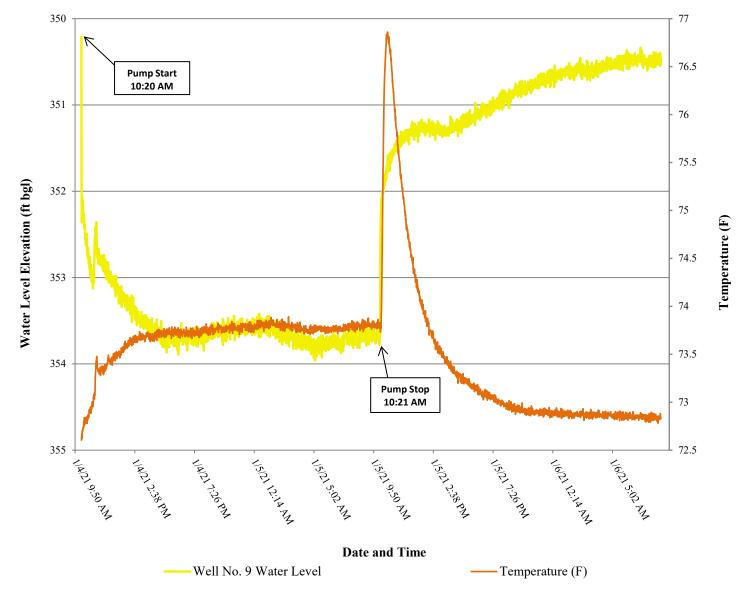


Figure 21: Aquifer test hydrograph of Well No. 9 (January 4, 2021)

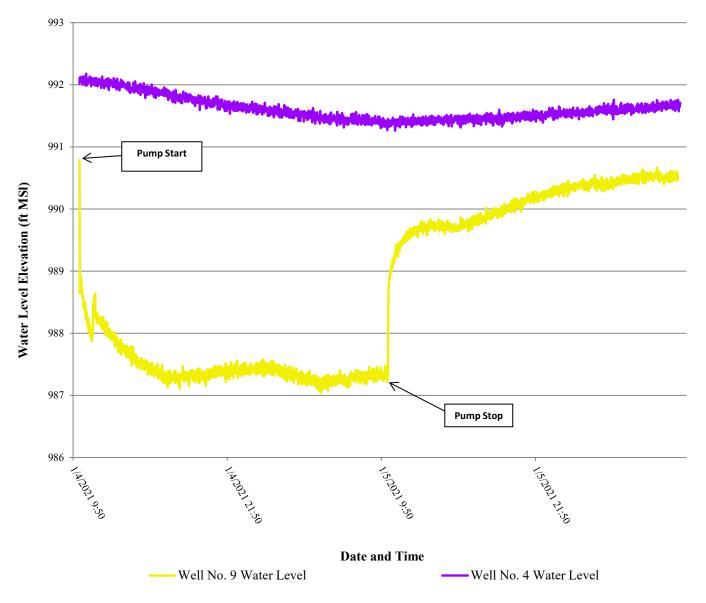


Figure 22: Aquifer test hydrograph of Well No. 9 and Observation Well No. 4 (January 4, 2021)

IV.2.7. Aquifer Test of Existing Well No. 1 (December 28, 2020):

The aquifer test of Ex. Well No. 1 was conducted on December 28, 2020 with Well No. 6 as the observation well approximately 622 feet away from the pumping well. The pumping phase started at 10:18 A.M. on December 28, 2020; 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 in Ex. Well No. 1 was measured at 329.3 ft. bgl (987.7 ft. MSL) and 333.0 ft. bgl (990.0 ft. MSL) in Well No. 6.

Ex. Well No. 1 was pumped at an average rate of 12 gpm with a final measured pumping rate of 12 gpm with 9.03 feet of drawdown, resulting in a specific capacity of 1.37 gpm/ft. The Cooper-Jacob analysis resulted in a calculated transmissivity of 293.5 ft²/day, and a hydraulic conductivity of 1.3 ft./day. A maximum drawdown of 3.47 feet was observed in Well No. 6 indicating a hydraulic connection between the two wells. Due to the observed hydraulic connection, we calculated a storativity value for Well No. 6 of 8.91 x 10⁻⁶. Figure 23 provides a hydrograph of the pumping well and temperature over the duration of the aquifer test; Figure 24 provides a hydrograph of both the pumping and observation well over the duration of the test.

After an initial drawdown, the water level slowly declined 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. 6 (Figure 24). After the pump was shut off, recovery was measured in both wells; the water level in the pumping well recovered 90% in approximately 15 hours. There were no aquifer boundary conditions observed during the testing.



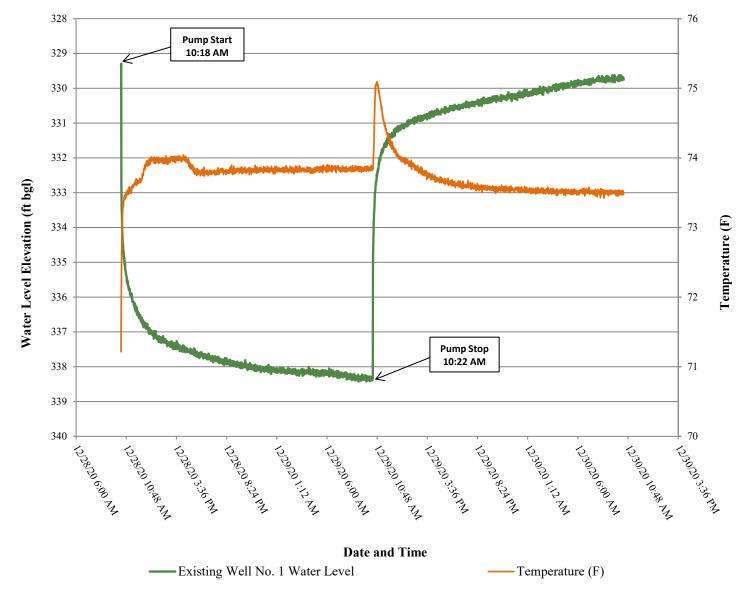


Figure 23: Aquifer test hydrograph of Existing Well No. 1 (December 28, 2020)

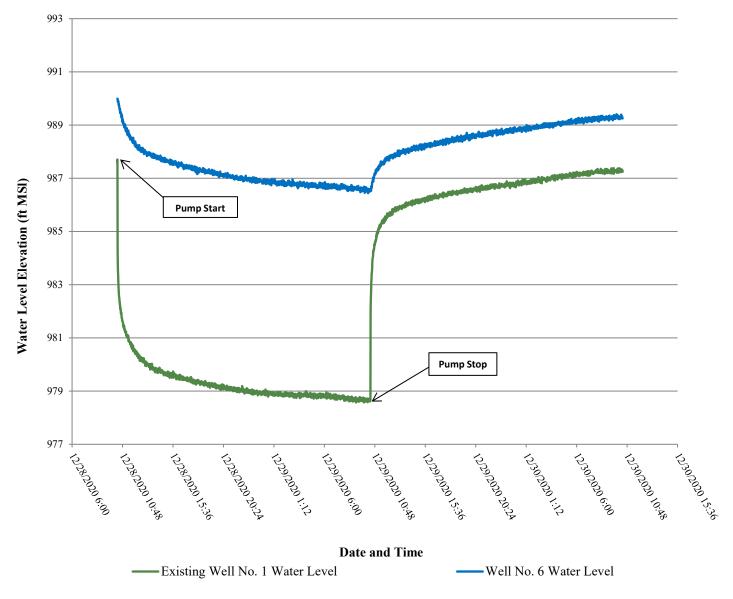


Figure 24: Aquifer test hydrograph of Existing Well No. 1 and Observation Well No. 6 (December 28, 2020)

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Table 3: Summary of aquifer test results

Test Date	Well	Average Pump Rate (gpm)	Final Pump Rate (gpm)	Drawdown (ft.)	Specific Capacity (gpm/ft.)	Transmissivity (ft²/d)	Storativity	Hydraulic Conductivity (ft./d)	Aquifer Thickness (ft.)	Well Efficiency
Dec. 15, 2020	No. 1	12	12	0.85	13.93	3,310.1	-	14.6	226	134%
	No. 2	-	-	0.57	-	1,544.2	1.99x10 ⁻⁴	6.8	226	-
Dec. 17,	No. 3	14	12	1.01	11.75	2,771.6	-	12.3	226	133%
2020	No. 2	-	-	0.87	-	1,393.5	2.42x10 ⁻⁴	6.2	226	-
Dec. 21, 2020	No. 4	12	12	6.12	1.94	510.7	-	2.2	231	106%
	No. 5	-	-	1.14	-	421.2	4.09x10 ⁻⁴	1.8	231	-
Dec. 23, 2020	No. 5	12	12	5.95	2.00	607.7	-	2.6	231	103%
	No. 6	-	-	2.96	-	155.9	5.73x10 ⁻⁵	0.7	231	-
Jan. 6, 2021	No. 7	13	13	4.50	2.98	756.4	-	3.3	228	129%
	No. 8	-	-	2.44	-	399.7	2.54x10 ⁻⁵	1.8	228	-
Jan. 4, 2021	No. 9	9	9	3.40	2.65	542.8	-	2.4	225	151%
	No. 4	-	-	0.69	-	477.4	6.51x10 ⁻⁵	2.1	231	-
Dec. 28, 2020	Ex. 1	12	12	9.03	1.37	293.5	-	1.3	231	154%
	No. 6	-	-	3.47	-	437.5	8.91x10 ⁻⁶	1.9	231	-

Note: ft. = feet; gpm = gallons per minute; d = day, pumping wells are highlighted in green, aquifer thickness for Wells 1, 3, 4, 6 and were valued based upon geophysical logs of nearby wells.

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 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 F provides a copy of the water quality reports.

Table 4 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). The results show all samples met the TCEQ MCLs. In various combinations, the concentrations of fluoride, iron, sulfate, or TDS surpassed the TCEQ SCLs in each tested well (Table 4). The elevated sulfate and TDS concentrations observed in the wells are not uncommon for the area. Groundwater flowing through gypsum and anhydrite layers found within the aquifer account for the elevated sulfate and TDS. According to TWDB report 174 "Ground-Water Resources of Blanco County, Texas," elevated levels of iron and fluoride are also not uncommon for the area. Concentrations above the SCL standards are not considered health risks but may affect the taste and odor of the water.



Table 4: Summary of the water quality analysis results

		Cl	Conductivity (umhos/cm)	F	Fe	NO3	Mn	pН	SO4	Hardness (as CaCO3)	TDS	TC/E. coli		
Well	Sample		TCEQ MCLs & SCLs											
	Data	300 ²		41 & 22	0.3^{2}	10 ¹	0.05^{2}	≥7 ²	300 ²		1000 ²	Presence		
Ex. No. 1	12/28/20	48.0	3.990	1.99	0.300	< 0.0200	0.006	7.5	1,630	2,090	3,060	Absent/Present		
No. 1	12/16/20	35.0	3.420	2.22	0.095	0.0356	0.00582	7.3	1,590	1,830	2,620	Absent		
No. 3	12/16/20	42.4	3.830	2.06	0.117	< 0.02	0.00698	7.5	2,060	1,980	2,890	Absent		
No. 4	12/21/20	42.2	3.580	2.21	0.249	< 0.02	0.00548	7.3	1,810	1,730	2,590	Absent		
No. 5	12/28/20	44.0	3.600	2.15	0.340	< 0.0200	0.005	7.5	1,830	1,870	2,670	Absent		
No. 7	1/04/21	41.9	1.830	2.13	0.393	<0.0200	0.008	7.7	1,660	1,360	2,680	Absent		
No. 9	1/05/21	43.6	3.460	2.03	0.046	< 0.0200	0.007	7.6	2,010	2,050	2,880	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 & E.C.).



IV.4. Groundwater Availability

Based upon the analysis of the aquifer tests, drawdown estimates were made at various distances from the pumping well after 10 years and 30 years. Figures 25 to 38 provide distance-drawdown plots for a single pumping well producing at a rate of 5 gpm for 1.17 hours a day (350 gallons per day) as well as distance-drawdown plots for a single pumping well producing at a rate of 15 gpm for 0.39 hours a day (350 gallons per day) to represent the well owners that may pump at a higher rate for a shorter duration. This 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 for 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
- Future impacts to usable groundwater due to unforeseen or unpredictable contamination.

Drawdown estimates were calculated using the Theis equation. The Theis equation employs the following assumptions:

- 1. The water bearing formation is uniform in character and the hydraulic conductivity is the same in all directions:
- 2. The formation is uniform in thickness and infinite in areal extent;
- 3. The formation receives no recharge from any source;
- 4. The pumped well penetrates, and receives water from, the full thickness of the water bearing formation;
- 5. The water removed from storage is discharges 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 throughout 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 Middle Trinity Aquifer. These include assumptions 1, 3, 7 and 8. The Middle Trinity Aquifer is a karst aquifer and is fractured, not uniform or homogenous in character or in its hydrogeologic properties (transmissivity and storativity). 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).

Since the Theis equation assumes (i) that all water is derived from storage and (ii) that the aquifer receives no recharge, the Theis equation overestimates drawdown within a well that is located in an aquifer that receives recharge rapidly. For this reason, using the Theis equation to calculate drawdown over periods of time greater than when water from capture exceeds water from storage leads to an exaggerated estimate of drawdown.

Table 5 and Table 6 provides a summary of the results from the distance-drawdown calculations. Estimates of drawdown are based on the following assumptions:

- Total daily water demand (entire subdivision) = 42.73 acre-feet/year
- Total daily water demand (per housing unit) = 0.39 acre-feet/year = 350 gpd;
- The individual well will first be pumped at 5 gpm for 1.17 hours per day for Table 5 and again at 15 gpm for 0.39 hours per day for Table 6; and
- Transmissivity values calculated from each respective pumping well were used in the drawdown estimates; and
- The storativity value calculated from each respective aquifer test was 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. 5 gpm Production

Based upon the average drawdown calculated from distance-drawdown projections, the drawdown after 10 years of production at 5 gpm and a well spacing of 100 feet results in 0.64 feet of well interference. At a spacing of 250 feet the well interference reduces to 0.43 feet (drawdown) and at a spacing of 500 feet the well interference goes to 0.28 feet (drawdown).

The drawdown after 30 years of production at 5 gpm and a well spacing of 100 feet results in 0.64 feet of well interference. At a spacing of 250 feet the well interference reduces to 0.43 feet (drawdown) and at a spacing of 500 feet the well interference goes to 0.29 feet (drawdown).

Table 5: Summary of distance-drawdown calculations (5 gpm)

	Drawdown at Pumped Well After 10-Years of Pumping	Drawdown at Pumped Well After 30-Years of Pumping	Drawdown at Nearest Property Boundary After 10-Years of Pumping		Property Bo	at Nearest undary After of Pumping	Dist. to Outer Edges of Cone of Depression - 10 years	Dist. to Outer Edges of Cone of Depression - 30 years
Well	(ft)	(ft)	Property Boundary Distance (ft)	Drawdown (ft)	Property Boundary Distance (ft)	Drawdown (ft)	(feet)	(feet)
No. 1	0.41	0.41	380	0.09	380	0.09	100	100
No. 3	0.04	0.04	1,035	0.03	1,035	0.03	100	100
No. 4	2.27	2.28	466	0.48	466	0.49	100	100
No. 5	2.18	2.19	411	0.44	411	0.45	100	100
No. 7	1.85	1.86	1,304	0.19	1,304	0.20	100	100
No. 9	2.41	2.41	106	0.71	106	0.72	100	100
Ex. No. 1	4.81	4.82	1,193	0.51	1,193	0.53	100	100



IV.4.2. 15 gpm Production

Based upon the average drawdown calculated from distance-drawdown projections, the drawdown after 10 years of production at 15 gpm and a well spacing of 100 feet results in 1.41 feet of well interference. At a spacing of 250 feet the well interference reduces to 0.80 feet (drawdown) and at a spacing of 500 feet the well interference goes to 0.43 feet (drawdown).

The drawdown after 30 years of production at 15 gpm and a well spacing of 100 feet results in 1.41 feet of well interference. At a spacing of 250 feet the well interference reduces to 0.81 feet (drawdown) and at a spacing of 500 feet the well interference goes to 0.43 feet (drawdown).

Table 6: Summary of distance-drawdown calculations (15 gpm)

	Drawdown at Pumped Well After 10-Years of Pumping	Drawdown at Pumped Well After 30-Years of Pumping	Drawdown at Nearest Property Boundary After 10-Years of Pumping		Property Bo	at Nearest undary After of Pumping	Dist. to Outer Edges of Cone of Depression - 10 years	Dist. to Outer Edges of Cone of Depression - 30 years
Well	(ft)	(ft)	Property Boundary Distance (ft)	Drawdown (ft)	Property Boundary Distance (ft)	Drawdown (ft)	(feet)	(feet)
No. 1	1.13	1.13	380	1.18	380	1.18	100	100
No. 3	1.32	1.32	1,035	0.03	1,035	0.03	100	100
No. 4	6.16	6.17	466	0.23	466	0.24	100	100
No. 5	5.99	6.00	411	0.80	411	0.80	100	100
No. 7	5.13	5.13	1,304	0.22	1,304	0.23	100	100
No. 9	6.60	6.61	106	1.54	106	1.55	100	100
Ex. No. 1	13.29	13.30	1,193	0.62	1,193	0.64	100	100

IV.4.3. Summary of Distance Drawdown and Well Spacing

We recommend that the Legacy Hills Subdivision wells be spaced a minimum distance of 100 feet for wells pumped at rates up to 15 gpm. If possible, we recommend landowners spacing their wells as far as possible to minimize 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.





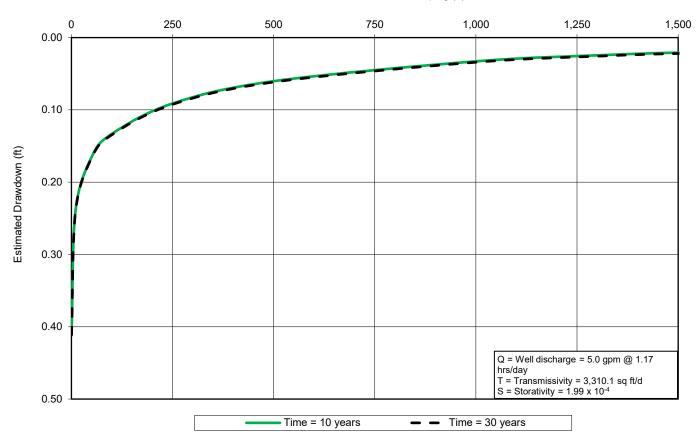


Figure 25: Distance drawdown plot for Well No. 1 (5 gpm)





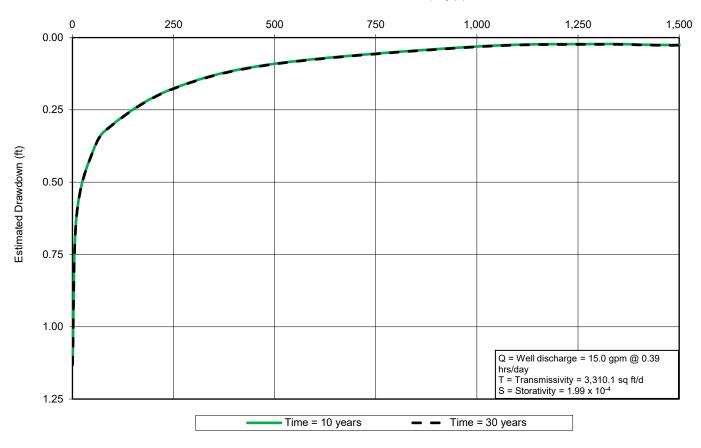


Figure 26: Distance drawdown plot for Well No. 1 (15 gpm)





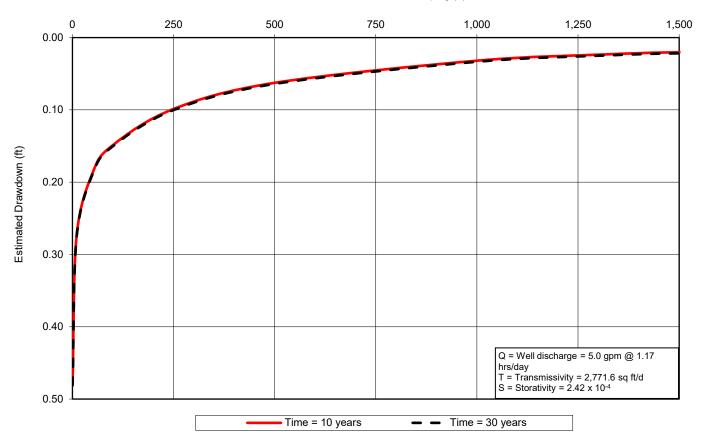


Figure 27: Distance drawdown plot for Well No. 3 (5 gpm)



Distance From Center of Pumping (ft)

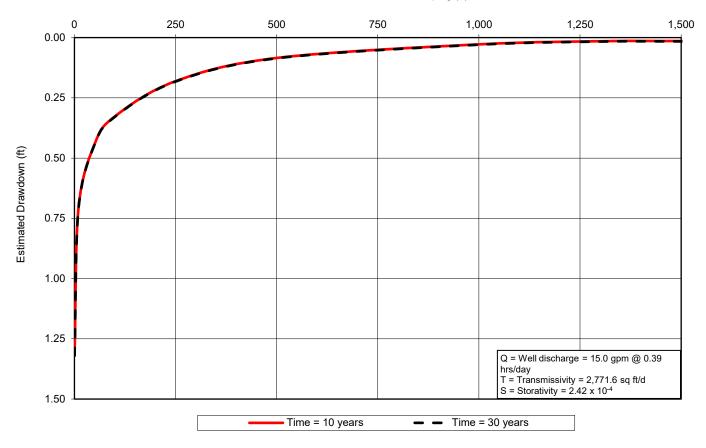


Figure 28: Distance drawdown plot for Well No. 3 (15 gpm)





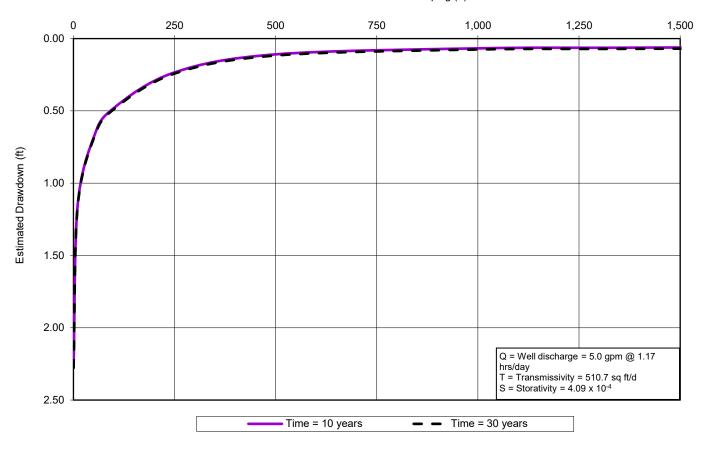


Figure 29: Distance drawdown plot for Well No. 4 (5 gpm)



Distance From Center of Pumping (ft)

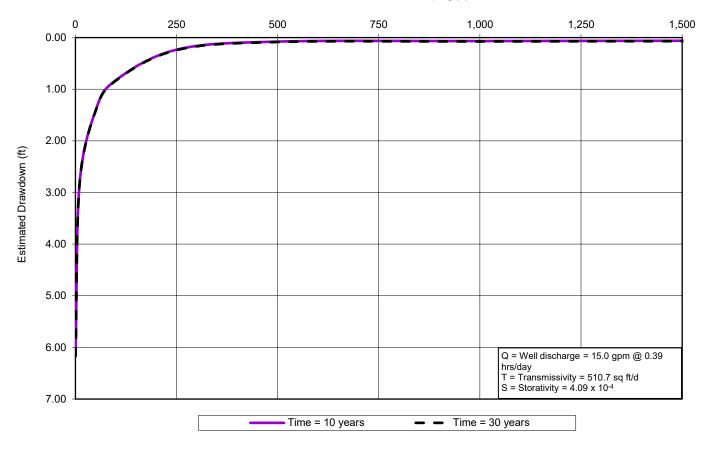
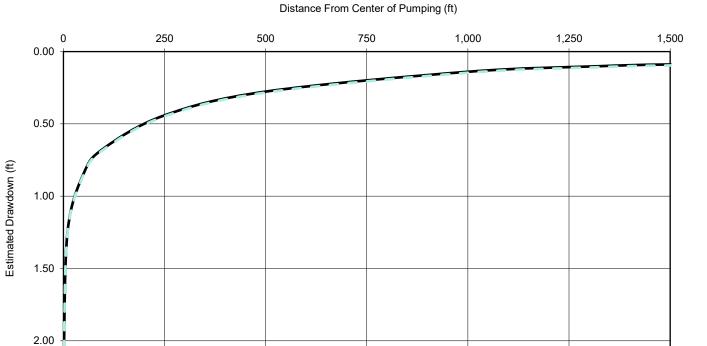


Figure 30: Distance drawdown plot for Well No. 4 (15 gpm)





Time = 10 years

Figure 31: Distance drawdown plot for Well No. 5 (5 gpm)



2.50

Q = Well discharge = 5.0 gpm @ 1.17 hrs/day T = Transmissivity = 607.7 sq ft/d S = Storativity = 5.73 x 10⁻⁵

Time = 30 years



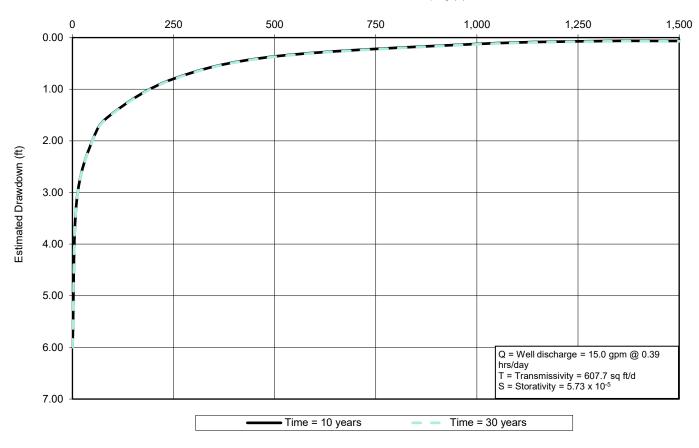


Figure 32: Distance drawdown plot for Well No. 5 (15 gpm)





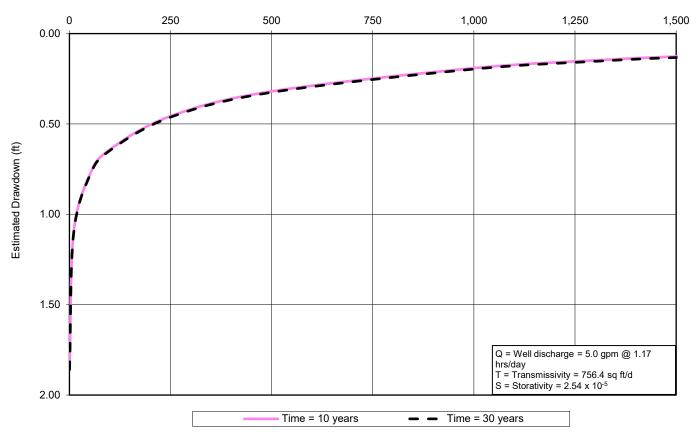


Figure 33: Distance drawdown plot for Well No. 7 (5 gpm)





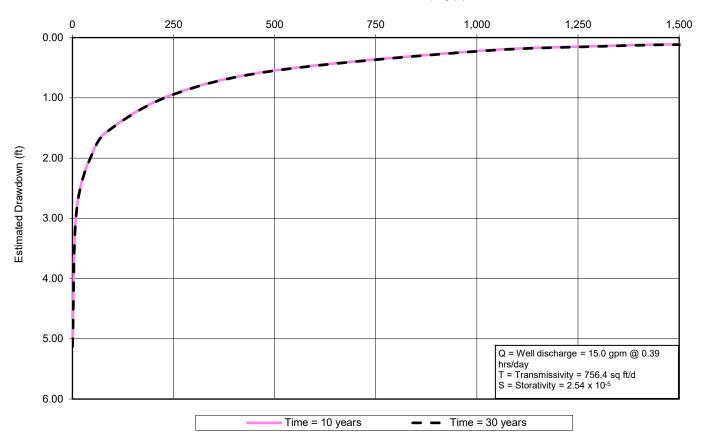
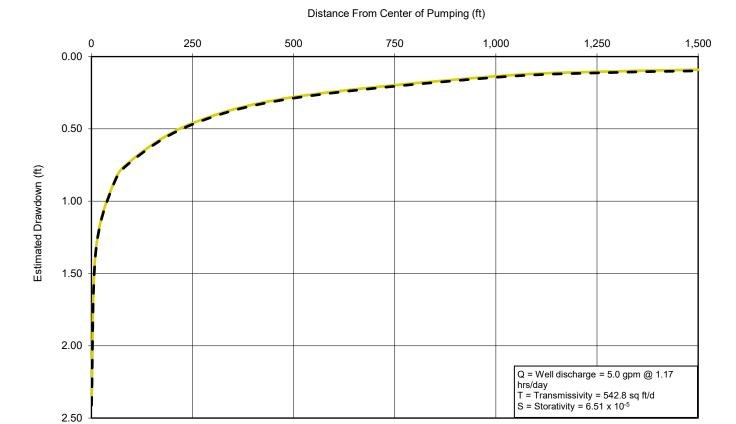


Figure 34: Distance drawdown plot for Well No. 7 (15 gpm)





Time = 10 years

Figure 35: Distance drawdown plot for Well No. 9 (5 gpm)



Time = 30 years

Distance From Center of Pumping (ft)

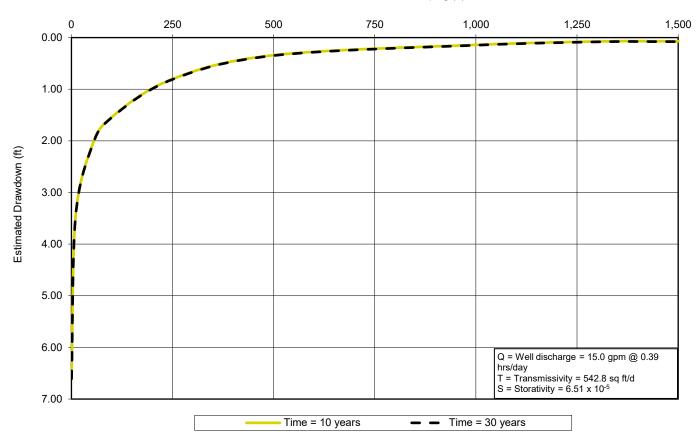


Figure 36: Distance drawdown plot for Well No. 9 (15 gpm)





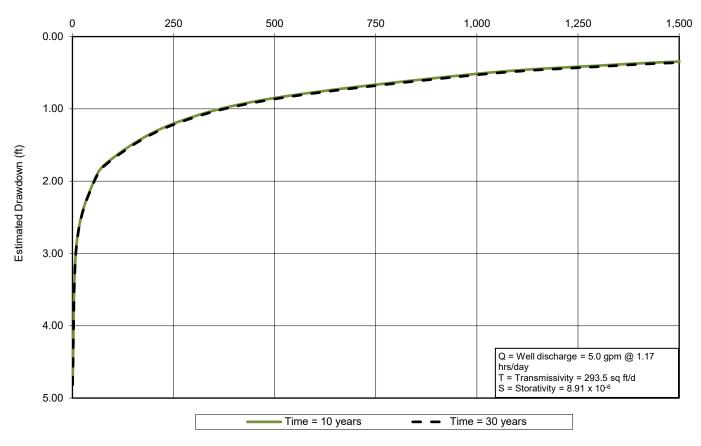


Figure 37: Distance drawdown plot for Ex. Well No. 1 (5 gpm)





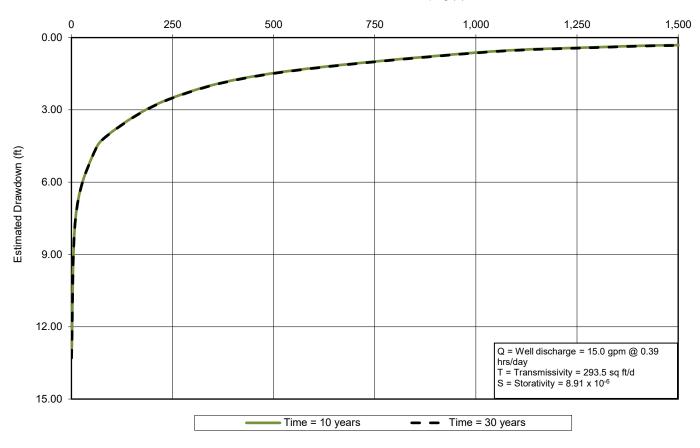


Figure 38: Distance drawdown plot for Ex. Well No. 1 (15 gpm)



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 form, certify that adequate groundwater is available from the underlying aquifer to supply the anticipated use of the proposed subdivision.

The Middle Trinity Aquifer at the Legacy Hills Subdivision is under unconfined conditions, exhibits variable yield and water quality and is susceptible to reduction in yield during prolonged drought. For these reasons we recommend that i) each homeowner construct their well as deep as practical to the base of the Cow Creek Limestone Member within the Middle Trinity Aquifer to provide the maximum possible yield and; ii) set their pumps as deep as practical to protect from lowering water levels during drought.



Section VI: References

- Ashworth, J. B., 1983, Ground-water availability of the Lower Cretaceous formations in the Hill Country of south-central Texas: Texas Department of Water Resources Report 273,173 p.
- Barlow, P.M., and Leake, S.A., 2012. Streamflow depletion by wells—Understanding and managing the effects of groundwater pumping on streamflow. U.S. Geological Survey Circular 1376. Reston, Virginia: USGS.
- Bredehoeft, J.D., and T.J. Durbin. 2009. Ground water development—The time to full capture problem. Ground Water 47, no. 4: 506–514. DOI:10.1111/j.1745-6584.2008. 00538.x
- Driscoll, F.G., 1986. Groundwater and Wells (2nd. Ed.): Johnson Division, St. Paul, Minnesota.
- Folleet, C.R., 1973. Ground-Water Resources of Blanco County, Texas: Texas Department of Water Resources Report 174.
- George, W. O., 1952. Geology and ground-water resources of Comal County, Tex., with sections on surface-water runoff, by S. D. Breeding and Chemical character of the water, by W. W. Hastings: U.S. Geol. Survey Water-Supply Paper 1138, 126 p.
- Konikow L.F. and Leake S.A., 2014, Depletion and Capture: Revisiting "The Source of Water Derived from Wells", Vol. 52, Groundwater–Focus Issue 2014, p. 100–111.
- Loucks, R.G., 1977. Porosity Development and distribution in shoal water carbonate complexes-subsurface Pearsall Formation (Lower Cretaceous) South Texas. In D.G. Bebout, and R.G. Loucks, eds., Cretaceous Carbonates of Texas and Mexico: Applications to Subsurface Exploration, Bureau of Economic Geology, University of Texas at Austin Report of Investigations No. 89, p 97-126.
- McGeehee, R.V., 1979. Precambrian Rocks of the Southeastern Llano Region, Texas. Texas Bureau of Economic Geology, Geological Circular 79-3, 36 p
- Preston, R.D., Pavilcek, D.J., Bluntzer, R.L., and Derton, J., 1996. The Paleozoic and Related Aquifers of Central Texas. TWDB Report 346, 77 p.
- Theis, C.V., 1940. The source of water derived from wells—Essential factors controlling the response of an aquifer to development. Civil Engineering 10: 277–280.
- Walton, W.C. 2011. Aquifer system response time and groundwater supply management. Ground Water 49, no. 2: 126–127.
- Whitney, M. I., 1952. Some zone-marker fossils of the Glen Rose Formation of central Texas: Jour. Paleontology, v. 26, p. 65-73.



Wierman, D. A., Broun, A. S., Hunt, B. B., 2010, Hydrogeologic Atlas of the Hill Country Trinity Aquifer, Blanco, Hays, and Travis Counties, Central Texas. Hays-Trinity Groundwater Conservation District, United States.



Appendix A

Certification of Groundwater Availability for Platting Form

CERTIFICATION OF GROUNDWATER AVAILABILITY FOR PLATTING FORM

Use of this form: If required by a municipal authority pursuant to \$212.0101, Texas Local Government Code or a county authority pursuant to \$232.0031, Texas Local Government Code, the plat applicant and the Texas licensed professional engineer or Texas licensed professional geoscientist shall use this form based upon the requirements of Title 30, Texas Administrative Code, 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 \$\$212.004 and 232.001, Texas Local Government Code. The form and 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 \$35.019 or Chapter 36 of the Texas Water Code.

	Name of Proposed Subdivision: Legacy Hills Subdivision
	Any Previous Name Which Identifies the Tract of Land:
	Property Owner's Name(s): Lone Star Land Partners, LLC Address: 704 Main Street Blanco, TX 78606 Phone: 800-511-2430 Fax:
	Plat Applicant's Name: Lone Star Land Partners, LLC Address: 704 Main Street Blanco, TX 78606 Phone: 800-511-2430
	Fax:
	Licensed Professional Engineer or Geoscientist Name: Kaveh Khorzad, P.G. Address: 317 Ranch Road 620 S., Suite 203, Lakeway, TX 78734 Phone: 512-773-3226 Fax:
	Certificate Number: TBPG License No: 1126
	Location and Property Description of Proposed Subdivision: ~7.2 miles west of the City of Dripping Springs, TX on Highway 290.
	Tax Assessor Parcel Number(s). Book: Map: Parcel: Blanco County: 8323, 8319 & 8320
opo	sed Subdivision Information (30 TAC, §230.5).
•	Purpose of Proposed Subdivision (single family/multi-family residential, non-residential, commercial):single family
	Size of Proposed Subdivision (acres): Phase I: 643
	Number of Proposed Lots: 109
	Average Size of Proposed Lots (acres): 5.90
•	Anticipated Method of Water Distribution. Expansion of Existing Public Water Supply System: New (Proposed) Public Water Supply System: Individual Water Wells to Serve Individual Lots: Combination of Methods: Yes Description (if needed):
3.	Additional Information (if required by the municipal or county authority):

Note: If public water supply system is anticipated, written application for service to existing water providers within a ½-mile radius should be attached to this form (30 TAC §230.5(f)).

Projected Water Demand Estimate (30 TAC, §230.6).

14. Residential Water Demand Estimate at Full Build Out (includes both single family and multi-family residential).

Number of Proposed Housing Units (single and multi-family): 109 single family housing units

Average Number of Persons per Housing Unit: 3.5 persons Gallons of Water Required per Person per Day: 100 gallons per capita per day (gpcd) Water Demand per Housing Unit per year (acre feet/year):0.39 acre-ft (assuming 350 gpcd) Total Expected Residential Water Demand per Year (acre feet/year): 42.73 acre-ft Non-residential Water Demand Estimate at Full Build Out. Type(s) of Non-residential Water Uses: N/A Water Demand per Type per Year (acre feet/year): 42.73 Total Water Demand Estimate at Full Build Out (acre feet/year): 42.73 acre-ft Sources of Information Used for Demand Estimates: Blanco County development rules and regulations General Groundwater Resource Information (30 TAC, §230.7). Identify and describe, using Texas Water Development Board names, the aquifer(s) which underlies the proposed subdivision: Users may refer to Aquifers of Texas (Texas Water Development Board Report 345, 1995) to obtain general information pertaining to the state's aquifers. This reference is available via the Internet (www.twdb.state.tx.us). Trinity Aquifer Obtaining Site-Specific Groundwater Data (30 TAC, §230.8). Have all known existing, abandoned, and inoperative wells within the proposed subdivision been located, identified, and shown (Ye) on the plat as required under §230.8(b)? No Were the geologic and groundwater resource factors identified under §230.7(b) considered in planning and designing the aquifer test required under §230.8(c)? (es No Have test and observation wells been located, drilled, logged, completed, developed, and shown on the plat as required by §230.8(c)(1 though 4)? (Ye) 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 (§230.8(c)(5))? No Has an aquifer test been conducted which meets the requirements of §§230.8(c)(1 and 6)? No Were existing wells or previous aquifer test data used? No If yes, did they meet the requirements of §230.8(c)(7)? No Were additional observation wells or aquifer testing utilized? (Vo) If expansion of an existing public water supply system or a new public water supply system is the anticipated method of water distribution for the proposed subdivision, site-specific groundwater data shall be developed under the requirements of 30 TAC, Chapter 290, Subchapter D (related to 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 §230.8(a). Determination of Groundwater Quality (30 TAC, §230.9). Have water quality samples been collected as required by §230.9? No Has a water quality analysis been performed which meets the requirements of §230.9? No Determination of Groundwater Availability (30 TAC, §230.10). Have the aguifer parameters required by §230.10(c) been determined? No If so, provide the aguifer parameters as determined. Rate of yield and drawdown: (See attached Table 3) Specific capacity: (See attached Table 3 & Appendix D) Efficiency of the pumped well: (See attached Table 3 & Appendix E) Transmissivity: (See attached Table 3 & Appendix D) Coefficient of storage: (See attached Table 3 & Appendix D) Hydraulic conductivity: (See attached Table 3) Were any recharge or barrier boundaries detected? If yes, please describe: Thickness of aquifer(s): (See attached Table 3) Have time-drawdown determinations been calculated as required under §230.10(d)(1) No Have distance-drawdown determinations been calculated as required under §230.10(d)(2)? No

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Note:

Has the anticipated method of water delivery, the annual groundwater demand estimates at full build out, and geologic and 34. groundwater information been taken into account in making these determinations? No 35.

No

Have well interference determinations been made as required under §230.10(d)(3)?

Has the water quality analysis required under §230.9 been compared to primary and secondary public drinking water standards as required under §230.10(e)? No

Does the concentration of any analyzed constituent exceed the standards?
If yes, please list the constituent(s) and concentration measure(s) which exceed standards: See Section IV.3
Groundwater Availability and Usability Statements (30 TAC, §230.11(a) and (b)).
36. Drawdown of the aquifer at the pumped well(s) is estimated to be feet over a 10-year period and feet over
a 30-year period. See Attached Tables 5 & 6
37. Drawdown of the aquifer at the property boundary is estimated to be feet over a 10-year period and feet
over a 30-year period. See Attached Tables 5 & 6
38. The distance from the pumped well(s) to the outer edges of the cone(s)-of-depression is estimated to be
10-year period andfeet over a 30-year period. See Attached Tables 5 & 6
39. The recommended minimum spacing limit between wells is 100 feet with a recommended well yield of <15 gallon
per minute per well.
40. Available groundwater is / is not (circle one) of sufficient quality to meet the intended use of the platted subdivision.
41. 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
Texas Licensed Professional Geoscientist.
42. I, <u>Kaveh Khorzad</u> , Texas Licensed Professional Engineer or Texas Licensed Professional Geoscientist (circle which
applies), certificate number 1126, based on best professional judgement, 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.
Date: 1/19/2021 (affix seal)

Adopted January 23, 2003

Effective February 13, 2003



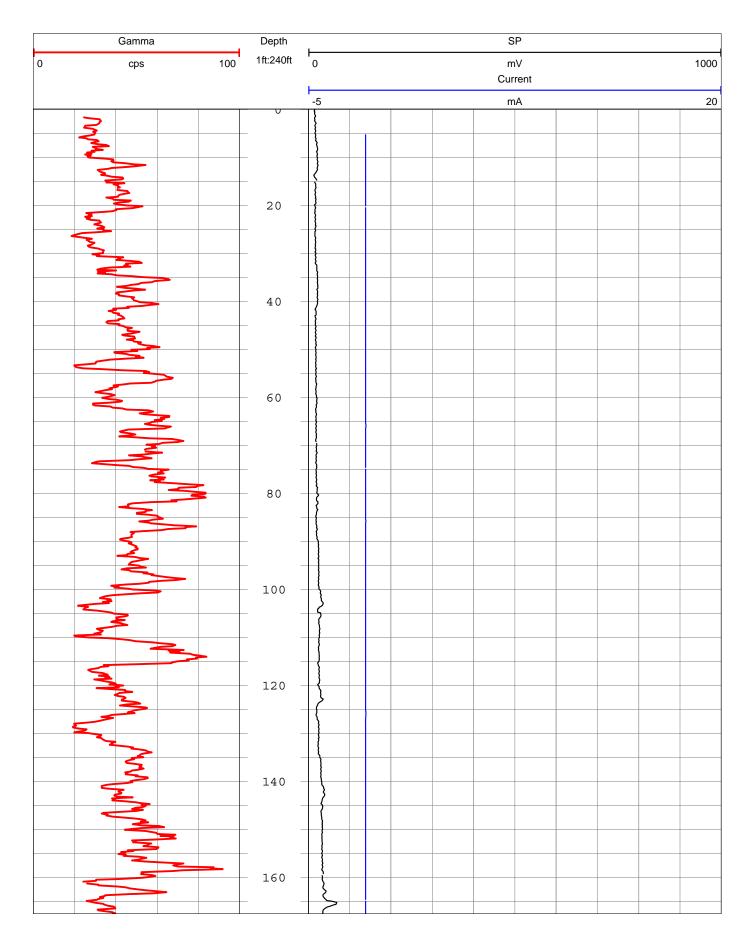
1-25-21

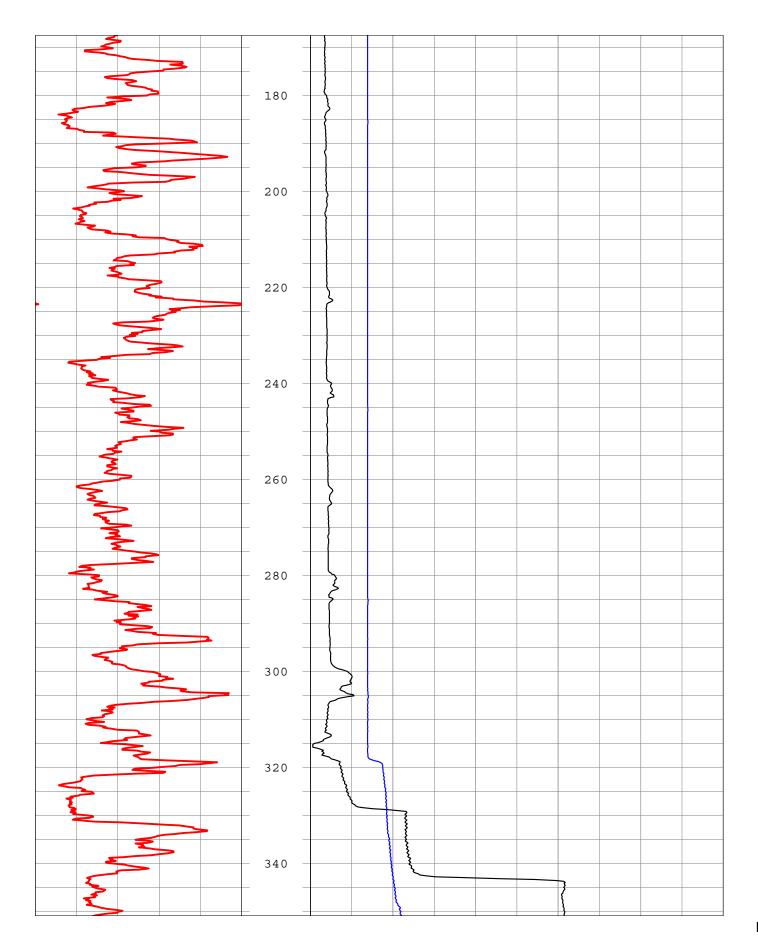
Appendix B

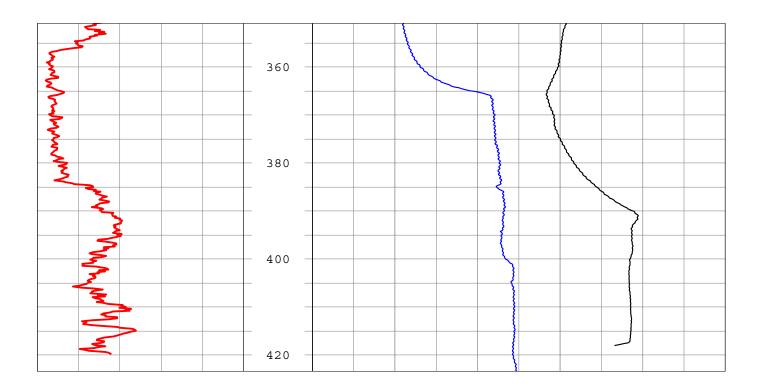
Geophysical Logs













Blanco-Pedernales Groundwater Conservation District

Borehole Name or #: Legacy Hills Subdivision New Well #5

Logs: GR RES

Logging Dates: 12/17/2020



601 West Main, P. O. B	ox 1516, Johnson City	y, TX 78636 (8	330) 868-9196	manager@blancogw.org
------------------------	-----------------------	----------------	---------------	----------------------

Well Owner: Legacy Hills Subdivision Well Regist. #: 20200183

Latitude: 30* 12' 26.4" Longitude: 98* 15' 33.2" Blanco County, Texas

Elevation MSL: Topo: 1310 GPS: Google Earth: GPS Datum: NAD 27

Borehole Data

Drilling Contractor: Apex Drilling Date Drilled: 12/7/2020

Measuring Point: 2.0 Feet Above Ground Level Driller TD: 425

Depth Reference: Ground Level Logger TD: 424.5

Water Level: 333.6 Feet Below Measuring Point

	Bit	Record		Casing Record			
Run	Bit Size	From	То	PVC / Steel	Size	From	То
1	8.5	0	50	PVC	4.5	+ 2.0	425
2	6.5	50	425				
3							

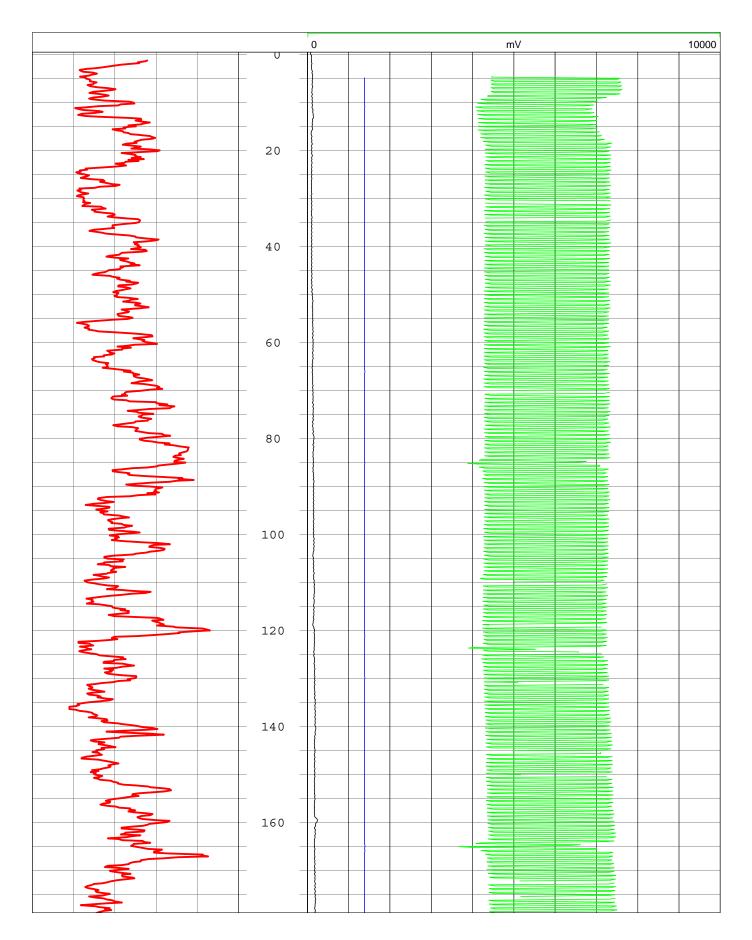
Logging Data

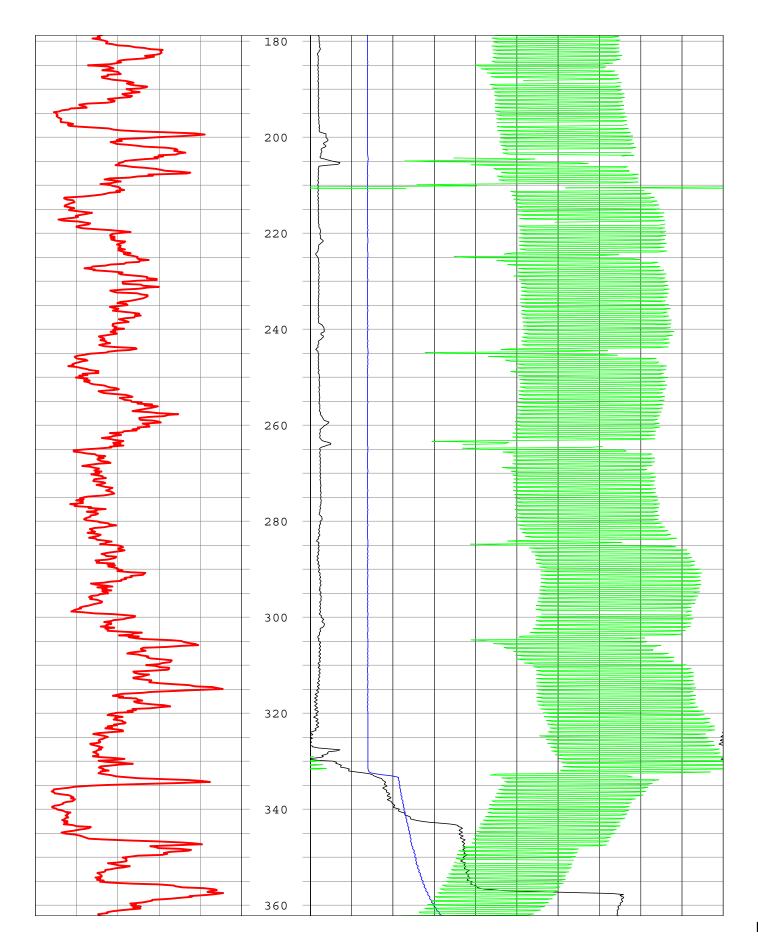
Logged By: R. Fieseler Witness: None

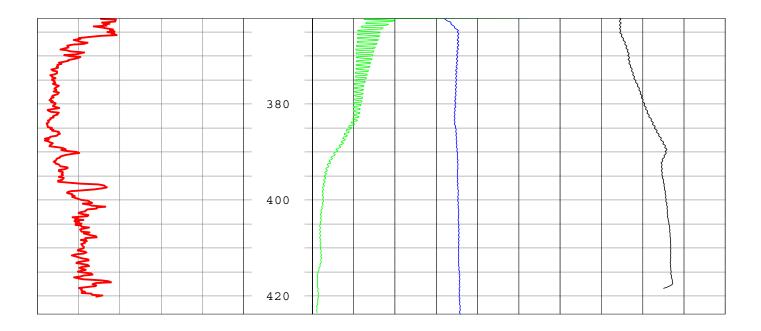
Log Type	Run #	Up / Down	From	То	Feet / Min.
GR RES	1	UP	424	0	15
	2				15
	3				
	4				

Comments:

	Gamma		Depth	1	SP	
0	cps	100	1ft:240ft	0	mV Current	1000
				-5	mA V8	20









Blanco-Pedernales Groundwater Conservation District

Borehole Name or #: Legacy Hills Subdivision New Well #8

Logs: GR RES

Logging Dates: 12/17/2020



601 West Main, P. O. Box 1516, Johnson City, TX 78636 (830) 868-9196 manager@blancogw.or	601 West Main. P. O. Box 15	6. Johnson City	v. TX 78636 (830	0) 868-9196 mana	ger@blancogw.org
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Well Owner: Legacy Hills Subdivision Well Regist. #: 20200186

Latitude: 30* 12' 55.1" Longitude: 98* 15' 05.2" Blanco County, Texas

Elevation MSL: Topo: 1335 GPS: Google Earth: GPS Datum: NAD 27

Drilling Contractor: Apex Drilling Date Drilled: 12/11/2020

Measuring Point: 2.0 Feet Above Ground Level Driller TD: 460

Depth Reference: Ground Level Logger TD: 458

Water Level: 354 Feet Below Measuring Point

	Bit	Record		Casing Record			
Run	Bit Size	From	То	PVC / Steel	Size	From	То
1	8.5	0	50	PVC	4.5	+2	460
2	6.5	50	460				
3							

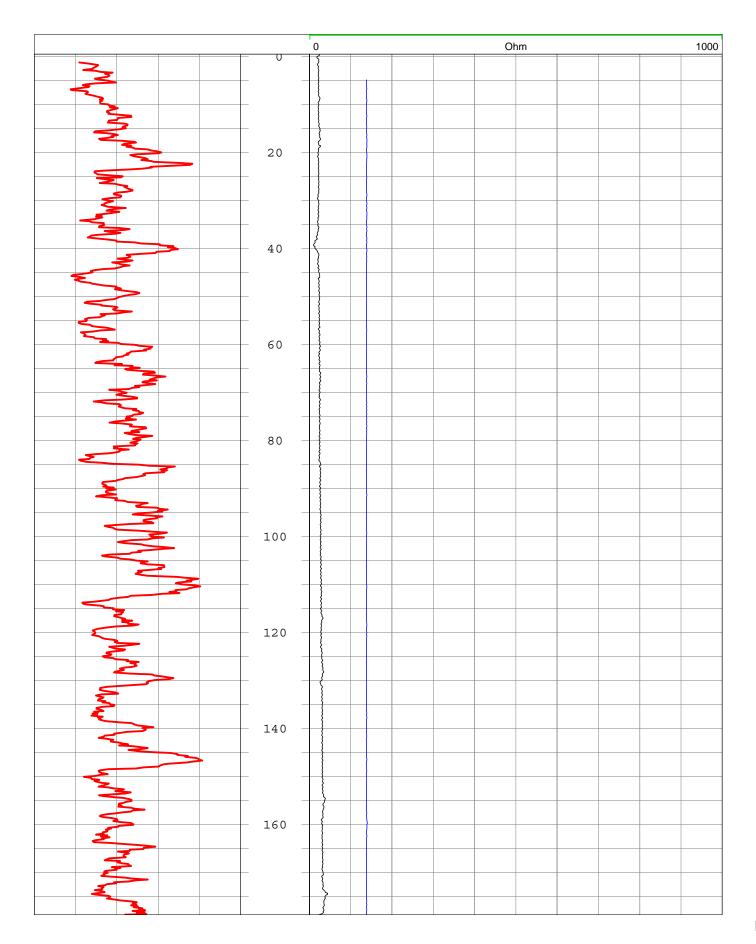
Logging Data

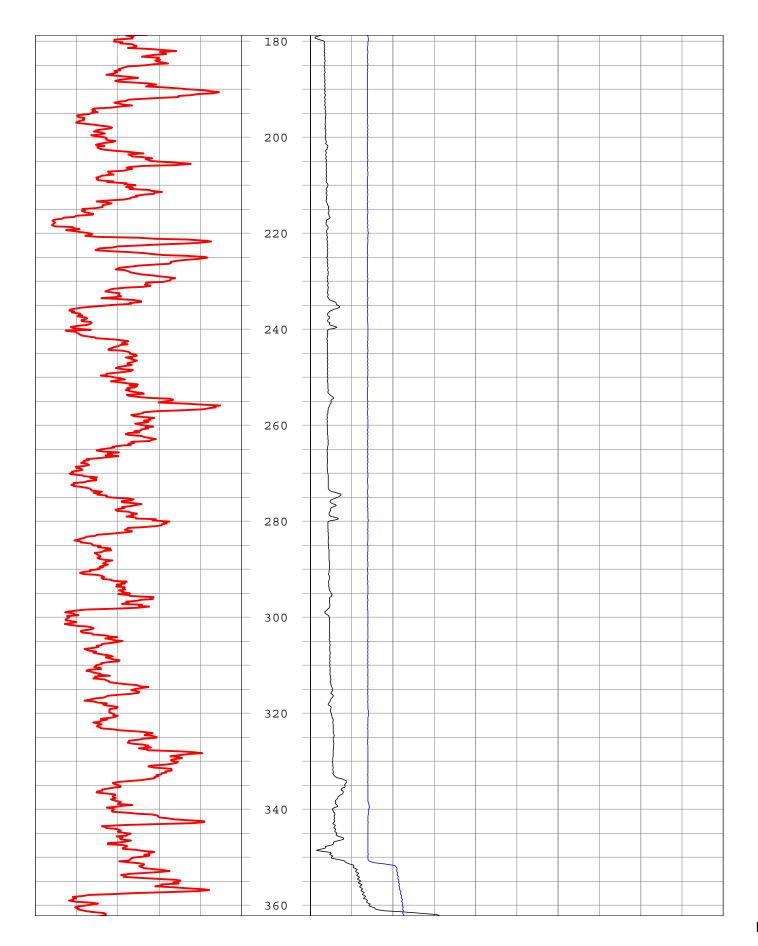
Logged By: R. Fieseler Witness: None

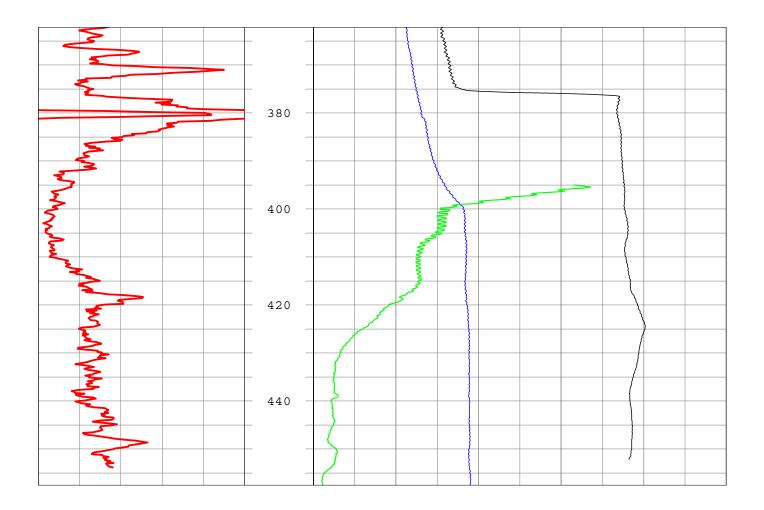
Log Type	Run #	Up / Down	From	То	Feet / Min.
GR RES	1	UP	458	0	15
	2				15
	3				
	4				

Comments:

	Gamma		Depth	1	SP	
0	cps	100	1ft:240ft	0	mV Current	1000
				-5	mA SPR	20









Blanco-Pedernales Groundwater Conservation District

Borehole Name or #: Legacy Hills Subdivision New Well #9

Logs: GR RES

Logging Dates: 12/17/2020



601 West Main, P. O. Box 1516, Johnson City, TX 78636 - - - (830) 868-9196 - - - manager@blancocountygroundwater.org

Well Owner: Lone Star Land Partners Well Regist. #: 20200187

Latitude: 30* 12' 13.2" Longitude: 98* 15' 46.0" Blanco County, Texas

Elevation MSL: Topo: 1339 GPS: Google Earth: GPS Datum: NAD 27

Borehole Data

Drilling Contractor: Apex Drilling Date Drilled: 12/14/2020

Measuring Point: 2.0 Feet Above Ground Level Driller TD: 445

Depth Reference: Ground Level Logger TD: 435

Water Level: 352.8 Feet Below Measuring Point

	Bit	Record		Casing Record				
Run	Bit Size	From	То	PVC / Steel	Size	From	То	
1	8.5	0	50	PVC	4.5	+2	445	
2	6.5	50	445					
3								

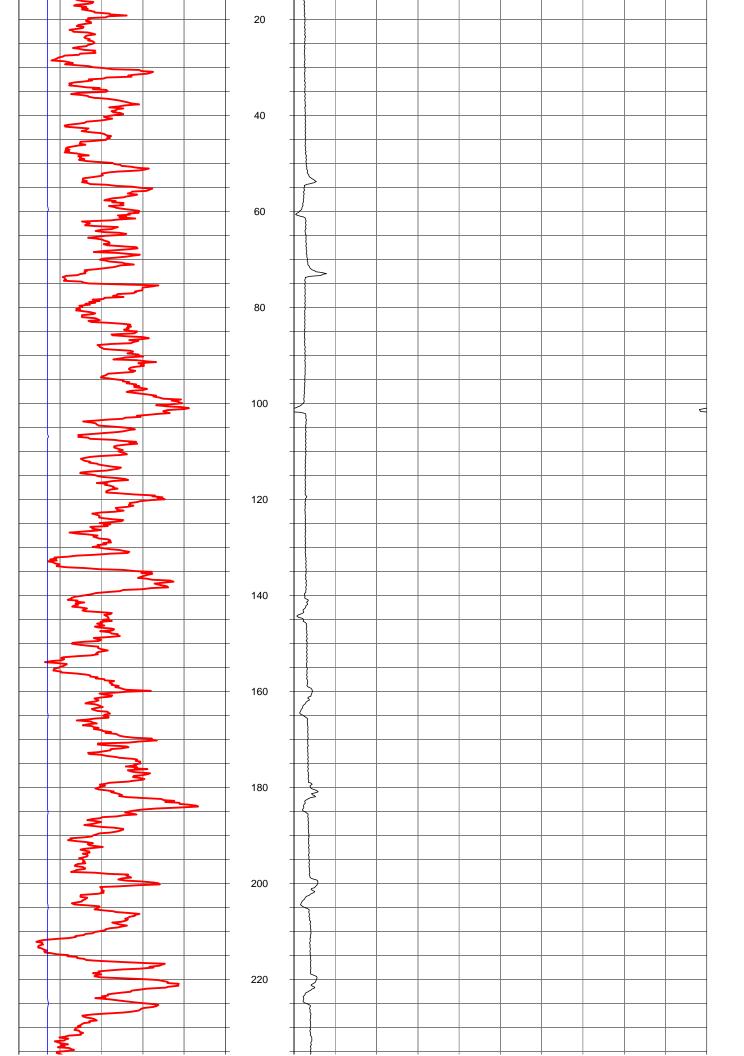
Logging Data

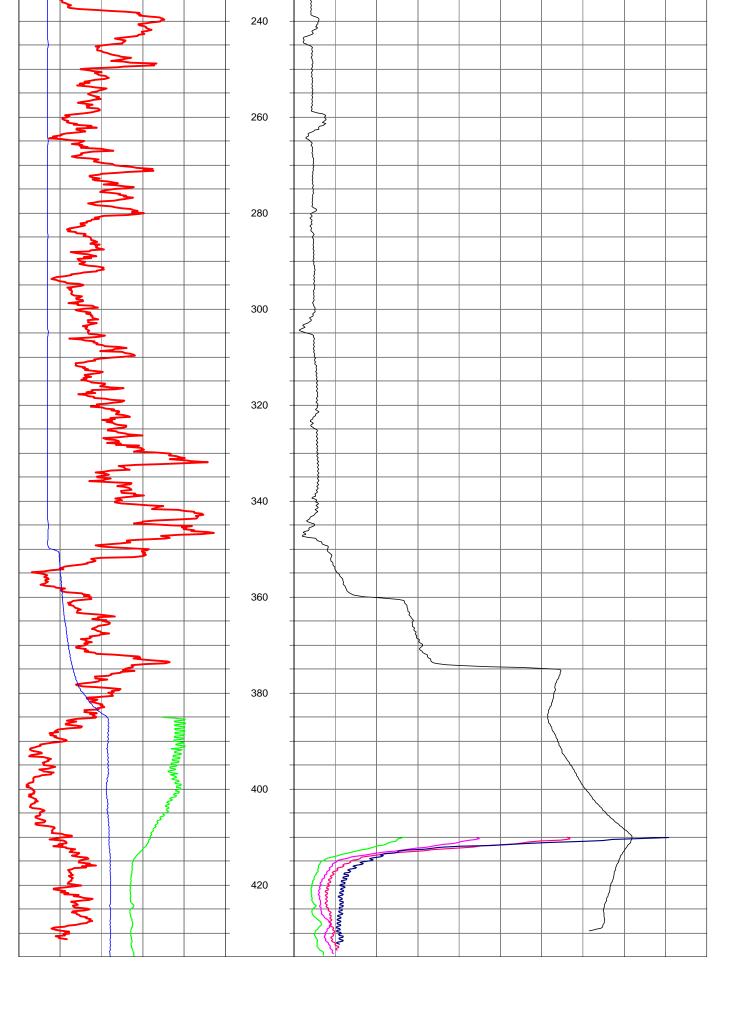
Logged By: R. Fieseler Witness: Nione

Log Type	Run #	Up / Down	From	То	Feet / Min.
GR RES	1	UP	435	0	15
	2				15
	3				
	4				

Comments:

	Gamma Depth			h SP							
0	cps Current	100	1ft:240ft	0					nV 88		1000
-5	mA SPR	20		0 Ohm-m R16				1000			
-500	Ohm	500		0 Ohm-m R32					1000		
				0 Ohm-m R64				1000			
				0				Oh	m-m		1000
	2		. 0	}							V
	7			}							4





Ex. Well No. 1



Blanco-Pedernales Groundwater Conservation District

Borehole Name or #: Legacy Hills Subdivision Existing Well #1

Logs: GR/RES

Logging Dates: 12/10/2020



601 West Main, P. O. Box 1516, Johnson City, TX 78636 - - - (830) 868-9196 - - - manager@blancocountygroundwater.org

Well Owner: Lone Star Land Partners Well Regist. #:

Latitude: 30* 12' 33.0" Longitude: 098* 15' 20.1" Blanco County, Texas

Elevation MSL: Topo: 1308 GPS: Google Earth: GPS Datum: NAD 27

Borehole Data

Drilling Contractor: Date Drilled:

Measuring Point: 1.6 Feet Above Ground Level Driller TD:

Depth Reference: Ground Level Logger TD: 419

Water Level: 329.2 Feet Below Measuring Point

	Bit	Record		Casing Record				
Run	Bit Size	From	То	PVC / Steel	Size	From	То	
1		0		PVC	4.5	+1.6	419	
2								
3								

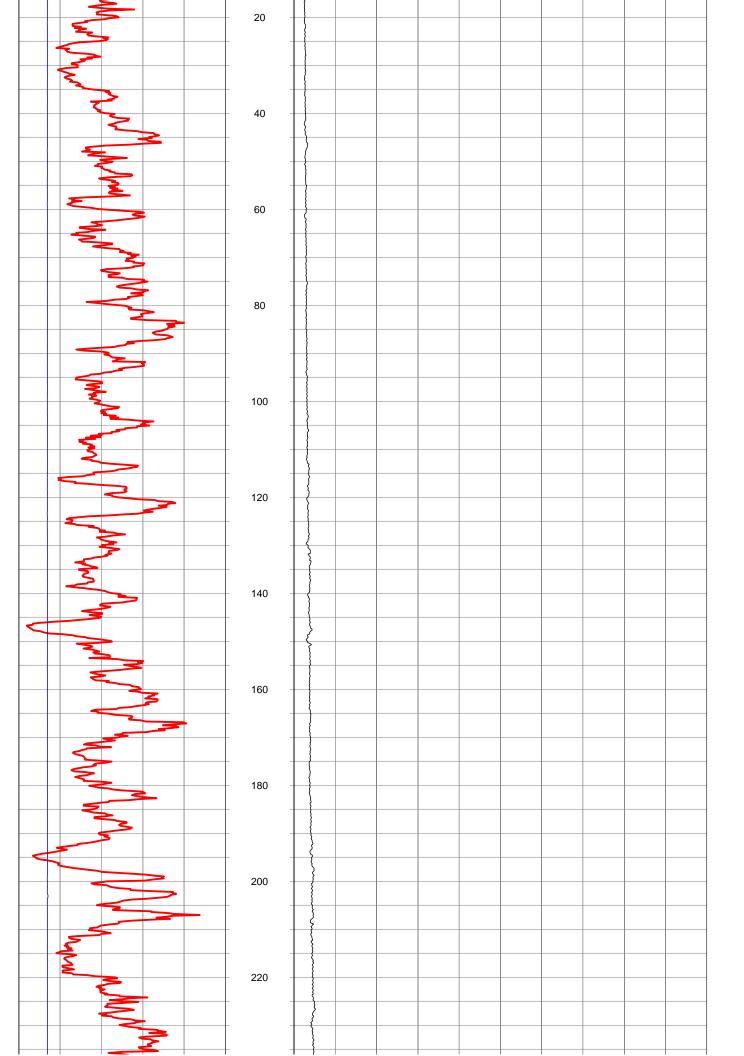
Logging Data

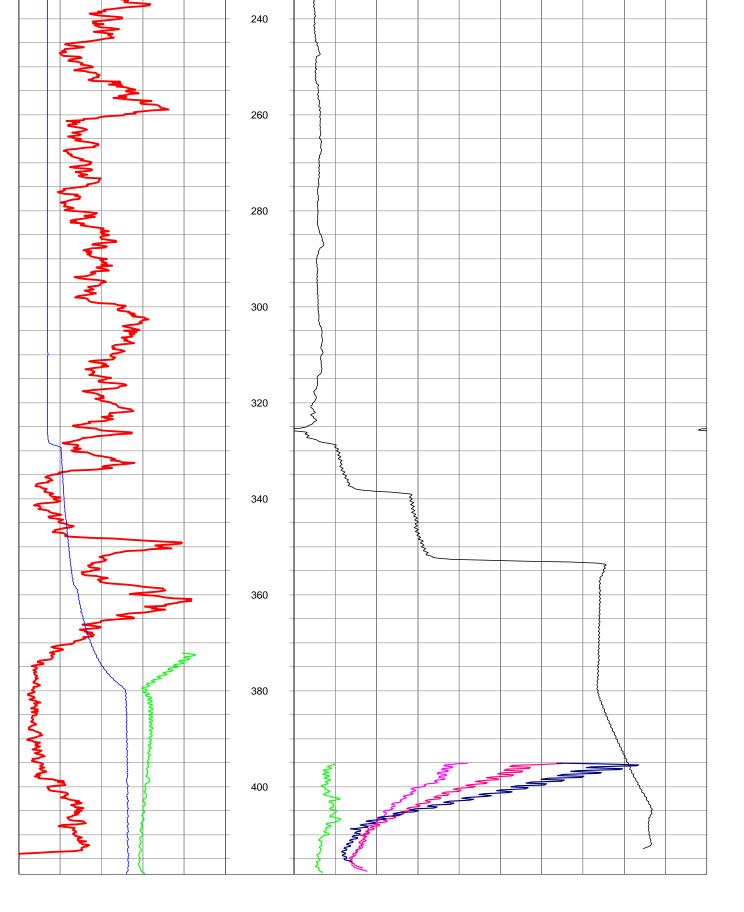
Logged By: R. Fieseler Witness: None

Log Type	Run #	Up / Down	From	То	Feet / Min.
GR RES	1	UP	419	0	15
	2				15
	3				
	4				

Comments:

	Gamma Depth			SP								
0	cps Current	100	1ft:240ft	0 mV R8					1000			
-5	mA SPR	20		0 Ohm-m R16					1000			
-500	Ohm	500		0 Ohm-m R32					1000			
				0 Ohm-m R64					1000			
				0				Oh	m-m			1000
	3		0	1								
}	*		-									
	2		-									





Appendix C

State Well Reports



Well Report



STATE OF TEXAS WELL REPORT for Tracking #561449

Owner: Bohls Interest LTD. Owner Well #: 1

Address: 3303 Northand Dr. Suite # 212 Grid #: 57-54-3

Austin, TX 78731

Well Location: **Legacy**

1

Johnson City, TX 78636

Latitude:

30° 12' 49" N

Longitude: 098

098° 16' 05" W

Elevation:

No Data

Well County: Blanco

Number of Wells Drilled: 9

Type of Work: New Well

Proposed Use:

Domestic

Drilling Start Date: 12/2/2020 Drilling End Date: 12/2/2020

Borehole:

Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
8.5	0	50
6.5	50	425

Drilling Method: Air Rotary

Borehole Completion: Straight Wall

Annular Seal Data: No Data

Seal Method: Slurry Distance to Property Line (ft.): 50

Sealed By: **Driller** 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 235 ft. Burlap/Neoprene at 240 ft.

Type of Pump: No Data

Well Tests: Jetted Yield: 60 GPM

Water Quality: Strata Depth (ft.) Water Type

Water Quality: 240 - 380 M. Trinity TDS 1400

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 # 20200179**

Lithology: DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	Top Soil
1	18	Tan LS Broken w/ Sandy Loam
18	32	Tan LS
32	125	Gray LS
125	140	Tan Gray LS
140	175	Gray LS
175	232	Gray Tan LS
232	240	Light Tan LS
240	327	Tan Gray LS
327	335	White LS
335	347	Tan LS
347	365	Broken Gray Tan LS
365	380	Broken Gray Tan Brown LS w/ Stripes of Turquoise Clay
380	400	Gray Tan LS
400	425	Gray LS

Casing: BLANK PIPE & WELL SCREEN DATA

Dla (in.)	Туре	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	2	315
4.5	Screen	New Plastic (PVC)	.035	315	375

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



STATE OF TEXAS WELL REPORT for Tracking #561450

Owner: Bohls Interest LTD. Owner Well #: 2

Address: 3303 Northland Dr Suite # 212 Grid #: 57-54-3

Austin, TX 78731

Well Location: Legacy # 2

Johnson City, TX 78636 Longitude: 098° 16' 05" W

Latitude:

30° 12' 44" N

Well County: Blanco Elevation: No Data

Number of Wells Drilled: 9

Type of Work: New Well Proposed Use: Domestic

Drilling Start Date: 12/3/2020 Drilling End Date: 12/3/2020

Diameter (in.) Top Depth (ft.) Bottom Depth (ft.)

Borehole: 8.5 0 50 6.5 50 425

Drilling Method: Air Rotary

Borehole Completion: Straight Wall

Top Depth (ft.) Bottom Depth (ft.) Description (number of sacks & material)

Applyion Seed Date:

Annular Seal Data: 0 50 3 Benseal 3 Portland 6 Bags/Sacks

Seal Method: **Slurry** Distance to Property Line (ft.): **50**

Sealed By: **Driller**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 300 ft. Burlap/Neoprene at 300 ft. Burlap/Neoprene at 325 ft.

Type of Pump: No Data

Well Tests: Jetted Yield: 60 GPM

Water Quality: Strata Depth (ft.) Water Type

Water Quality: M. Trinity - TDS 1400

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 # 20200180**

Lithology: DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	Top SOil
1	23	Broken Tan LS
23	85	Gray LS
85	295	Gray Tan LS
295	310	Gray LS
310	315	White LS
315	325	Tan Gray LS
325	340	Brown LS
340	352	Brown Tan LS
352	365	Brown Tan Gray LS
365	387	Tan LS
387	400	Broken Tan Gray LS
400	424	Gray LS
424	425	Gray Clay

Casing: BLANK PIPE & WELL SCREEN DATA

Dla (in.)	Туре	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	2	365
4.5	Screen	New Plastic (PVC)	.035	365	425

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

Well Report



STATE OF TEXAS WELL REPORT for Tracking #561451

Owner: Bohls Interest LTD. Owner Well #: 3

Address: 3303 Northand Dr. Suite # 212 Grid #: 57-54-3

Austin, TX 78731

Well Location: Legacy # 3

Johnson City, TX 78636

Latitude:

30° 12' 41" N

Longitude: 0

098° 15' 59" W

Well County: Blanco

Elevation:

No Data

Number of Wells Drilled: 9

Type of Work: New Well

Proposed Use: **Domestic**

Drilling Start Date: 12/4/2020 Drilling End Date: 12/4/2020

Borehole:

Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
8.5	0	50
6.5	50	420

Drilling Method: Air Rotary

Borehole Completion: Straight Wall

Annular Seal Data:

Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
0	50	3 Benseal 3 Portland 6 Bags/Sacks

Seal Method: **Slurry** Distance to Property Line (ft.): **50**

Sealed By: **Driller** 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 35 ft. Burlap/Neoprene at 315 ft. Burlap/Neoprene at 320 ft.

Type of Pump: No Data

Well Tests: Jetted Yield: 60 GPM

Water Quality: Strata Depth (ft.) Water Type

Water Quality: 320 - 418 M. Trinity - TDS 1500

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 # 20200181**

Lithology: DESCRIPTION & COLOR OF FORMATION MATERIAL

Bottom (ft.) Top (ft.) Description 0 1 Top Soil 1 19 Tan LS 19 75 **Gray LS 75** 250 **Gray Tan LS** 250 270 **Gray Tan Brown LS** 270 308 **Gray Tan LS** 308 320 Blue Tan LS 320 338 **Light Tan LS** 338 380 **Broken Gray Tan LS** 380 410 **Brown LS** 410 418 **Gray LS** 418 420 **Gray Clay**

Casing: BLANK PIPE & WELL SCREEN DATA

Dla (in.)	Туре	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	2	360
4.5	Screen	New Plastic (PVC)	.035	360	420

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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



STATE OF TEXAS WELL REPORT for Tracking #561452

Owner: Bohls Interest LTD. Owner Well #: 4

Address: 3303 Northand Dr. Suite # 212 Grid #: 57-54-6

Austin, TX 78731

Well Location: Legacy # 4

Johnson City, TX 78636

Latitude: 30° 12' 29" N

Longitude: 098° 15' 39" W

Well County: Blanco Elevation: No Data

Number of Wells Drilled: 9

Type of Work: New Well Proposed Use: Domestic

Drilling Start Date: 12/7/2020 Drilling End Date: 12/7/2020

Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
8.5	0	50
6.5	50	420

Drilling Method: Air Rotary

Borehole:

Borehole Completion: Straight Wall

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	50	3 Benseal 3 Portland 6 Bags/Sacks

Seal Method: **Slurry** Distance to Property Line (ft.): **50**

Sealed By: Driller 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 320 ft. Burlap/Neoprene at 320 ft. Burlap/Neoprene at 325 ft.

Type of Pump: No Data

Well Tests: Jetted Yield: 35 GPM

Water Quality: Strata Depth (ft.) Water Type

M. Trinity TDS 1500

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 # 20200182**

Lithology: DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	Top Soil
1	13	Tan LS
13	70	Gray LS
70	285	Gray Tan LS
285	290	Tan LS w Blue LS
290	325	Gray LS
325	340	Light Tan LS
340	360	Gray Tan Brown LS
360	398	Brown Gray Tan LS
398	408	Brown LS
408	420	Gray LS

Casing: BLANK PIPE & WELL SCREEN DATA

Dla (in.)	Туре	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	0	360
4.5	Screen	New Plastic (PVC)	.035	360	420

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

Well Report



STATE OF TEXAS WELL REPORT for Tracking #561453

Owner: Bohls Interest LDT. Owner Well #: 5

Address: 3303 Northand Dr. Suite # 212 Grid #: 57-54-6

Austin, TX 78731

Well Location: Legacy # 5

Johnson City, TX 78636

Latitude: 30° 12' 27" N

Longitude: 098° 15' 34" W

Well County: Blanco Elevation: No Data

Number of Wells Drilled: 9

Type of Work: New Well Proposed Use: Domestic

Drilling Start Date: 12/7/2020 Drilling End Date: 12/7/2020

Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
8.5	0	50
6.5	50	425

Drilling Method: Air Rotary

Borehole:

Borehole Completion: Straight Wall

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	50	3 Benseal 3 Portland 6 Bags/Sacks

Seal Method: Slurry Distance to Property Line (ft.): 50

Sealed By: Driller 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 320 ft. Burlap/Neoprene at 320 ft. Burlap/Neoprene at 325 ft.

Type of Pump: No Data

Well Tests: Jetted Yield: Lost Retur GPM

Water Quality:

Strata Depth (ft.)

Water Type

M. Trinity

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 # 20200183**

Lithology: DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.) Bottom (ft.) Description 0 1 Top SOil 1 16 Tan LS 16 25 **Gray LS** Tan LS 25 30 30 160 **Gray LS** 160 305 **Gray Tan LS** 305 320 Soft 320 330 Choppy 330 340 Soft 340 360 Soft 425 360 Choppy

Casing: BLANK PIPE & WELL SCREEN DATA

Dla (in.)	Туре	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	2	365
4.5	Screen	New Plastic (PVC)	.035	365	425

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

Well Report



STATE OF TEXAS WELL REPORT for Tracking #561726

Owner: Bohls Interest LTD. Owner Well #: 6

Address: 3303 Northand Dr. Suite # 212 Grid #: 57-54-6

Austin, TX 78731

Well Location: Legacy # 6

Johnson City, TX 78636

Latitude: 30° 12' 29" N

Longitude: 098° 15' 27" W

Well County: Blanco Elevation: No Data

Number of Wells Drilled: 9

Type of Work: New Well Proposed Use: Domestic

Drilling Start Date: 12/9/2020 Drilling End Date: 12/9/2020

Diameter (in.) Top Depth (ft.) Bottom Depth (ft.)

Borehole: 8.5 0 50

8.5 0 50 6.5 50 425

Drilling Method: Air Rotary

Borehole Completion: Straight Wall

Annular Seal Data:

Top Depth (ft.)

Bottom Depth (ft.)

Description (number of sacks & material)

3 Benseal 3 Portland 6 Bags/Sacks

Seal Method: **Slurry** Distance to Property Line (ft.): **50**

Sealed By: **Driller** 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 35 ft. Burlap/Neoprene at 335 ft. Burlap/Neoprene at 340 ft.

Type of Pump: No Data

Well Tests: Jetted Yield: 50 GPM

Water Quality: Strata Depth (ft.) Water Type

M. Trinity - TDS 1500

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 # 20200184**

Lithology: DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	Top Soil
1	20	Tan LS
20	50	Gray LS
50	147	Gray Tan LS
147	152	Gray LS w/ Calcite
152	200	Gray Tan LS
200	265	Tan LS
265	320	Gray Tan LS
320	340	Gray LS
340	355	Light Tan LS
355	404	Gray Tan LS
404	420	Brown LS
420	425	Gray LS

Casing: BLANK PIPE & WELL SCREEN DATA

Dla (in.)	Туре	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	2	365
4.5	Screen	New Plastic (PVC)	.035	365	425

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

Well Report



STATE OF TEXAS WELL REPORT for Tracking #561735

Owner Well #: Owner: **Bohls Interest LTD.**

Address: 3303 Northland Dr. Suite #212 Grid #: 57-54-3

Austin, TX 78731

Well Location: Legacy #7

Johnson City, TX 78636

Latitude:

Longitude:

30° 12' 51" N

098° 15' 08" W

Well County: **Blanco** Elevation: No Data

Number of Wells Drilled: 9

Type of Work: New Well Proposed Use: **Domestic**

Drilling Start Date: 12/10/2020 Drilling End Date: 12/10/2020

Diameter (in.) Top Depth (ft.) Bottom Depth (ft.) 0 50 8.5 6.5 50 455

Drilling Method: Air Rotary

Borehole:

Straight Wall Borehole Completion:

Top Depth (ft.) Bottom Depth (ft.) Description (number of sacks & material) Annular Seal Data: 0 **50** 3 Benseal 3 Portland 6 Bags/Sacks

Seal Method: Slurry Distance to Property Line (ft.): 50

Sealed By: Driller Distance to Septic Field or other

concentrated contamination (ft.): 100

Distance to Septic Tank (ft.): 50

Method of Verification: Land Owner

Surface Sleeve Installed Surface Completion: Surface Completion by Driller

Water Level: No Data

Packers: Burlap/Neoprene at 50 ft.

> Burlap/Neoprene at 55 ft. Burlap/Neoprene at 360 ft. Burlap/Neoprene at 365 ft.

Type of Pump: No Data

Well Tests: **Jetted** Yield: 42 GPM Water Quality:

Strata Depth (ft.)

Water Type

M. Trinity - TDS 1500

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 # 20200185**

Lithology: DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.) Bottom (ft.) Description 0 1 **Top Soil** 1 16 Caliche 16 105 **Gray LS** 105 330 **Gray Tan LS** 330 350 **Gray LS** 350 365 Tan LS 390 **Gray Tan LS** 365 390 419 **Gray Tan** 419 445 **Brown LS** 445 454 **Gray LS** 454 455 **Gray Clay**

Casing: BLANK PIPE & WELL SCREEN DATA

Dla (in.)	Туре	Material	erial Sch./Gage		Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	2	395
4.5	Screen	New Plastic (PVC)	.035	395	455

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

Well Report



STATE OF TEXAS WELL REPORT for Tracking #561736

Owner Well #: Owner: **Bohls Interest LTD.**

Address: 3303 Northland Dr. Suite # 212 Grid #: 57-54-3

Austin, TX 78731

Well Location: Legacy #8

> Johnson City, TX 78636 Longitude: 098° 15' 06" W

Latitude:

Well County: **Blanco** Elevation: No Data

Number of Wells Drilled: 9

Type of Work: New Well Proposed Use: **Domestic**

Drilling Start Date: 12/11/2020 Drilling End Date: 12/11/2020

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

6.5 **Drilling Method: Air Rotary**

Straight Wall Borehole Completion:

Top Depth (ft.) Bottom Depth (ft.) Description (number of sacks & material) Annular Seal Data: 0 **50** 3 Benseal 3 Portland 6 Bags/Sacks

50

Seal Method: Slurry Distance to Property Line (ft.): 50

Sealed By: Driller Distance to Septic Field or other concentrated contamination (ft.): 100

Distance to Septic Tank (ft.): 50

Method of Verification: Land Owner

30° 12' 56" N

460

Surface Sleeve Installed Surface Completion: Surface Completion by Driller

Water Level: No Data

Packers: Burlap/Neoprene at 50 ft.

> Burlap/Neoprene at 55 ft. Burlap/Neoprene at 350 ft. Burlap/Neoprene at 360 ft.

Type of Pump: No Data

Well Tests: **Jetted** Yield: 50 GPM Water Quality:

360 - 457	M. Trinity - TDS 1500
Strata Depth (ft.)	Water Type

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 # 20200186**

Lithology: DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	Top Soil
1	10	Tan LS
10	25	Gray LS
25	173	Gray Tan LS
173	175	Gray LS
175	197	Gray LS w/ Clay
197	210	Tan LS
210	240	Tan LS w/ Clay
240	295	Gray Tan LS
295	310	Gray LS
310	330	Gray Tan LS
330	360	Gray LS w/ Clay
360	385	Tan Gray LS (Soft)
385	419	Gray Tan LS (Hard)
419	442	Brown LS (Broken)
442	457	Gray LS
457	460	Gray Clay

Casing: BLANK PIPE & WELL SCREEN DATA

Dla (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)	
4.5	Blank	New Plastic (PVC)	SDR17	2	400	
4.5	Screen	New Plastic (PVC)	.035	400	460	

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

Well Report



STATE OF TEXAS WELL REPORT for Tracking #561739

Owner Well #: Owner: **Bohls Interest LTD.**

Address: 3303 Northland Dr. Suite # 121 Grid #: 57-54-6

Austin, TX 78731

Well Location: Legacy #9

Johnson City, TX 78636

Latitude: 30° 12' 14" N

Longitude: 098° 15' 47" W

Well County: **Blanco** Elevation: No Data

Number of Wells Drilled: 9

Type of Work: New Well Proposed Use: **Domestic**

Drilling Start Date: 12/14/2020 Drilling End Date: 12/14/2020

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

6.5 50 445

Drilling Method: Air Rotary

Straight Wall Borehole Completion:

Top Depth (ft.) Bottom Depth (ft.) Description (number of sacks & material) Annular Seal Data: 0 **50** 3 Benseal 3 Portland 6 Bags/Sacks

Seal Method: Slurry Distance to Property Line (ft.): 50

Sealed By: Driller Distance to Septic Field or other

concentrated contamination (ft.): 100

Distance to Septic Tank (ft.): 50

Method of Verification: Land Owner

Surface Sleeve Installed Surface Completion: Surface Completion by Driller

Water Level: No Data

Packers: Burlap/Neoprene at 50 ft.

> Burlap/Neoprene at 55 ft. Burlap/Neoprene at 355 ft. Burlap/Neoprene at 360 ft.

Type of Pump: No Data

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

Strata Depth (ft.)

Water Type

M. Trinity - TDS 1500

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 # 20200187**

Lithology: DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	Top SOil
1	10	Caliche
10	25	Gray LS
25	185	Gray Tan LS
185	195	Gray LS
195	300	Gray Tan LS
300	330	Gray LS
330	363	Gray Tan LS
363	383	Gray Tan LS (Hard)
383	420	Gray Tan LS (Choppy)
420	440	Brown LS
440	445	Gray LS

Casing: BLANK PIPE & WELL SCREEN DATA

Dla (in.)	Туре	Material	Sch./Gage	Top (ft.)	Bottom (ft.)	
4.5	Blank	New Plastic (PVC)	SDR17	2	385	
4.5	Screen	New Plastic (PVC)	.035	385	445	

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

Appendix C

Aquifer Test Data and Analysis



Aquifer Test



Legacy Hills Well No. 1 - Aquifer Test (December 15, 2020)

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)
12/15/20 9:58 AM	0		70.47	318.54	994.46	0.00			Pump Start	1,000.01	0.00
12/15/20 9:59 AM	1		70.90	318.74	994.26	0.21			Meter: 549,994 gallons	1,000.01	0.00
12/15/20 10:00 AM	2		71.23	318.85	994.15	0.31	11.9	38.39		1,000.02	0.00
12/15/20 10:01 AM	3		71.57	318.82	994.18	0.28				999.97	0.04
12/15/20 10:02 AM	4		71.76	318.90	994.10	0.36				999.90	0.12
12/15/20 10:03 AM	5		71.89	318.91	994.09	0.37				999.96	0.06
12/15/20 10:04 AM	6		72.05	318.94	994.06	0.41				999.94	0.07
12/15/20 10:05 AM	7		72.12	318.85	994.15	0.31				1,000.00	0.01
12/15/20 10:06 AM	8		72.23	318.89	994.11	0.36				999.94	0.07
12/15/20 10:07 AM	9		72.34	318.84	994.16	0.30				999.99	0.02
12/15/20 10:08 AM	10		72.40	319.00	994.00	0.46				1,000.07	-0.06
12/15/20 10:09 AM	11		72.46	318.90	994.10	0.36				999.99	0.02
12/15/20 10:10 AM	12		72.52	318.88	994.12	0.34				999.96	0.05
12/15/20 10:11 AM	13		72.52	318.98	994.02	0.44				999.90	0.11
12/15/20 10:12 AM	14		72.60	318.97	994.03	0.43				1,000.01	0.00
12/15/20 10:13 AM	15		72.63	318.97	994.03	0.44	11.9	27.29		999.96	0.05
12/15/20 10:18 AM	20		72.75	318.96	994.05	0.42				999.90	0.11
12/15/20 10:23 AM	25		72.89	318.91	994.09	0.37				999.94	0.08
12/15/20 10:28 AM	30		72.96	318.99	994.01	0.45				999.83	0.18
12/15/20 10:43 AM	45		73.08	318.99	994.01	0.45				999.87	0.14
12/15/20 10:58 AM	60		73.19	318.97	994.03	0.44	11.9	27.23	pH: 6.87/ EC: 2.65	999.76	0.25
12/15/20 11:13 AM	75		73.22	319.10	993.90	0.56				999.80	0.21
12/15/20 11:28 AM	90		73.23	318.97	994.03	0.43	11.9	27.61	pH: 7.02/ EC: 2.67	999.88	0.13
12/15/20 11:43 AM	105		73.27	319.05	993.95	0.51				999.75	0.26
12/15/20 11:58 AM	120		73.28	318.96	994.04	0.42				999.80	0.21
12/15/20 12:28 PM	150		73.30	319.09	993.91	0.55				999.72	0.29
12/15/20 12:58 PM	180		73.30	319.07	993.93	0.53				999.73	0.28
12/15/20 1:28 PM	210		73.31	319.13	993.87	0.60				999.73	0.28
12/15/20 1:58 PM	240		73.40	319.20	993.80	0.66				999.71	0.30
12/15/20 2:58 PM	300		73.41	319.16	993.84	0.63				999.71	0.30
12/15/20 3:58 PM	360		73.36	319.13	993.87	0.60				999.72	0.29
12/15/20 4:58 PM	420		73.35	319.18	993.82	0.64				999.68	0.33
12/15/20 5:58 PM	480		73.36	319.19	993.81	0.65				999.73	0.28
12/15/20 6:58 PM	540		73.41	319.11	993.89	0.57				999.61	0.40
12/15/20 7:58 PM	600		73.39	319.12	993.88	0.58				999.61	0.40

MSL = Mean Sea Level

Note: bgs = below ground surface Column Pipe Diameter = 1 1/4 inches

Horsepower = 1.5 HP

Pump Setting = 360 ft EC=Electrical conductivity (mS/cm)

Legacy Hills Well No. 1 - Aquifer Test (December 15, 2020)

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)
12/15/20 8:58 PM	660		73.36	319.29	993.71	0.75				999.65	0.37
12/15/20 9:58 PM	720		73.36	319.24	993.76	0.70				999.62	0.39
12/15/20 10:58 PM	780		73.37	319.29	993.71	0.75				999.51	0.51
12/15/20 11:58 PM	840		73.41	319.27	993.74	0.73				999.52	0.49
12/16/20 12:58 AM	900		73.38	319.47	993.53	0.93				999.53	0.48
12/16/20 1:58 AM	960		73.40	319.36	993.64	0.82				999.40	0.61
12/16/20 2:58 AM	1,020		73.36	319.42	993.58	0.88				999.46	0.55
12/16/20 3:58 AM	1,080		73.35	319.44	993.56	0.90				999.42	0.59
12/16/20 4:58 AM	1,140		73.35	319.33	993.68	0.79				999.39	0.62
12/16/20 5:58 AM	1,200		73.38	319.44	993.56	0.90				999.51	0.50
12/16/20 6:58 AM	1,260		73.43	319.38	993.62	0.84				999.54	0.48
12/16/20 7:58 AM	1,320		73.35	319.33	993.67	0.79				999.46	0.56
12/16/20 8:58 AM	1,380		73.36	319.33	993.67	0.79				999.53	0.48
12/16/20 9:58 AM	1,440		73.41	319.35	993.66	0.81				999.44	0.57
12/16/20 10:46 AM	1,488	0	73.34	319.39	993.61	0.85	11.9	13.93	Pump Stop	999.46	0.55
12/16/20 10:47 AM	1,489	1	73.42	319.10	993.91	0.56			Meter: 567,507 gallons	999.45	0.57
12/16/20 10:48 AM	1,490	2	73.39	319.00	994.00	0.46			Avg. Pump Rate: 12 gpm	999.46	0.56
12/16/20 10:49 AM	1,491	3	73.39	319.08	993.93	0.54				999.50	0.51
12/16/20 10:50 AM	1,492	4	73.40	319.08	993.92	0.55				999.47	0.54
12/16/20 10:51 AM	1,493	5	73.43	319.03	993.97	0.49				999.51	0.50
12/16/20 10:52 AM	1,494	6	73.50	319.03	993.97	0.49				999.51	0.50
12/16/20 10:53 AM	1,495	7	73.69	319.07	993.93	0.53				999.51	0.50
12/16/20 10:54 AM	1,496	8	73.81	319.06	993.94	0.53				999.50	0.51
12/16/20 10:55 AM	1,497	9	73.89	318.99	994.01	0.46				999.47	0.54
12/16/20 10:56 AM	1,498	10	74.06	319.01	993.99	0.47				999.49	0.52
12/16/20 10:57 AM	1,499	11	74.18	319.07	993.93	0.53				999.47	0.54
12/16/20 10:58 AM	1,500	12	74.34	318.96	994.04	0.42				999.54	0.47
12/16/20 10:59 AM	1,501	13	74.45	319.00	994.01	0.46				999.50	0.51
12/16/20 11:00 AM	1,502	14	74.60	318.99	994.01	0.45				999.55	0.46
12/16/20 11:01 AM	1,503	15	74.58	319.02	993.98	0.48				999.51	0.50
12/16/20 11:06 AM	1,508	20	74.75	319.05	993.95	0.52				999.47	0.54
12/16/20 11:11 AM	1,513	25	74.79	319.04	993.96	0.50				999.41	0.60
12/16/20 11:16 AM	1,518	30	74.71	318.97	994.03	0.43				999.51	0.50
12/16/20 11:31 AM	1,533	45	74.30	319.07	993.93	0.53				999.55	0.46
12/16/20 11:46 AM	1,548	60	74.08	318.85	994.15	0.32				999.51	0.50

MSL = Mean Sea Level

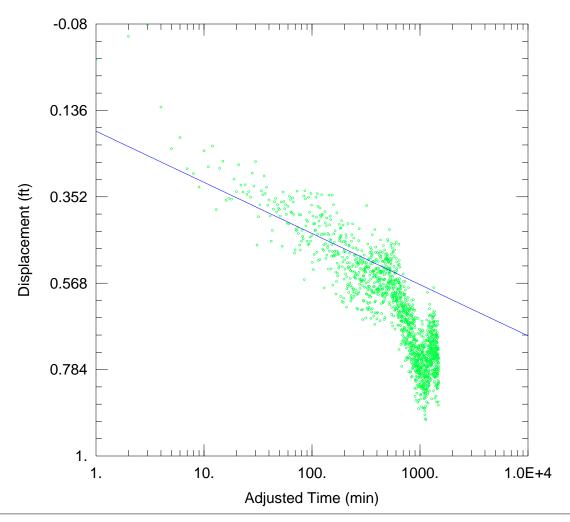
Note: bgs = below ground surface Column Pipe Diameter = 1 1/4 inches

Horsepower = 1.5 HP

Pump Setting = 360 ft EC=Electrical conductivity (mS/cm)

Legacy Hills Well No. 1 - Aquifer Test (December 15, 2020)

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)
12/16/20 12:01 PM	1,563	75	73.78	318.93	994.07	0.40				999.65	0.37
12/16/20 12:16 PM	1,578	90	73.68	319.07	993.93	0.53				999.45	0.56
12/16/20 12:31 PM	1,593	105	73.54	318.94	994.06	0.41				999.52	0.49
12/16/20 12:46 PM	1,608	120	73.41	318.95	994.05	0.41				999.56	0.46
12/16/20 1:16 PM	1,638	150	73.37	318.98	994.02	0.44				999.51	0.50
12/16/20 1:46 PM	1,668	180	73.25	318.90	994.10	0.37				999.52	0.49
12/16/20 2:16 PM	1,698	210	73.20	318.94	994.06	0.40				999.56	0.45
12/16/20 2:46 PM	1,728	240	73.17	318.91	994.09	0.37				999.61	0.40
12/16/20 3:46 PM	1,788	300	73.08	318.94	994.06	0.41				999.58	0.43
12/16/20 4:46 PM	1,848	360	73.12	318.88	994.12	0.34				999.61	0.40
12/16/20 5:46 PM	1,908	420	73.04	318.84	994.16	0.31				999.65	0.36
12/16/20 6:46 PM	1,968	480	73.04	318.95	994.05	0.41				999.64	0.37
12/16/20 7:46 PM	2,028	540	73.01	318.87	994.13	0.34				999.64	0.37
12/16/20 8:46 PM	2,088	600	73.01	318.88	994.12	0.34				999.70	0.31
12/16/20 9:46 PM	2,148	660	72.99	318.82	994.18	0.28				999.67	0.34
12/16/20 10:46 PM	2,208	720	73.03	318.87	994.13	0.34				999.68	0.34
12/16/20 11:46 PM	2,268	780	72.97	318.83	994.17	0.29				999.65	0.37
12/17/20 12:46 AM	2,328	840	72.93	318.83	994.17	0.29				999.70	0.31
12/17/20 1:46 AM	2,388	900	72.94	318.96	994.04	0.43				999.58	0.43
12/17/20 2:46 AM	2,448	960	72.99	318.83	994.17	0.29				999.68	0.34
12/17/20 3:46 AM	2,508	1020	72.92	318.87	994.13	0.34				999.71	0.30
12/17/20 4:46 AM	2,568	1080	72.94	318.83	994.17	0.29				999.73	0.28
12/17/20 5:46 AM	2,628	1140	72.97	318.72	994.28	0.18				999.65	0.37
12/17/20 6:46 AM	2,688	1200	72.90	318.64	994.36	0.11				999.77	0.24
12/17/20 7:46 AM	2,748	1260	72.94	318.76	994.24	0.22				999.78	0.23
12/17/20 8:46 AM	2,808	1320	72.90	318.76	994.25	0.22				999.84	0.17
12/17/20 9:04 AM	2,826	1338	72.93	318.70	994.30	0.16				999.78	0.23



WELL TEST ANALYSIS

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

Date: 01/15/21 Time: 13:39:44

PROJECT INFORMATION

Company: Wet Rock Groundwater Services

Client: Lonestar Land Partners
Location: Blanco County
Test Well: Well No. 1
Test Date: 12-15-20

AQUIFER DATA

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

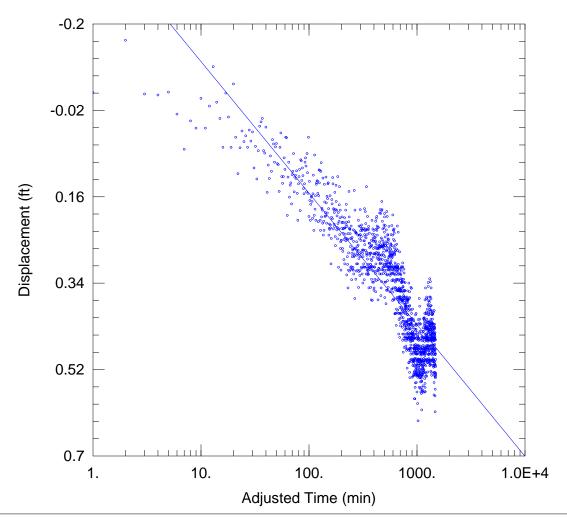
Well Name	X (ft)	Y (ft)
Well No. 1	0	0

SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

 $T = 3310.1 \text{ ft}^2/\text{day}$



WELL TEST ANALYSIS

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

Date: 01/15/21 Time: 13:36:45

PROJECT INFORMATION

Company: Wet Rock Groundwater Services

Client: Lonestar Land Partners
Location: Blanco County
Test Well: Well No. 1
Test Date: 12-15-20

AQUIFER DATA

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pu	mping Wells		Observation Wells				
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)		
Well No. 1	0	0	Well No. 2	580	0		

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

 $T = 1544.2 \text{ ft}^2/\text{day}$ S = 0.0001991

Aquifer Test



Legacy Hills Well No. 3 - Aquifer Test (December 17, 2020)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 3 Temperature (F)	PW Well No. 3 Water Level (ft bgs)	PW Well No. 3 Water Level (ft MSL)	PW Well No. 3 Drawdown (ft)	PW Well No. 3 Pump Rate (gpm)	PW Well No. 3 Specific Capacity (gpm/ft)	Comments	OW Well No. 2 Water Level (ft MSL)	OW Well No. 2 Drawdown (ft)
12/17/20 9:57 AM	0		72.90	321.65	991.35	0.00			Pump Start	1,004.81	0.00
12/17/20 9:58 AM	1		72.87	321.85	991.16	0.20			Meter: 567,507 gallons	1,004.88	-0.07
12/17/20 9:59 AM	2		72.89	321.97	991.04	0.31				1,004.88	-0.07
12/17/20 10:00 AM	3		72.95	321.92	991.08	0.27			pH: 7.95/ EC: 0.84	1,004.84	-0.02
12/17/20 10:01 AM	4		72.94	321.94	991.06	0.29				1,004.80	0.02
12/17/20 10:02 AM	5		72.97	322.04	990.96	0.39	14.2	36.69		1,004.81	0.01
12/17/20 10:03 AM	6		72.95	321.99	991.01	0.34				1,004.82	0.00
12/17/20 10:04 AM	7		72.97	321.98	991.03	0.33				1,004.79	0.02
12/17/20 10:05 AM	8		72.94	321.94	991.06	0.29				1,004.80	0.02
12/17/20 10:06 AM	9		72.97	321.98	991.02	0.33				1,004.75	0.06
12/17/20 10:07 AM	10		72.98	322.06	990.94	0.41				1,004.81	0.00
12/17/20 10:08 AM	11		73.00	322.02	990.98	0.37				1,004.77	0.05
12/17/20 10:09 AM	12		73.00	321.98	991.02	0.33				1,004.76	0.06
12/17/20 10:10 AM	13		73.05	322.07	990.93	0.42				1,004.73	0.08
12/17/20 10:11 AM	14		73.04	321.94	991.06	0.29				1,004.78	0.03
12/17/20 10:12 AM	15		73.01	322.03	990.98	0.38				1,004.78	0.03
12/17/20 10:17 AM	20		73.04	322.02	990.98	0.37	14.0	37.63	pH: 6.84/ EC: 2.82	1,004.74	0.08
12/17/20 10:22 AM	25		73.12	322.04	990.96	0.39			-	1,004.73	0.08
12/17/20 10:27 AM	30		73.09	322.10	990.90	0.45				1,004.69	0.12
12/17/20 10:42 AM	45		73.05	322.13	990.87	0.48				1,004.66	0.16
12/17/20 10:57 AM	60		73.10	322.16	990.84	0.51	14.0	27.29	pH: 6.98/ EC: 2.88	1,004.67	0.15
12/17/20 11:12 AM	75		73.09	322.15	990.85	0.50				1,004.60	0.22
12/17/20 11:27 AM	90		73.08	322.18	990.82	0.53				1,004.65	0.16
12/17/20 11:42 AM	105		73.12	322.15	990.85	0.50				1,004.64	0.18
12/17/20 11:57 AM	120		73.09	322.22	990.78	0.57	14.0	24.43	pH: 6.78/ EC: 2.88	1,004.53	0.29
12/17/20 12:27 PM	150		73.05	322.22	990.78	0.57				1,004.64	0.17
12/17/20 12:57 PM	180		73.05	322.22	990.78	0.57	14.0	24.65	pH: 6.88/ EC: 2.85	1,004.53	0.28
12/17/20 1:27 PM	210		73.05	322.31	990.69	0.66				1,004.52	0.30
12/17/20 1:57 PM	240		73.02	322.29	990.71	0.64				1,004.53	0.28
12/17/20 2:57 PM	300		73.05	322.34	990.66	0.69				1,004.47	0.34
12/17/20 3:57 PM	360		73.04	322.36	990.64	0.71				1,004.50	0.32
12/17/20 4:57 PM	420		73.02	322.32	990.68	0.67				1,004.45	0.36
12/17/20 5:57 PM	480		73.03	322.39	990.61	0.74				1,004.50	0.32
12/17/20 6:57 PM	540		73.08	322.33	990.67	0.68				1,004.35	0.47
12/17/20 7:57 PM	600		73.07	322.44	990.56	0.79				1,004.39	0.42

Note: bgs = below ground surface Column Pipe Diameter = 1 1/4 inches

MSL = Mean Sea Level Pump Setting = 380 ft EC=Electric

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 3 Temperature (F)	PW Well No. 3 Water Level (ft bgs)	PW Well No. 3 Water Level (ft MSL)	PW Well No. 3 Drawdown (ft)	PW Well No. 3 Pump Rate (gpm)	PW Well No. 3 Specific Capacity (gpm/ft)	Comments	OW Well No. 2 Water Level (ft MSL)	OW Well No. 2 Drawdown (ft)
12/17/20 8:57 PM	660		73.04	322.38	990.62	0.73				1,004.30	0.51
12/17/20 9:57 PM	720		73.06	322.43	990.57	0.78				1,004.37	0.45
12/17/20 10:57 PM	780		73.07	322.53	990.48	0.88				1,004.22	0.59
12/17/20 11:57 PM	840		73.05	322.60	990.40	0.95				1,004.39	0.43
12/18/20 12:57 AM	900		73.03	322.52	990.48	0.87				1,004.22	0.59
12/18/20 1:57 AM	960		73.04	322.59	990.42	0.94				1,004.15	0.67
12/18/20 2:57 AM	1,020		73.03	322.67	990.33	1.02				1,004.13	0.69
12/18/20 3:57 AM	1,080		73.08	322.67	990.33	1.02				1,004.12	0.69
12/18/20 4:57 AM	1,140		73.06	322.67	990.33	1.02				1,004.14	0.67
12/18/20 5:57 AM	1,200		73.05	322.67	990.33	1.02				1,004.13	0.69
12/18/20 6:57 AM	1,260		73.06	322.70	990.30	1.05				1,004.14	0.67
12/18/20 7:57 AM	1,320		73.01	322.57	990.44	0.92				1,004.20	0.62
12/18/20 8:57 AM	1,380		73.05	322.66	990.34	1.01				1,004.14	0.67
12/18/20 9:57 AM	1,440		73.06	322.60	990.40	0.95				1,004.18	0.64
12/18/20 10:57 AM	1,500		73.03	322.70	990.30	1.05				1,004.02	0.80
12/18/20 11:57 AM	1,560		73.02	322.78	990.22	1.13				1,004.04	0.78
12/18/20 12:01 PM	1,564	0	73.04	322.66	990.34	1.01	11.9	11.75	Pump Stop	1,004.07	0.74
12/18/20 12:02 PM	1,565	1	73.07	322.53	990.47	0.88			Meter: 589,417 gallons	1,003.99	0.82
12/18/20 12:03 PM	1,566	2	73.02	322.42	990.58	0.77			Avg. Pump Rate: 14 gpm	1,003.95	0.86
12/18/20 12:04 PM	1,567	3	73.07	322.42	990.58	0.77				1,003.94	0.87
12/18/20 12:05 PM	1,568	4	73.22	322.43	990.57	0.78				1,003.98	0.84
12/18/20 12:06 PM	1,569	5	73.40	322.52	990.48	0.87				1,004.04	0.78
12/18/20 12:07 PM	1,570	6	73.47	322.45	990.55	0.80				1,004.03	0.79
12/18/20 12:08 PM	1,571	7	73.57	322.47	990.53	0.82				1,004.08	0.73
12/18/20 12:09 PM	1,572	8	73.64	322.43	990.57	0.78				1,004.02	0.79
12/18/20 12:10 PM	1,573	9	73.69	322.45	990.55	0.80				1,004.02	0.80
12/18/20 12:11 PM	1,574	10	73.72	322.40	990.60	0.75				1,004.10	0.71
12/18/20 12:12 PM	1,575	11	73.67	322.43	990.57	0.78				1,004.13	0.69
12/18/20 12:13 PM	1,576	12	73.71	322.40	990.61	0.75				1,004.09	0.72
12/18/20 12:14 PM	1,577	13	73.70	322.39	990.61	0.74				1,004.16	0.65
12/18/20 12:15 PM	1,578	14	73.64	322.44	990.56	0.79				1,004.09	0.73
12/18/20 12:16 PM	1,579	15	73.66	322.41	990.60	0.75				1,004.07	0.74
12/18/20 12:21 PM	1,584	20	73.63	322.33	990.67	0.68				1,004.15	0.67
12/18/20 12:26 PM	1,589	25	73.58	322.30	990.70	0.65				1,004.18	0.64
12/18/20 12:31 PM	1,594	30	73.51	322.32	990.68	0.67				1,004.05	0.77

MSL = Mean Sea Level

Note: bgs = below ground surface Column Pipe Diameter = 1 1/4 inches

Horsepower = 1.5 HP

Pump Setting = 380 ft EC=Electrical conductivity (mS/cm)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 3 Temperature (F)	PW Well No. 3 Water Level (ft bgs)	PW Well No. 3 Water Level (ft MSL)	PW Well No. 3 Drawdown (ft)	PW Well No. 3 Pump Rate (gpm)	PW Well No. 3 Specific Capacity (gpm/ft)	Comments	OW Well No. 2 Water Level (ft MSL)	OW Well No. 2 Drawdown (ft)
12/18/20 12:46 PM	1,609	45	73.28	322.31	990.69	0.66				1,004.12	0.69
12/18/20 1:01 PM	1,624	60	73.19	322.27	990.73	0.62				1,004.12	0.69
12/18/20 1:16 PM	1,639	75	73.07	322.28	990.72	0.63				1,004.11	0.70
12/18/20 1:31 PM	1,654	90	73.09	322.34	990.66	0.69				1,004.20	0.61
12/18/20 1:46 PM	1,669	105	73.11	322.23	990.77	0.58				1,004.19	0.63
12/18/20 2:01 PM	1,684	120	73.06	322.33	990.67	0.68				1,004.12	0.70
12/18/20 2:31 PM	1,714	150	73.07	322.24	990.76	0.59				1,004.12	0.69
12/18/20 3:01 PM	1,744	180	72.97	322.36	990.64	0.71				1,004.26	0.56
12/18/20 3:31 PM	1,774	210	72.98	322.27	990.73	0.62				1,004.17	0.65
12/18/20 4:01 PM	1,804	240	72.98	322.23	990.77	0.58				1,004.27	0.54
12/18/20 5:01 PM	1,864	300	72.99	322.23	990.78	0.58				1,004.23	0.58
12/18/20 6:01 PM	1,924	360	72.93	322.11	990.89	0.46				1,004.28	0.53
12/18/20 7:01 PM	1,984	420	72.93	322.12	990.88	0.47				1,004.31	0.50
12/18/20 8:01 PM	2,044	480	72.97	322.15	990.85	0.50				1,004.35	0.47
12/18/20 9:01 PM	2,104	540	72.93	322.06	990.94	0.41				1,004.43	0.39
12/18/20 10:01 PM	2,164	600	72.95	322.15	990.86	0.50				1,004.39	0.42
12/18/20 11:01 PM	2,224	660	72.91	322.07	990.93	0.42				1,004.36	0.45
12/19/20 12:01 AM	2,284	720	72.93	322.12	990.88	0.47				1,004.40	0.42
12/19/20 1:01 AM	2,344	780	72.97	322.14	990.87	0.49				1,004.40	0.41
12/19/20 2:01 AM	2,404	840	72.93	322.09	990.91	0.44				1,004.39	0.42
12/19/20 3:01 AM	2,464	900	72.96	322.10	990.90	0.45				1,004.32	0.49
12/19/20 4:01 AM	2,524	960	72.95	322.16	990.84	0.51				1,004.37	0.44
12/19/20 5:01 AM	2,584	1020	72.92	322.10	990.90	0.45				1,004.41	0.40
12/19/20 6:01 AM	2,644	1080	72.91	322.03	990.97	0.38				1,004.42	0.39
12/19/20 7:01 AM	2,704	1140	72.95	322.01	990.99	0.36				1,004.45	0.37
12/19/20 8:01 AM	2,764	1200	72.93	322.03	990.97	0.38				1,004.55	0.26
12/19/20 9:01 AM	2,824	1260	72.91	322.00	991.00	0.35				1,004.58	0.24
12/19/20 10:01 AM	2,884	1320	72.92	321.90	991.10	0.25				1,004.53	0.29
12/19/20 11:01 AM	2,944	1380	72.95	321.92	991.08	0.27				1,004.64	0.17
12/19/20 12:01 PM	3,004	1440	72.90	321.81	991.19	0.16				1,004.65	0.16
12/19/20 1:01 PM	3,064	1500	72.99	321.95	991.05	0.30				1,004.64	0.18
12/19/20 2:01 PM	3,124	1560	72.96	321.87	991.13	0.22				1,004.60	0.21
12/19/20 3:01 PM	3,184	1620	72.94	321.86	991.14	0.21				1,004.67	0.14

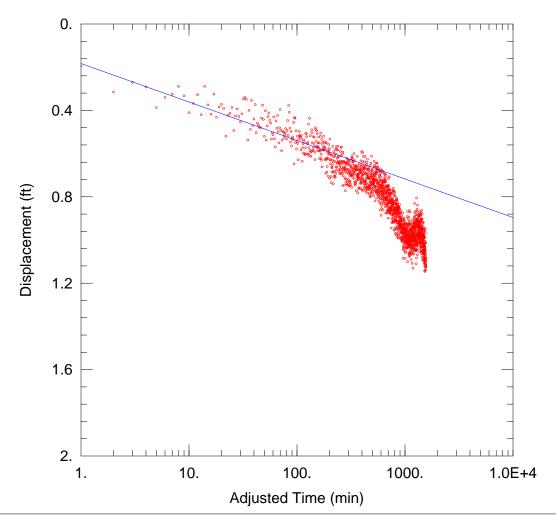
Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 3 Temperature (F)	PW Well No. 3 Water Level (ft bgs)	PW Well No. 3 Water Level (ft MSL)	PW Well No. 3 Drawdown (ft)	PW Well No. 3 Pump Rate (gpm)	PW Well No. 3 Specific Capacity (gpm/ft)	Comments	OW Well No. 2 Water Level (ft MSL)	OW Well No. 2 Drawdown (ft)
12/19/20 4:01 PM	3,244	1680	72.96	321.84	991.16	0.19				1,004.58	0.23
12/19/20 5:01 PM	3,304	1740	72.95	321.92	991.09	0.26				1,004.60	0.21
12/19/20 6:01 PM	3,364	1800	72.94	321.85	991.15	0.20				1,004.60	0.21
12/19/20 7:01 PM	3,424	1860	72.93	321.83	991.17	0.18				1,004.63	0.18
12/19/20 8:01 PM	3,484	1920	72.93	321.90	991.10	0.25				1,004.67	0.15
12/19/20 9:01 PM	3,544	1980	72.93	321.79	991.21	0.14				1,004.73	0.09
12/19/20 10:01 PM	3,604	2040	72.95	321.78	991.22	0.13				1,004.62	0.19
12/19/20 11:01 PM	3,664	2100	72.97	321.80	991.20	0.15				1,004.65	0.17
12/20/20 12:01 AM	3,724	2160	72.98	321.81	991.19	0.16				1,004.64	0.17
12/20/20 1:01 AM	3,784	2220	72.93	321.80	991.20	0.15				1,004.64	0.18
12/20/20 2:01 AM	3,844	2280	72.92	321.76	991.24	0.11				1,004.64	0.17
12/20/20 3:01 AM	3,904	2340	72.93	321.85	991.15	0.20				1,004.71	0.11
12/20/20 4:01 AM	3,964	2400	72.97	321.76	991.25	0.11				1,004.69	0.13
12/20/20 5:01 AM	4,024	2460	72.99	321.86	991.14	0.21				1,004.67	0.14
12/20/20 6:01 AM	4,084	2520	72.93	321.82	991.18	0.17				1,004.69	0.13
12/20/20 7:01 AM	4,144	2580	72.93	321.70	991.30	0.05				1,004.75	0.07
12/20/20 8:01 AM	4,204	2640	72.93	321.80	991.20	0.15				1,004.71	0.10
12/20/20 9:01 AM	4,264	2700	72.93	321.64	991.36	-0.01				1,004.70	0.11
12/20/20 10:01 AM	4,324	2760	72.97	321.78	991.22	0.13				1,004.80	0.01
12/20/20 11:01 AM	4,384	2820	72.95	321.73	991.28	0.08				1,004.76	0.06
12/20/20 12:01 PM	4,444	2880	72.96	321.78	991.22	0.13				1,004.71	0.10
12/20/20 1:01 PM	4,504	2940	72.96	321.71	991.29	0.06				1,004.78	0.03
12/20/20 2:01 PM	4,564	3000	72.92	321.68	991.32	0.03				1,004.74	0.08
12/20/20 3:01 PM	4,624	3060	72.97	321.68	991.32	0.03				1,004.67	0.15
12/20/20 4:01 PM	4,684	3120	72.97	321.70	991.30	0.05				1,004.79	0.03
12/20/20 5:01 PM	4,744	3180	72.95	321.64	991.36	-0.01				1,004.83	-0.02
12/20/20 6:01 PM	4,804	3240	72.93	321.62	991.38	-0.03				1,004.76	0.06
12/20/20 7:01 PM	4,864	3300	72.96	321.67	991.33	0.02				1,004.78	0.04
12/20/20 8:01 PM	4,924	3360	72.93	321.72	991.28	0.07				1,004.82	0.00
12/20/20 9:01 PM	4,984	3420	72.93	321.64	991.36	-0.01				1,004.84	-0.03

Note: bgs = below ground surface Column Pipe Diameter = 1 1/4 inches MSL = Mean Sea Level Pump Setting = 380 ft

Horsepower = 1.5 HP

EC=Electrical conductivity (mS/cm)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 3 Temperature (F)	PW Well No. 3 Water Level (ft bgs)	PW Well No. 3 Water Level (ft MSL)	PW Well No. 3 Drawdown (ft)	PW Well No. 3 Pump Rate (gpm)	PW Well No. 3 Specific Capacity (gpm/ft)	Comments	OW Well No. 2 Water Level (ft MSL)	OW Well No. 2 Drawdown (ft)
12/20/20 10:01 PM	5,044	3480	72.94	321.66	991.34	0.01				1,004.81	0.01
12/20/20 11:01 PM	5,104	3540	72.91	321.64	991.36	-0.01				1,004.82	0.00
12/21/20 12:01 AM	5,164	3600	72.94	321.63	991.37	-0.02				1,004.84	-0.03
12/21/20 1:01 AM	5,224	3660	72.93	321.62	991.38	-0.03				1,004.91	-0.09
12/21/20 2:01 AM	5,284	3720	72.96	321.65	991.35	0.00				1,004.87	-0.05
12/21/20 3:01 AM	5,344	3780	73.00	321.63	991.37	-0.02				1,004.83	-0.01
12/21/20 4:01 AM	5,404	3840	72.94	321.60	991.40	-0.05				1,004.84	-0.03
12/21/20 5:01 AM	5,464	3900	72.98	321.58	991.42	-0.07				1,004.86	-0.04
12/21/20 6:01 AM	5,524	3960	72.95	321.56	991.44	-0.09				1,004.90	-0.08
12/21/20 7:01 AM	5,584	4020	72.95	321.60	991.40	-0.05				1,004.98	-0.16
12/21/20 8:01 AM	5,644	4080	72.94	321.52	991.48	-0.13				1,004.92	-0.11
12/21/20 9:01 AM	5,704	4140	72.96	321.57	991.43	-0.08			·		
12/21/20 9:12 AM	5,715	4151	72.95	321.57	991.43	-0.08					



Data Set: \...\PW 3.aqt

Date: 01/15/21 Time: 13:44:16

PROJECT INFORMATION

Company: Wet Rock Groundwater Services

Client: Lonestar Land Partners Location: Blanco County Test Well: Well No. 3

Test Date: 12-17-20

AQUIFER DATA

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

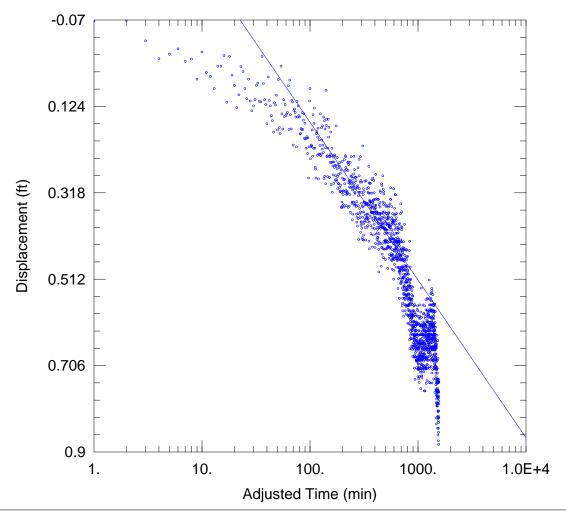
Well Name	X (ft)	Y (ft)
Well No. 3	0	0

SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

 $T = 2771.6 \text{ ft}^2/\text{day}$



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

Date: 01/15/21 Time: 13:43:09

PROJECT INFORMATION

Company: Wet Rock Groundwater Services

Client: Lonestar Land Partners
Location: Blanco County
Test Well: Well No. 3
Test Date: 12-17-20

AQUIFER DATA

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pur	nping Wells		Observation Wells					
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)			
Well No. 3	0	0	Well No. 2	565	0			

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

 $T = 1393.5 \text{ ft}^2/\text{day}$ S = 0.0002418

Aquifer Test

Well No. 4



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. 5 Water Level (ft MSL)	OW Well No. 5 Drawdown (ft)
12/21/20 10:01 AM	0		72.06	324.67	991.33	0.00			Pump Start	992.62	0.00
12/21/20 10:02 AM	1		72.26	329.06	986.94	4.40			Meter: 589,417.02 gallons	992.70	-0.08
12/21/20 10:03 AM	2		72.35	328.52	987.48	3.86				992.58	0.03
12/21/20 10:04 AM	3		72.52	328.60	987.40	3.93				992.67	-0.05
12/21/20 10:05 AM	4		72.60	328.54	987.46	3.87				992.64	-0.02
12/21/20 10:06 AM	5		72.68	328.68	987.32	4.01	11.9	2.97	pH: 7.18/ EC: 2.79	992.65	-0.03
12/21/20 10:07 AM	6		72.68	328.68	987.32	4.01				992.67	-0.05
12/21/20 10:08 AM	7		72.78	328.69	987.31	4.03				992.69	-0.07
12/21/20 10:09 AM	8		72.78	328.65	987.35	3.99				992.74	-0.13
12/21/20 10:10 AM	9		72.85	328.74	987.26	4.07				992.59	0.03
12/21/20 10:11 AM	10		72.88	328.74	987.26	4.08				992.68	-0.07
12/21/20 10:12 AM	11		72.94	328.75	987.25	4.08				992.69	-0.07
12/21/20 10:13 AM	12		72.95	328.87	987.14	4.20				992.60	0.02
12/21/20 10:14 AM	13		72.99	328.79	987.21	4.13				992.52	0.09
12/21/20 10:15 AM	14		73.03	328.84	987.16	4.18				992.63	-0.02
12/21/20 10:16 AM	15		73.04	328.85	987.15	4.18				992.61	0.01
12/21/20 10:21 AM	20		73.15	328.85	987.15	4.19				992.71	-0.10
12/21/20 10:26 AM	25		73.18	328.98	987.02	4.31				992.68	-0.06
12/21/20 10:31 AM	30		73.27	329.05	986.95	4.38				992.60	0.01
12/21/20 10:46 AM	45		73.26	329.09	986.91	4.43				992.58	0.03
12/21/20 11:01 AM	60		73.20	329.04	986.96	4.37				992.56	0.06
12/21/20 11:16 AM	75		73.11	329.25	986.75	4.58				992.58	0.03
12/21/20 11:31 AM	90		73.13	329.14	986.86	4.48	11.9	2.66	pH: 7.11/ EC: 2.76	992.54	0.08
12/21/20 11:46 AM	105		73.09	329.32	986.68	4.65				992.62	0.00
12/21/20 12:01 PM	120		73.11	329.37	986.63	4.71				992.49	0.13
12/21/20 12:31 PM	150		73.13	329.39	986.61	4.73	11.9	2.52	pH: 6.98/ EC: 2.74	992.47	0.15
12/21/20 1:01 PM	180		73.08	329.61	986.39	4.94				992.49	0.13
12/21/20 1:31 PM	210		73.10	329.60	986.40	4.94				992.40	0.21
12/21/20 2:01 PM	240		73.07	329.72	986.29	5.05				992.41	0.21
12/21/20 3:01 PM	300		73.09	329.87	986.13	5.20				992.32	0.30
12/21/20 4:01 PM	360		73.08	329.77	986.23	5.10				992.23	0.38
12/21/20 5:01 PM	420		73.08	330.11	985.89	5.44				992.21	0.40
12/21/20 6:01 PM	480		73.08	330.23	985.77	5.56				992.06	0.56
12/21/20 7:01 PM	540		73.11	330.16	985.84	5.50				992.08	0.54
12/21/20 8:01 PM	600		73.12	330.23	985.77	5.56				991.98	0.63

MSL = Mean Sea Level

Note: bgs = below ground surface Column Pipe Diameter = 1 1/4 inches Pump Setting = 360 ft

Horsepower = 1.5 HP

EC=Electrical conductivity (mS/cm)

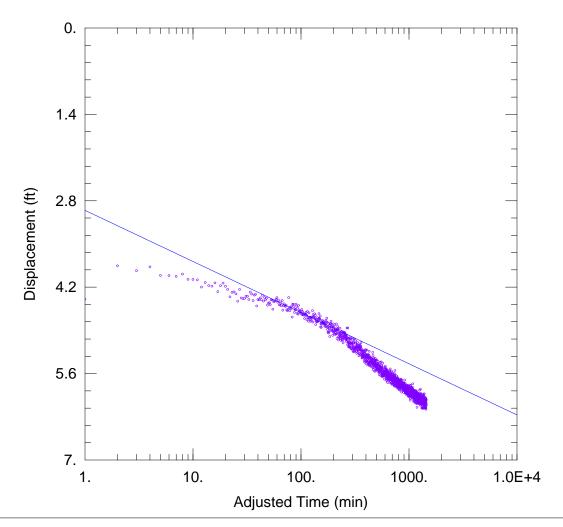
Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 4 Temperature (F)	PW Well No. 4 Water Level (ft bgs)	PW Well No. 4 Water Level (ft MSL)	PW Well No. 4 Drawdown (ft)	PW Well No. 4 Pump Rate (gpm)	PW Well No. 4 Specific Capacity (gpm/ft)	Comments	OW Well No. 5 Water Level (ft MSL)	OW Well No. 5 Drawdown (ft)
12/21/20 9:01 PM	660		73.09	330.36	985.64	5.70				991.92	0.70
12/21/20 10:01 PM	720		73.13	330.38	985.62	5.71				991.93	0.69
12/21/20 11:01 PM	780		73.11	330.43	985.57	5.77				991.87	0.75
12/22/20 12:01 AM	840		73.16	330.46	985.54	5.79				991.75	0.86
12/22/20 1:01 AM	900		73.18	330.45	985.55	5.79				991.79	0.82
12/22/20 2:01 AM	960		73.15	330.49	985.51	5.83				991.76	0.85
12/22/20 3:01 AM	1,020		73.19	330.65	985.35	5.99				991.79	0.83
12/22/20 4:01 AM	1,080		73.21	330.53	985.47	5.86				991.67	0.94
12/22/20 5:01 AM	1,140		73.17	330.63	985.37	5.97				991.64	0.97
12/22/20 6:01 AM	1,200		73.16	330.57	985.43	5.91				991.69	0.92
12/22/20 7:01 AM	1,260		73.11	330.64	985.36	5.97				991.67	0.95
12/22/20 8:01 AM	1,320		73.16	330.70	985.31	6.03				991.63	0.98
12/22/20 9:01 AM	1,380		73.18	330.80	985.20	6.13				991.56	1.05
12/22/20 10:01 AM	1,440		73.15	330.76	985.24	6.09				991.55	1.07
12/22/20 10:07 AM	1,446	0	73.15	330.79	985.21	6.12	11.9	1.94	Pump Stop	991.62	1.00
12/22/20 10:08 AM	1,447	1	73.18	327.48	988.52	2.82			Meter: 606,786.88 gallons	991.55	1.07
12/22/20 10:09 AM	1,448	2	73.37	327.02	988.98	2.35			Avg. Pump Rate: 12 gpm	991.57	1.05
12/22/20 10:10 AM	1,449	3	73.43	326.86	989.14	2.19				991.54	1.08
12/22/20 10:11 AM	1,450	4	73.54	326.93	989.07	2.26				991.47	1.14
12/22/20 10:12 AM	1,451	5	73.63	326.76	989.24	2.09				991.54	1.07
12/22/20 10:13 AM	1,452	6	73.67	326.69	989.31	2.02				991.52	1.10
12/22/20 10:14 AM	1,453	7	73.74	326.68	989.32	2.02				991.52	1.10
12/22/20 10:15 AM	1,454	8	73.78	326.69	989.31	2.03				991.53	1.09
12/22/20 10:16 AM	1,455	9	73.79	326.61	989.39	1.95				991.56	1.05
12/22/20 10:17 AM	1,456	10	73.83	326.59	989.41	1.93				991.52	1.10
12/22/20 10:18 AM	1,457	11	73.90	326.67	989.33	2.01				991.51	1.11
12/22/20 10:19 AM	1,458	12	73.89	326.52	989.48	1.86				991.54	1.08
12/22/20 10:20 AM	1,459	13	74.04	326.60	989.40	1.93				991.56	1.05
12/22/20 10:21 AM	1,460	14	74.09	326.60	989.40	1.93				991.55	1.07
12/22/20 10:22 AM	1,461	15	74.13	326.57	989.43	1.91				991.60	1.02
12/22/20 10:27 AM	1,466	20	74.29	326.47	989.53	1.80				991.55	1.07
12/22/20 10:32 AM	1,471	25	74.32	326.48	989.52	1.82				991.51	1.10
12/22/20 10:37 AM	1,476	30	74.28	326.55	989.45	1.88				991.63	0.99
12/22/20 10:52 AM	1,491	45	74.15	326.35	989.66	1.68				991.57	1.05
12/22/20 11:07 AM	1,506	60	73.98	326.27	989.73	1.61				991.57	1.05

Note: bgs = below ground surface Column Pipe Diameter = 1 1/4 inches

MSL = Mean Sea Level Pump Setting = 360 ft EC=Electric

meter = 1 1/4 inches Horsepower = 1.5 HP 360 ft EC=Electrical conductivity (mS/cm)

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. 5 Water Level (ft MSL)	OW Well No. 5 Drawdown (ft)
12/22/20 11:22 AM	1,521	75	73.86	326.24	989.76	1.58				991.52	1.10
12/22/20 11:37 AM	1,536	90	73.76	326.33	989.67	1.67				991.53	1.09
12/22/20 11:52 AM	1,551	105	73.69	326.19	989.81	1.52				991.67	0.94
12/22/20 12:07 PM	1,566	120	73.61	326.07	989.93	1.41				991.53	1.09
12/22/20 12:37 PM	1,596	150	73.47	326.07	989.93	1.41				991.54	1.08
12/22/20 1:07 PM	1,626	180	73.37	326.08	989.92	1.41				991.55	1.07
12/22/20 1:37 PM	1,656	210	73.28	325.96	990.04	1.30				991.63	0.99
12/22/20 2:07 PM	1,686	240	73.18	325.88	990.12	1.22				991.49	1.13
12/22/20 3:07 PM	1,746	300	73.11	325.76	990.24	1.10				991.65	0.97
12/22/20 4:07 PM	1,806	360	73.06	325.80	990.20	1.13				991.45	1.16
12/22/20 5:07 PM	1,866	420	73.03	325.68	990.32	1.01				991.52	1.10
12/22/20 6:07 PM	1,926	480	73.05	325.67	990.33	1.00				991.60	1.02
12/22/20 7:07 PM	1,986	540	73.05	325.58	990.42	0.92				991.48	1.13
12/22/20 8:07 PM	2,046	600	73.02	325.56	990.44	0.90				991.52	1.10
12/22/20 9:07 PM	2,106	660	73.01	325.47	990.53	0.80				991.55	1.07
12/22/20 10:07 PM	2,166	720	72.96	325.40	990.60	0.74				991.65	0.96
12/22/20 11:07 PM	2,226	780	72.99	325.37	990.63	0.71				991.65	0.97
12/23/20 12:07 AM	2,286	840	72.98	325.32	990.68	0.65				991.62	1.00
12/23/20 1:07 AM	2,346	900	72.99	325.32	990.68	0.65				991.71	0.91
12/23/20 2:07 AM	2,406	960	72.97	325.32	990.68	0.65				991.76	0.85
12/23/20 3:07 AM	2,466	1020	73.01	325.25	990.75	0.58				991.68	0.94
12/23/20 4:07 AM	2,526	1080	72.99	325.30	990.70	0.63				991.85	0.77
12/23/20 5:07 AM	2,586	1140	72.98	325.21	990.79	0.54				991.85	0.76
12/23/20 6:07 AM	2,646	1200	72.99	325.17	990.83	0.50				991.87	0.74
12/23/20 7:07 AM	2,706	1260	73.01	325.12	990.88	0.46				991.72	0.90
12/23/20 8:07 AM	2,766	1320	72.96	325.16	990.84	0.49				991.84	0.77
12/23/20 8:54 AM	2,813	1367	73.02	325.21	990.79	0.54				991.85	0.76



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

Date: 01/15/21 Time: 13:47:50

PROJECT INFORMATION

Company: Wet Rock Groundwater Services

Client: Lonestar Land Partners
Location: Blanco County
Test Well: Well No. 4
Test Date: 12-21-20

AQUIFER DATA

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

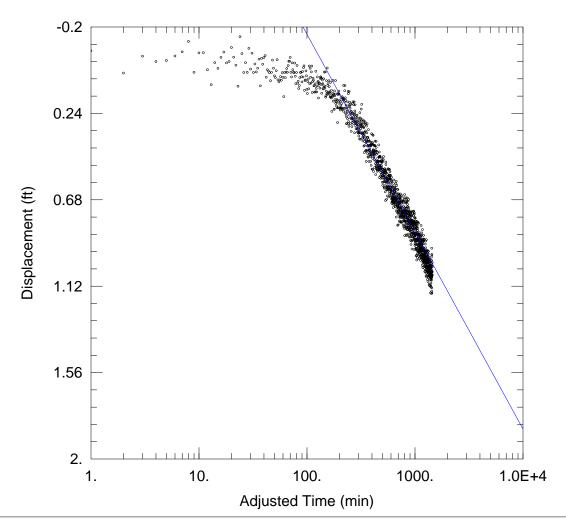
Well Name	X (ft)	Y (ft)
Well No. 4	0	0

SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

 $T = 510.7 \text{ ft}^2/\text{day}$



Data Set: \...\OW 5.aqt

Date: 01/15/21 Time: 13:46:57

PROJECT INFORMATION

Company: Wet Rock Groundwater Services

Client: Lonestar Land Partners
Location: Blanco County
Test Well: Well No. 4
Test Date: 12-21-20

AQUIFER DATA

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pump	ing vveiis		Observation wells					
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)			
Well No. 4	0	0	→ Well No. 5	483	0			

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

 $T = 421.2 \text{ ft}^2/\text{day}$ S = 0.0004088

Aquifer Test

Well No. 5



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. 6 Water Level (ft MSL)	OW Well No. 6 Drawdown (ft)
12/23/20 9:56 AM	0		71.05	334.43	991.57	0.00			Pump Start	988.56	0.00
12/23/20 9:57 AM	1		71.61	337.40	988.60	2.96			Meter: 1,008,779.32 gallons	988.65	-0.08
12/23/20 9:58 AM	2		71.90	337.18	988.82	2.75				988.50	0.07
12/23/20 9:59 AM	3		72.14	337.23	988.77	2.79				988.64	-0.08
12/23/20 10:00 AM	4		72.31	337.25	988.75	2.81				988.61	-0.05
12/23/20 10:01 AM	5		72.48	337.22	988.78	2.79	12.9	4.63		988.58	-0.01
12/23/20 10:02 AM	6		72.57	337.30	988.70	2.87				988.59	-0.03
12/23/20 10:03 AM	7		72.66	337.18	988.82	2.74				988.62	-0.05
12/23/20 10:04 AM	8		72.70	337.24	988.76	2.80				988.57	-0.01
12/23/20 10:05 AM	9		72.73	337.27	988.73	2.83				988.59	-0.02
12/23/20 10:06 AM	10		72.83	337.24	988.76	2.80	11.9	4.24		988.54	0.02
12/23/20 10:07 AM	11		72.84	337.23	988.77	2.80				988.57	-0.01
12/23/20 10:08 AM	12		72.88	337.29	988.71	2.86				988.55	0.02
12/23/20 10:09 AM	13		72.87	337.22	988.78	2.78				988.56	0.01
12/23/20 10:10 AM	14		72.94	337.28	988.72	2.85				988.63	-0.06
12/23/20 10:11 AM	15		72.84	337.34	988.66	2.90	11.9	4.10	pH: 7.05/ EC: 2.78	988.53	0.04
12/23/20 10:16 AM	20		72.95	337.30	988.70	2.86				988.62	-0.05
12/23/20 10:21 AM	25		72.95	337.42	988.58	2.99				988.57	0.00
12/23/20 10:26 AM	30		73.02	337.39	988.61	2.96				988.47	0.09
12/23/20 10:41 AM	45		73.04	337.54	988.46	3.10				988.38	0.18
12/23/20 10:56 AM	60		73.07	337.62	988.38	3.18				988.24	0.33
12/23/20 11:11 AM	75		73.05	337.70	988.30	3.27				988.40	0.17
12/23/20 11:26 AM	90		73.01	337.84	988.16	3.40				988.24	0.33
12/23/20 11:41 AM	105		73.00	337.87	988.13	3.43				988.05	0.52
12/23/20 11:56 AM	120		73.00	337.86	988.14	3.42	12.0	3.51	pH: 7.06/ EC: 2.73	988.10	0.46
12/23/20 12:26 PM	150		72.96	338.05	987.95	3.61				987.86	0.71
12/23/20 12:56 PM	180		72.98	338.26	987.74	3.83				987.72	0.85
12/23/20 1:26 PM	210		73.00	338.45	987.55	4.02				987.57	1.00
12/23/20 1:56 PM	240		73.02	338.50	987.50	4.06				987.45	1.11
12/23/20 2:56 PM	300		73.00	338.75	987.25	4.31				987.33	1.23
12/23/20 3:56 PM	360		73.01	339.01	986.99	4.58				986.96	1.60
12/23/20 4:56 PM	420		73.03	339.18	986.82	4.75				986.87	1.70
12/23/20 5:56 PM	480		73.02	339.43	986.57	5.00				986.58	1.99
12/23/20 6:56 PM	540		73.00	339.63	986.37	5.19				986.49	2.08
12/23/20 7:56 PM	600		73.03	339.67	986.33	5.24				986.29	2.28

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. 6 Water Level (ft MSL)	OW Well No. 6 Drawdown (ft)
12/23/20 8:56 PM	660		73.01	339.76	986.24	5.32				986.18	2.38
12/23/20 9:56 PM	720		72.97	339.87	986.13	5.44				986.10	2.46
12/23/20 10:56 PM	780		73.04	339.95	986.05	5.52				986.08	2.49
12/23/20 11:56 PM	840		73.04	340.00	986.01	5.56				985.95	2.62
12/24/20 12:56 AM	900		73.07	340.05	985.95	5.62				985.94	2.62
12/24/20 1:56 AM	960		73.00	340.11	985.89	5.67				985.93	2.63
12/24/20 2:56 AM	1,020		73.02	340.18	985.82	5.74				985.88	2.69
12/24/20 3:56 AM	1,080		73.04	340.23	985.77	5.80				985.76	2.80
12/24/20 4:56 AM	1,140		73.05	340.26	985.75	5.82				985.84	2.72
12/24/20 5:56 AM	1,200		73.01	340.27	985.73	5.84				985.83	2.74
12/24/20 6:56 AM	1,260		73.00	340.30	985.71	5.86				985.75	2.81
12/24/20 7:56 AM	1,320		73.05	340.33	985.67	5.90				985.77	2.79
12/24/20 8:56 AM	1,380		73.06	340.28	985.72	5.85				985.67	2.90
12/24/20 9:56 AM	1,440		73.06	340.29	985.72	5.85				985.61	2.96
12/24/20 10:08 AM	1,452	0	73.02	340.39	985.62	5.95	11.9	2.00	Pump Stop	985.70	2.87
12/24/20 10:09 AM	1,453	1	73.08	337.98	988.03	3.54			Meter: 1,026,081.63 gallons	985.76	2.81
12/24/20 10:10 AM	1,454	2	73.15	337.81	988.19	3.38			Avg. Pump Rate: 12 gpm	985.66	2.91
12/24/20 10:11 AM	1,455	3	73.20	337.72	988.28	3.29				985.77	2.79
12/24/20 10:12 AM	1,456	4	73.30	337.73	988.28	3.29				985.68	2.88
12/24/20 10:13 AM	1,457	5	73.38	337.70	988.30	3.26				985.73	2.84
12/24/20 10:14 AM	1,458	6	73.47	337.69	988.31	3.25				985.82	2.75
12/24/20 10:15 AM	1,459	7	73.57	337.66	988.34	3.23				985.66	2.91
12/24/20 10:16 AM	1,460	8	73.63	337.68	988.32	3.25				985.68	2.88
12/24/20 10:17 AM	1,461	9	73.68	337.61	988.40	3.17				985.76	2.80
12/24/20 10:18 AM	1,462	10	73.77	337.60	988.40	3.17				985.67	2.90
12/24/20 10:19 AM	1,463	11	73.83	337.63	988.37	3.20				985.73	2.84
12/24/20 10:20 AM	1,464	12	73.90	337.67	988.34	3.23				985.71	2.85
12/24/20 10:21 AM	1,465	13	73.93	337.58	988.42	3.14				985.76	2.80
12/24/20 10:22 AM	1,466	14	74.02	337.60	988.40	3.17				985.75	2.82
12/24/20 10:23 AM	1,467	15	74.06	337.61	988.39	3.18				985.75	2.81
12/24/20 10:28 AM	1,472	20	74.19	337.57	988.43	3.14				985.72	2.84
12/24/20 10:33 AM	1,477	25	74.19	337.52	988.48	3.08				985.73	2.84
12/24/20 10:38 AM	1,482	30	74.27	337.49	988.51	3.05				985.79	2.78
12/24/20 10:53 AM	1,497	45	74.27	337.37	988.63	2.94				985.85	2.71
12/24/20 11:08 AM	1,512	60	73.88	337.32	988.68	2.88				985.96	2.61

Note: bgs = below ground surface Column Pipe Diameter = 1 1/4 inches MSL = Mean Sea Level Pump Setting = 380 ft EC=Electrical conductivity (mS/cm)

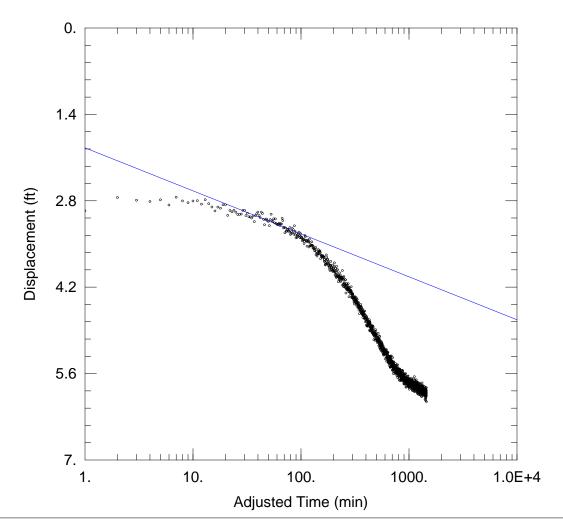
Horsepower = 1.5 HP

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. 6 Water Level (ft MSL)	OW Well No. 6 Drawdown (ft)
12/24/20 11:23 AM	1,527	75	73.60	337.24	988.76	2.81				985.91	2.65
12/24/20 11:38 AM	1,542	90	73.46	337.12	988.88	2.69				986.02	2.55
12/24/20 11:53 AM	1,557	105	73.36	337.09	988.91	2.66				986.14	2.43
12/24/20 12:08 PM	1,572	120	73.33	336.99	989.01	2.56				986.13	2.43
12/24/20 12:38 PM	1,602	150	73.11	336.80	989.20	2.36				986.18	2.38
12/24/20 1:08 PM	1,632	180	73.06	336.75	989.25	2.31				986.37	2.19
12/24/20 1:38 PM	1,662	210	73.03	336.58	989.42	2.15				986.43	2.14
12/24/20 2:08 PM	1,692	240	73.06	336.50	989.50	2.07				986.58	1.99
12/24/20 3:08 PM	1,752	300	72.99	336.37	989.63	1.93				986.82	1.74
12/24/20 4:08 PM	1,812	360	72.96	336.10	989.90	1.66				986.95	1.61
12/24/20 5:08 PM	1,872	420	72.97	336.02	989.98	1.58				987.05	1.52
12/24/20 6:08 PM	1,932	480	72.93	335.83	990.17	1.40				987.28	1.28
12/24/20 7:08 PM	1,992	540	72.96	335.65	990.35	1.22				987.40	1.16
12/24/20 8:08 PM	2,052	600	72.92	335.48	990.52	1.05				987.55	1.01
12/24/20 9:08 PM	2,112	660	72.88	335.36	990.64	0.93				987.60	0.97
12/24/20 10:08 PM	2,172	720	72.92	335.31	990.69	0.88				987.72	0.84
12/24/20 11:08 PM	2,232	780	72.92	335.24	990.76	0.80				987.83	0.73
12/25/20 12:08 AM	2,292	840	72.90	335.02	990.98	0.59				987.91	0.65
12/25/20 1:08 AM	2,352	900	72.92	335.03	990.98	0.59				988.15	0.41
12/25/20 2:08 AM	2,412	960	72.92	334.85	991.15	0.41				988.11	0.45
12/25/20 3:08 AM	2,472	1020	72.90	334.76	991.25	0.32				988.19	0.38
12/25/20 4:08 AM	2,532	1080	72.92	334.62	991.39	0.18				988.28	0.29
12/25/20 5:08 AM	2,592	1140	72.93	334.68	991.32	0.25				988.31	0.25
12/25/20 6:08 AM	2,652	1200	72.89	334.54	991.46	0.11				988.47	0.09
12/25/20 7:08 AM	2,712	1260	72.89	334.45	991.55	0.02				988.51	0.06
12/25/20 8:08 AM	2,772	1320	72.91	334.44	991.56	0.01				988.57	0.00
12/25/20 9:08 AM	2,832	1380	72.93	334.35	991.65	-0.08				988.68	-0.11
12/25/20 10:08 AM	2,892	1440	72.88	334.29	991.71	-0.14				988.77	-0.20
12/25/20 11:08 AM	2,952	1500	72.86	334.26	991.74	-0.17				988.77	-0.20
12/25/20 12:08 PM	3,012	1560	72.91	334.20	991.81	-0.24				988.80	-0.23
12/25/20 1:08 PM	3,072	1620	72.94	334.09	991.91	-0.35				988.73	-0.16
12/25/20 2:08 PM	3,132	1680	72.95	334.05	991.95	-0.39				988.80	-0.24
12/25/20 3:08 PM	3,192	1740	72.93	333.96	992.04	-0.48				988.87	-0.31

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. 6 Water Level (ft MSL)	OW Well No. 6 Drawdown (ft)
12/25/20 4:08 PM	3,252	1800	72.87	333.95	992.05	-0.48				988.93	-0.36
12/25/20 5:08 PM	3,312	1860	72.89	334.01	991.99	-0.43				988.98	-0.41
12/25/20 6:08 PM	3,372	1920	72.89	334.04	991.96	-0.39				989.04	-0.47
12/25/20 7:08 PM	3,432	1980	72.88	333.91	992.10	-0.53				989.02	-0.46
12/25/20 8:08 PM	3,492	2040	72.86	333.91	992.09	-0.53				989.06	-0.50
12/25/20 9:08 PM	3,552	2100	72.86	333.85	992.15	-0.58				989.15	-0.58
12/25/20 10:08 PM	3,612	2160	72.89	333.82	992.18	-0.62				989.06	-0.50
12/25/20 11:08 PM	3,672	2220	72.91	333.81	992.19	-0.62				989.13	-0.56
12/26/20 12:08 AM	3,732	2280	72.93	333.76	992.24	-0.67				989.25	-0.69
12/26/20 1:08 AM	3,792	2340	72.87	333.71	992.29	-0.72				989.14	-0.58
12/26/20 2:08 AM	3,852	2400	72.88	333.74	992.26	-0.69				989.20	-0.63
12/26/20 3:08 AM	3,912	2460	72.88	333.71	992.29	-0.72				989.30	-0.74
12/26/20 4:08 AM	3,972	2520	72.88	333.66	992.34	-0.77				989.21	-0.64
12/26/20 5:08 AM	4,032	2580	72.87	333.68	992.33	-0.76				989.29	-0.73
12/26/20 6:08 AM	4,092	2640	72.88	333.65	992.35	-0.78				989.37	-0.80
12/26/20 7:08 AM	4,152	2700	72.88	333.63	992.37	-0.80				989.33	-0.76
12/26/20 8:08 AM	4,212	2760	72.90	333.57	992.43	-0.87				989.42	-0.86
12/26/20 9:08 AM	4,272	2820	72.87	333.56	992.44	-0.88				989.40	-0.83
12/26/20 10:08 AM	4,332	2880	72.89	333.58	992.42	-0.86				989.44	-0.88
12/26/20 11:08 AM	4,392	2940	72.87	333.56	992.44	-0.87				989.49	-0.92
12/26/20 12:08 PM	4,452	3000	72.93	333.43	992.57	-1.00				989.46	-0.89
12/26/20 1:08 PM	4,512	3060	72.89	333.48	992.52	-0.95				989.42	-0.85
12/26/20 2:08 PM	4,572	3120	72.87	333.47	992.53	-0.96				989.55	-0.99
12/26/20 3:08 PM	4,632	3180	72.91	333.55	992.45	-0.88				989.50	-0.93
12/26/20 4:08 PM	4,692	3240	72.89	333.43	992.58	-1.01				989.56	-0.99
12/26/20 5:08 PM	4,752	3300	72.87	333.44	992.56	-0.99				989.53	-0.96
12/26/20 6:08 PM	4,812	3360	72.87	333.35	992.65	-1.08				989.51	-0.94
12/26/20 7:08 PM	4,872	3420	72.89	333.45	992.55	-0.98				989.42	-0.86
12/26/20 8:08 PM	4,932	3480	72.90	333.42	992.58	-1.02				989.56	-0.99
12/26/20 9:08 PM	4,992	3540	72.85	333.42	992.58	-1.02				989.48	-0.92

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. 6 Water Level (ft MSL)	OW Well No. 6 Drawdown (ft)
12/26/20 10:08 PM	5,052	3600	72.86	333.49	992.51	-0.95				989.55	-0.99
12/26/20 11:08 PM	5,112	3660	72.88	333.41	992.59	-1.02				989.53	-0.96
12/27/20 12:08 AM	5,172	3720	72.89	333.40	992.60	-1.03				989.57	-1.00
12/27/20 1:08 AM	5,232	3780	72.87	333.29	992.71	-1.14				989.54	-0.98
12/27/20 2:08 AM	5,292	3840	72.86	333.32	992.68	-1.11				989.61	-1.05
12/27/20 3:08 AM	5,352	3900	72.86	333.31	992.70	-1.13				989.56	-0.99
12/27/20 4:08 AM	5,412	3960	72.90	333.46	992.54	-0.98				989.66	-1.09
12/27/20 5:08 AM	5,472	4020	72.89	333.35	992.65	-1.08				989.55	-0.98
12/27/20 6:08 AM	5,532	4080	72.84	333.31	992.69	-1.13				989.61	-1.05
12/27/20 7:08 AM	5,592	4140	72.85	333.33	992.67	-1.10				989.60	-1.04
12/27/20 8:08 AM	5,652	4200	72.82	333.34	992.66	-1.10				989.65	-1.08
12/27/20 9:08 AM	5,712	4260	72.88	333.27	992.73	-1.16				989.65	-1.08
12/27/20 10:08 AM	5,772	4320	72.85	333.30	992.70	-1.14				989.75	-1.18
12/27/20 11:08 AM	5,832	4380	72.85	333.29	992.71	-1.15				989.66	-1.10
12/27/20 12:08 PM	5,892	4440	72.88	333.26	992.74	-1.18				989.64	-1.07
12/27/20 1:08 PM	5,952	4500	72.90	333.31	992.69	-1.13				989.66	-1.10
12/27/20 2:08 PM	6,012	4560	72.87	333.20	992.80	-1.23				989.75	-1.18
12/27/20 3:08 PM	6,072	4620	72.85	333.28	992.72	-1.15				989.72	-1.15
12/27/20 4:08 PM	6,132	4680	72.86	333.26	992.74	-1.18				989.69	-1.13
12/27/20 5:08 PM	6,192	4740	72.82	333.28	992.72	-1.16				989.66	-1.10
12/27/20 6:08 PM	6,252	4800	72.86	333.26	992.74	-1.18				989.75	-1.18
12/27/20 7:08 PM	6,312	4860	72.85	333.18	992.82	-1.26				989.80	-1.24
12/27/20 8:08 PM	6,372	4920	72.92	333.30	992.70	-1.14				989.72	-1.15
12/27/20 9:08 PM	6,432	4980	72.90	333.24	992.76	-1.20				989.77	-1.21
12/27/20 10:08 PM	6,492	5040	72.88	333.24	992.76	-1.19				989.77	-1.21
12/27/20 11:08 PM	6,552	5100	72.85	333.13	992.87	-1.30				989.66	-1.09
12/28/20 12:08 AM	6,612	5160	72.87	333.26	992.74	-1.17				989.70	-1.13
12/28/20 1:08 AM	6,672	5220	72.87	333.20	992.80	-1.23				989.75	-1.18
12/28/20 2:08 AM	6,732	5280	72.90	333.20	992.80	-1.23				989.85	-1.29
12/28/20 3:08 AM	6,792	5340	72.87	333.10	992.90	-1.34				989.76	-1.20

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. 6 Water Level (ft MSL)	OW Well No. 6 Drawdown (ft)
12/28/20 4:08 AM	6,852	5400	72.83	333.11	992.89	-1.33				989.82	-1.26
12/28/20 5:08 AM	6,912	5460	72.88	333.10	992.90	-1.33				989.79	-1.23
12/28/20 6:08 AM	6,972	5520	72.88	333.04	992.97	-1.40				989.81	-1.24
12/28/20 7:08 AM	7,032	5580	72.84	333.09	992.91	-1.34				989.85	-1.29
12/28/20 8:08 AM	7,092	5640	72.86	333.07	992.93	-1.37				989.91	-1.34
12/28/20 9:08 AM	7,152	5700	72.86	333.06	992.95	-1.38				989.85	-1.28
12/28/20 9:43 AM	7,187	5735	72.83	333.05	992.95	-1.38				989.86	-1.30



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

Date: 01/15/21 Time: 13:54:28

PROJECT INFORMATION

Company: Wet Rock Groundwater Services

Client: Lonestar Land Partners
Location: Blanco County
Test Well: Well No. 5

Test Date: 12-23-20

AQUIFER DATA

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

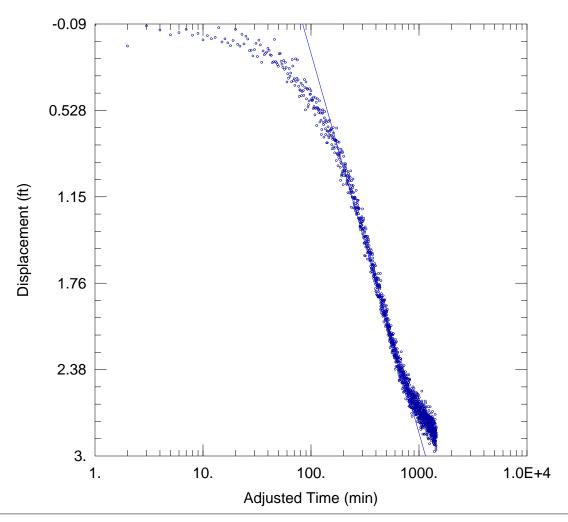
Well Name	X (ft)	Y (ft)
Well No. 5	0	0

SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

 $T = 607.7 \text{ ft}^2/\text{day}$



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

Date: 01/15/21 Time: 13:51:39

PROJECT INFORMATION

Company: Wet Rock Groundwater Services

Client: Lonestar Land Partners
Location: Blanco County
Test Well: Well No. 5

Test Date: 12-23-20

AQUIFER DATA

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pump	ing Wells		Observation Wells					
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)			
Well No. 5	0	0	→ Well No. 6	619	0			

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

 $T = 155.9 \text{ ft}^2/\text{day}$ S = 5.734E-5

Aquifer Test

Well No. 7



Legacy Hills Well No. 7 - Aquifer Test (January 6, 2021)

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. 8 Water Level (ft MSL)	OW Well No. 8 Drawdown (ft)
1/6/21 9:51 AM	0		70.93	350.47	981.53	0.00			Pump Start	983.49	0.00
1/6/21 9:52 AM	1		71.36	351.41	980.59	0.94	13.8	14.67	Meter: 637,626.28 gallons	983.49	0.00
1/6/21 9:53 AM	2		71.66	352.19	979.81	1.72				983.47	0.02
1/6/21 9:54 AM	3		71.91	352.31	979.70	1.84				983.40	0.09
1/6/21 9:55 AM	4		72.09	352.49	979.51	2.02				983.38	0.11
1/6/21 9:56 AM	5		72.19	352.53	979.47	2.06	13.8	6.69		983.35	0.14
1/6/21 9:57 AM	6		72.32	352.58	979.42	2.11				983.19	0.30
1/6/21 9:58 AM	7		72.41	352.69	979.31	2.22				983.23	0.26
1/6/21 9:59 AM	8		72.44	352.65	979.35	2.18				983.19	0.30
1/6/21 10:00 AM	9		72.51	352.67	979.33	2.20				983.20	0.29
1/6/21 10:01 AM	10		72.53	352.90	979.11	2.42	13.8	5.69	pH: 7.10/ EC: 2.70	983.16	0.33
1/6/21 10:02 AM	11		72.54	352.79	979.21	2.32				983.08	0.41
1/6/21 10:03 AM	12		72.59	352.84	979.16	2.37				983.16	0.33
1/6/21 10:04 AM	13		72.62	352.88	979.12	2.41				983.10	0.38
1/6/21 10:05 AM	14		72.61	352.90	979.10	2.43				983.10	0.39
1/6/21 10:06 AM	15		72.64	353.02	978.98	2.55				983.05	0.44
1/6/21 10:11 AM	20		72.66	352.97	979.03	2.50				983.04	0.45
1/6/21 10:16 AM	25		72.68	353.07	978.93	2.60				982.81	0.68
1/6/21 10:21 AM	30		72.73	353.14	978.86	2.67				982.92	0.57
1/6/21 10:36 AM	45		72.78	353.28	978.72	2.81				982.74	0.75
1/6/21 10:51 AM	60		72.89	353.38	978.62	2.91	13.8	4.74	pH: 7.21/ EC: 2.84	982.58	0.91
1/6/21 11:06 AM	75		72.90	353.52	978.49	3.04				982.54	0.95
1/6/21 11:21 AM	90		73.00	353.64	978.36	3.17				982.42	1.07
1/6/21 11:36 AM	105		72.99	353.76	978.24	3.29				982.38	1.11
1/6/21 11:51 AM	120		73.02	353.71	978.29	3.24	13.6	4.20	pH: 7.20/ EC: 2.84	982.26	1.23
1/6/21 12:21 PM	150		73.02	353.84	978.16	3.37				982.25	1.24
1/6/21 12:51 PM	180		73.09	353.93	978.07	3.46				982.17	1.32
1/6/21 1:21 PM	210		73.11	354.04	977.96	3.57				982.09	1.40
1/6/21 1:51 PM	240		73.09	354.12	977.88	3.65				982.06	1.43
1/6/21 2:51 PM	300		73.11	354.23	977.77	3.76				981.81	1.68
1/6/21 3:51 PM	360		73.19	354.33	977.67	3.86				981.80	1.69
1/6/21 4:51 PM	420		73.19	354.50	977.50	4.03				981.64	1.85
1/6/21 5:51 PM	480		73.27	354.50	977.50	4.03				981.60	1.89
1/6/21 6:51 PM	540		73.20	354.65	977.35	4.18				981.48	2.01
1/6/21 7:51 PM	600		73.22	354.58	977.43	4.11				981.49	2.00

MSL = Mean Sea Level

Note: bgs = below ground surface Column Pipe Diameter = 1 1/4 inches Horsepower = 1.5 HP

Pump Setting = 380 ft EC=Electrical conductivity (mS/cm)

Legacy Hills Well No. 7 - Aquifer Test (January 6, 2021)

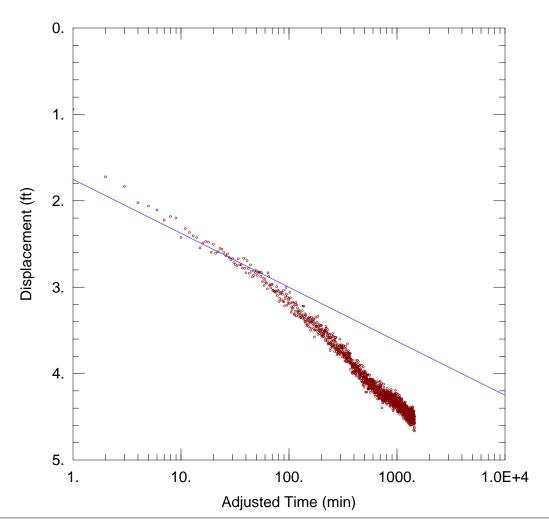
Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 7 Temperature (F)	PW Well No. 7 Water Level (ft bgs)	PW Well No. 7 Water Level (ft MSL)	PW Well No. 7 Drawdown (ft)	PW Well No. 7 Pump Rate (gpm)	PW Well No. 7 Specific Capacity (gpm/ft)	Comments	OW Well No. 8 Water Level (ft MSL)	OW Well No. 8 Drawdown (ft)
1/6/21 8:51 PM	660		73.22	354.69	977.31	4.22				981.39	2.10
1/6/21 9:51 PM	720		73.25	354.59	977.41	4.12				981.42	2.07
1/6/21 10:51 PM	780		73.19	354.76	977.24	4.29				981.30	2.19
1/6/21 11:51 PM	840		73.17	354.73	977.27	4.26				981.30	2.19
1/7/21 12:51 AM	900		73.18	354.82	977.18	4.35				981.27	2.22
1/7/21 1:51 AM	960		73.16	354.75	977.25	4.28				981.28	2.21
1/7/21 2:51 AM	1,020		73.17	354.80	977.20	4.33				981.25	2.24
1/7/21 3:51 AM	1,080		73.12	354.82	977.18	4.35				981.20	2.29
1/7/21 4:51 AM	1,140		73.12	354.89	977.11	4.42				981.13	2.36
1/7/21 5:51 AM	1,200		73.16	354.98	977.02	4.51				981.05	2.44
1/7/21 6:51 AM	1,260		73.18	355.02	976.98	4.55				981.11	2.38
1/7/21 7:51 AM	1,320		73.18	354.92	977.08	4.45				981.11	2.38
1/7/21 8:51 AM	1,380		73.18	355.04	976.97	4.57				981.09	2.40
1/7/21 9:51 AM	1,440		73.20	354.93	977.07	4.46				981.05	2.44
1/7/21 10:09 AM	1,458	0	73.18	354.97	977.03	4.50	13.4	2.98	Pump Stop	981.11	2.38
1/7/21 10:10 AM	1,459	1	73.19	353.62	978.38	3.15			Meter: 657,213.82 gallons	981.16	2.33
1/7/21 10:11 AM	1,460	2	73.36	353.21	978.79	2.74			Avg. Pump Rate: 13.4 gpm	981.18	2.31
1/7/21 10:12 AM	1,461	3	73.43	353.01	978.99	2.54				981.13	2.36
1/7/21 10:13 AM	1,462	4	73.57	352.86	979.14	2.39				981.21	2.28
1/7/21 10:14 AM	1,463	5	73.61	352.93	979.07	2.46				981.22	2.27
1/7/21 10:15 AM	1,464	6	73.74	352.83	979.17	2.36				981.32	2.17
1/7/21 10:16 AM	1,465	7	73.90	352.76	979.24	2.29				981.36	2.13
1/7/21 10:17 AM	1,466	8	73.97	352.75	979.25	2.28				981.40	2.09
1/7/21 10:18 AM	1,467	9	74.09	352.76	979.24	2.29				981.37	2.12
1/7/21 10:19 AM	1,468	10	74.28	352.60	979.40	2.13				981.35	2.14
1/7/21 10:20 AM	1,469	11	74.33	352.61	979.39	2.14				981.42	2.07
1/7/21 10:21 AM	1,470	12	74.40	352.61	979.39	2.14				981.38	2.11
1/7/21 10:22 AM	1,471	13	74.54	352.67	979.33	2.20				981.63	1.86
1/7/21 10:23 AM	1,472	14	74.58	352.54	979.46	2.07				981.54	1.95
1/7/21 10:24 AM	1,473	15	74.64	352.64	979.36	2.17				981.54	1.95
1/7/21 10:29 AM	1,478	20	74.99	352.42	979.58	1.95				981.64	1.85
1/7/21 10:34 AM	1,483	25	75.15	352.35	979.65	1.88				981.61	1.88
1/7/21 10:39 AM	1,488	30	75.26	352.29	979.71	1.82				981.79	1.70
1/7/21 10:54 AM	1,503	45	75.18	352.15	979.85	1.68	_			981.92	1.57
1/7/21 11:09 AM	1,518	60	74.91	352.04	979.97	1.57				981.95	1.54

Note: bgs = below ground surface Column Pipe Diameter = 1 1/4 inches MSL = Mean Sea Level

Horsepower = 1.5 HP

Legacy Hills Well No. 7 - Aquifer Test (January 6, 2021)

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. 8 Water Level (ft MSL)	OW Well No. 8 Drawdown (ft)
1/7/21 11:24 AM	1,533	75	74.62	351.99	980.01	1.52				982.09	1.39
1/7/21 11:39 AM	1,548	90	74.41	351.84	980.16	1.37				982.13	1.36
1/7/21 11:54 AM	1,563	105	74.22	351.80	980.20	1.33				982.10	1.39
1/7/21 12:09 PM	1,578	120	74.06	351.73	980.27	1.26				982.30	1.19
1/7/21 12:39 PM	1,608	150	73.71	351.66	980.34	1.19				982.33	1.16
1/7/21 1:09 PM	1,638	180	73.49	351.63	980.37	1.16				982.45	1.04
1/7/21 1:39 PM	1,668	210	73.37	351.51	980.49	1.04				982.51	0.98
1/7/21 2:09 PM	1,698	240	73.22	351.57	980.43	1.10				982.56	0.93
1/7/21 3:09 PM	1,758	300	73.02	351.39	980.61	0.92				982.57	0.92
1/7/21 4:09 PM	1,818	360	72.93	351.32	980.68	0.85				982.78	0.71
1/7/21 5:09 PM	1,878	420	72.85	351.28	980.72	0.81				982.75	0.74
1/7/21 6:09 PM	1,938	480	72.81	351.28	980.72	0.81				982.72	0.77
1/7/21 7:09 PM	1,998	540	72.83	351.25	980.75	0.78				982.80	0.69
1/7/21 8:09 PM	2,058	600	72.79	351.12	980.88	0.65				982.85	0.64
1/7/21 9:09 PM	2,118	660	72.71	351.23	980.77	0.76				982.85	0.63
1/7/21 10:09 PM	2,178	720	72.72	351.10	980.90	0.63				982.95	0.54
1/7/21 11:09 PM	2,238	780	72.72	351.11	980.89	0.64				982.96	0.53
1/8/21 12:09 AM	2,298	840	72.72	351.02	980.98	0.55				982.99	0.50
1/8/21 1:09 AM	2,358	900	72.67	350.93	981.07	0.46				983.00	0.49
1/8/21 2:09 AM	2,418	960	72.68	351.00	981.00	0.53				983.08	0.40
1/8/21 3:09 AM	2,478	1020	72.71	350.88	981.12	0.41				983.16	0.33
1/8/21 4:09 AM	2,538	1080	72.70	350.79	981.21	0.32				983.23	0.26
1/8/21 5:09 AM	2,598	1140	72.65	350.83	981.17	0.36				983.21	0.28
1/8/21 6:09 AM	2,658	1200	72.70	350.80	981.20	0.33				983.22	0.27
1/8/21 7:09 AM	2,718	1260	72.65	350.72	981.28	0.25				983.18	0.31
1/8/21 8:09 AM	2,778	1320	72.66	350.67	981.33	0.20				983.30	0.19
1/8/21 9:09 AM	2,838	1380	72.68	350.72	981.28	0.25				983.29	0.20
1/8/21 9:40 AM	2,869	1411	72.66	350.75	981.25	0.28					



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

Date: 01/15/21 Time: 14:00:52

PROJECT INFORMATION

Company: Wet Rock Groundwater Services

Client: Lonestar Land Partners
Location: Blanco County
Test Well: Well No. 7
Test Date: 1-6-20

AQUIFER DATA

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

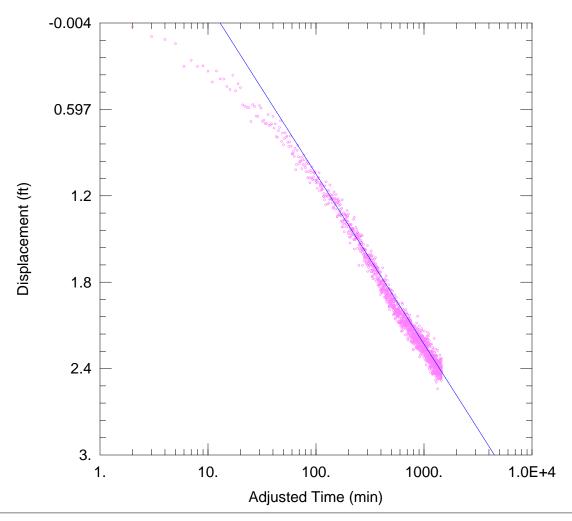
Well Name	X (ft)	Y (ft)
Well No. 7	0	0

SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

 $T = \frac{756.4}{1}$ ft²/day



Data Set: \...\OW 8.aqt

Date: 01/15/21 Time: 13:56:52

PROJECT INFORMATION

Company: Wet Rock Groundwater Services

Client: Lonestar Land Partners
Location: Blanco County
Test Well: Well No. 7

Test Date: 1-6-20

AQUIFER DATA

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

	Pumping Wells		Observation Wells					
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)			
Well No. 7	0	0	Well No. 8	566	0			

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

 $T = 399.7 \text{ ft}^2/\text{day}$ S = 2.539E-5

Aquifer Test

Well No. 9



Legacy Hills Well No. 9 - Aquifer Test (January 4, 2021)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 9 Temperature (F)	PW Well No. 9 Water Level (ft bgs)	PW Well No. 9 Water Level (ft MSL)	PW Well No. 9 Drawdown (ft)	PW Well No. 9 Pump Rate (gpm)	PW Well No. 9 Specific Capacity (gpm/ft)	Comments	OW Well No. 4 Water Level (ft MSL)	OW Well No. 4 Drawdown (ft)
1/4/21 10:20 AM	0		72.61	350.21	990.79	0.00			Pump Start	992.02	0.00
1/4/21 10:21 AM	1		72.63	352.05	988.95	1.84	11.4	6.20	Meter: 624,651.5 gallons	992.12	-0.10
1/4/21 10:22 AM	2		72.67	352.36	988.64	2.15				992.06	-0.04
1/4/21 10:23 AM	3		72.62	352.06	988.95	1.85				992.06	-0.05
1/4/21 10:24 AM	4		72.70	352.17	988.83	1.96				992.05	-0.03
1/4/21 10:25 AM	5		72.70	352.12	988.88	1.91	11.4	5.96	pH: 6.99/ EC: 1.17	992.07	-0.05
1/4/21 10:26 AM	6		72.70	352.18	988.82	1.97				992.11	-0.09
1/4/21 10:27 AM	7		72.72	352.11	988.89	1.90				992.13	-0.11
1/4/21 10:28 AM	8		72.74	352.20	988.80	1.99				992.12	-0.10
1/4/21 10:29 AM	9		72.73	352.28	988.72	2.07				992.05	-0.04
1/4/21 10:30 AM	10		72.73	352.29	988.71	2.08				992.06	-0.05
1/4/21 10:31 AM	11		72.78	352.27	988.73	2.06				992.06	-0.05
1/4/21 10:32 AM	12		72.80	352.28	988.72	2.07				992.10	-0.08
1/4/21 10:33 AM	13		72.75	352.33	988.67	2.12				992.11	-0.09
1/4/21 10:34 AM	14		72.84	352.43	988.57	2.22				992.00	0.01
1/4/21 10:35 AM	15		72.78	352.38	988.62	2.17	11.4	5.25	pH: 7.00/ EC: 1.58	992.09	-0.07
1/4/21 10:40 AM	20		72.82	352.53	988.47	2.32				992.11	-0.09
1/4/21 10:45 AM	25		72.83	352.61	988.39	2.40				992.00	0.02
1/4/21 10:50 AM	30		72.83	352.73	988.27	2.52				992.03	-0.02
1/4/21 11:05 AM	45		72.93	352.85	988.15	2.64				992.06	-0.04
1/4/21 11:20 AM	60		73.04	353.05	987.95	2.84				992.04	-0.02
1/4/21 11:35 AM	75		73.47	352.73	988.27	2.52				992.10	-0.09
1/4/21 11:50 AM	90		73.36	352.79	988.21	2.58	9.2	3.56	pH: 7.07/ EC: 2.25	992.03	-0.02
1/4/21 12:05 PM	105		73.38	352.79	988.21	2.58				992.11	-0.09
1/4/21 12:20 PM	120		73.36	353.02	987.98	2.81				991.98	0.04
1/4/21 12:50 PM	150		73.47	353.03	987.97	2.82				992.04	-0.02
1/4/21 1:20 PM	180		73.50	353.30	987.70	3.09				992.01	0.00
1/4/21 1:50 PM	210		73.55	353.27	987.73	3.06				992.01	0.00
1/4/21 2:20 PM	240		73.62	353.40	987.60	3.19				991.88	0.13
1/4/21 3:20 PM	300		73.67	353.48	987.52	3.27				992.03	-0.01
1/4/21 4:20 PM	360		73.69	353.67	987.33	3.46				991.92	0.10
1/4/21 5:20 PM	420		73.74	353.67	987.33	3.46				991.79	0.23
1/4/21 6:20 PM	480		73.76	353.70	987.30	3.49				991.75	0.26
1/4/21 7:20 PM	540		73.72	353.79	987.21	3.58				991.72	0.29
1/4/21 8:20 PM	600		73.78	353.67	987.33	3.46				991.73	0.29

MSL = Mean Sea Level

Note: bgs = below ground surface Column Pipe Diameter = 1 1/4 inches

Horsepower = 1.5 HP

Pump Setting = 360 ft EC=Electrical conductivity (mS/cm)

Legacy Hills Well No. 9 - Aquifer Test (January 4, 2021)

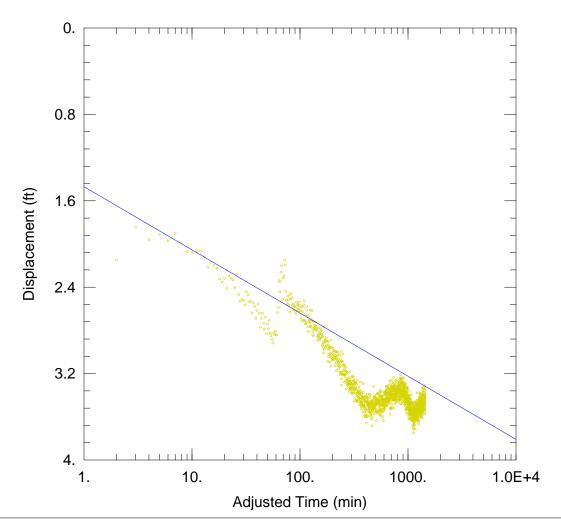
Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 9 Temperature (F)	PW Well No. 9 Water Level (ft bgs)	PW Well No. 9 Water Level (ft MSL)	PW Well No. 9 Drawdown (ft)	PW Well No. 9 Pump Rate (gpm)	PW Well No. 9 Specific Capacity (gpm/ft)	Comments	OW Well No. 4 Water Level (ft MSL)	OW Well No. 4 Drawdown (ft)
1/4/21 9:20 PM	660		73.80	353.64	987.37	3.43				991.76	0.26
1/4/21 10:20 PM	720		73.80	353.53	987.47	3.32				991.58	0.44
1/4/21 11:20 PM	780		73.82	353.64	987.36	3.43				991.65	0.36
1/5/21 12:20 AM	840		73.79	353.65	987.35	3.44				991.61	0.41
1/5/21 1:20 AM	900		73.79	353.55	987.45	3.34				991.57	0.45
1/5/21 2:20 AM	960		73.75	353.64	987.36	3.43				991.55	0.47
1/5/21 3:20 AM	1,020		73.82	353.70	987.30	3.49				991.61	0.40
1/5/21 4:20 AM	1,080		73.79	353.82	987.18	3.61				991.47	0.55
1/5/21 5:20 AM	1,140		73.75	353.72	987.28	3.51				991.47	0.55
1/5/21 6:20 AM	1,200		73.77	353.68	987.32	3.47				991.39	0.62
1/5/21 7:20 AM	1,260		73.74	353.73	987.27	3.52				991.41	0.60
1/5/21 8:20 AM	1,320		73.81	353.77	987.23	3.56				991.41	0.61
1/5/21 9:20 AM	1,380		73.84	353.74	987.26	3.53				991.48	0.53
1/5/21 10:20 AM	1,440		73.83	353.67	987.33	3.46				991.45	0.56
1/5/21 10:21 AM	1,441	0	73.82	353.61	987.40	3.40	9.0	2.65	Pump Stop	991.38	0.64
1/5/21 10:22 AM	1,442	1	73.82	352.64	988.36	2.43			Meter: 637,626.62 gallons	991.38	0.64
1/5/21 10:23 AM	1,443	2	73.73	352.35	988.65	2.14			Avg. Pump Rate: 9 gpm	991.33	0.69
1/5/21 10:24 AM	1,444	3	73.80	352.24	988.77	2.03				991.33	0.69
1/5/21 10:25 AM	1,445	4	73.77	352.24	988.76	2.03				991.32	0.69
1/5/21 10:26 AM	1,446	5	73.87	352.12	988.88	1.91				991.42	0.60
1/5/21 10:27 AM	1,447	6	73.95	352.08	988.92	1.87				991.41	0.61
1/5/21 10:28 AM	1,448	7	74.09	352.13	988.87	1.92				991.40	0.62
1/5/21 10:29 AM	1,449	8	74.25	352.09	988.92	1.88				991.36	0.66
1/5/21 10:30 AM	1,450	9	74.47	352.09	988.91	1.88				991.33	0.69
1/5/21 10:31 AM	1,451	10	74.61	352.01	988.99	1.80				991.43	0.59
1/5/21 10:32 AM	1,452	11	74.82	352.04	988.96	1.83				991.36	0.66
1/5/21 10:33 AM	1,453	12	75.02	351.99	989.01	1.78				991.36	0.65
1/5/21 10:34 AM	1,454	13	75.26	351.97	989.03	1.76				991.41	0.61
1/5/21 10:35 AM	1,455	14	75.45	352.02	988.98	1.81				991.37	0.64
1/5/21 10:36 AM	1,456	15	75.59	351.93	989.07	1.72				991.37	0.64
1/5/21 10:41 AM	1,461	20	76.29	351.90	989.10	1.69				991.39	0.63
1/5/21 10:46 AM	1,466	25	76.58	351.81	989.20	1.60				991.37	0.64
1/5/21 10:51 AM	1,471	30	76.84	351.85	989.15	1.64				991.43	0.59
1/5/21 11:06 AM	1,486	45	76.72	351.56	989.44	1.35				991.34	0.67
1/5/21 11:21 AM	1,501	60	76.36	351.52	989.49	1.31				991.39	0.62

Note: bgs = below ground surface Column Pipe Diameter = 1 1/4 inches MSL = Mean Sea Level Pump Setting = 360 ft

Horsepower = 1.5 HP EC=Electrical conductivity (mS/cm)

Legacy Hills Well No. 9 - Aquifer Test (January 4, 2021)

Date and Time	Time Since Pump Start (min)	Time Since Pump Stop (min)	PW Well No. 9 Temperature (F)	PW Well No. 9 Water Level (ft bgs)	PW Well No. 9 Water Level (ft MSL)	PW Well No. 9 Drawdown (ft)	PW Well No. 9 Pump Rate (gpm)	PW Well No. 9 Specific Capacity (gpm/ft)	Comments	OW Well No. 4 Water Level (ft MSL)	OW Well No. 4 Drawdown (ft)
1/5/21 11:36 AM	1,516	75	75.92	351.54	989.46	1.33				991.39	0.63
1/5/21 11:51 AM	1,531	90	75.56	351.41	989.59	1.20				991.42	0.60
1/5/21 12:06 PM	1,546	105	75.24	351.41	989.60	1.20				991.42	0.60
1/5/21 12:21 PM	1,561	120	74.99	351.38	989.62	1.17				991.38	0.63
1/5/21 12:51 PM	1,591	150	74.52	351.34	989.67	1.13				991.38	0.63
1/5/21 1:21 PM	1,621	180	74.17	351.36	989.64	1.15				991.47	0.55
1/5/21 1:51 PM	1,651	210	73.93	351.25	989.75	1.04				991.41	0.61
1/5/21 2:21 PM	1,681	240	73.76	351.37	989.64	1.16				991.44	0.58
1/5/21 3:21 PM	1,741	300	73.49	351.32	989.68	1.11				991.37	0.64
1/5/21 4:21 PM	1,801	360	73.31	351.22	989.78	1.01				991.42	0.60
1/5/21 5:21 PM	1,861	420	73.23	351.23	989.77	1.02				991.43	0.59
1/5/21 6:21 PM	1,921	480	73.13	351.14	989.86	0.93				991.40	0.62
1/5/21 7:21 PM	1,981	540	73.04	350.96	990.04	0.75				991.37	0.64
1/5/21 8:21 PM	2,041	600	72.98	350.97	990.03	0.76				991.42	0.60
1/5/21 9:21 PM	2,101	660	72.92	350.85	990.15	0.64				991.46	0.56
1/5/21 10:21 PM	2,161	720	72.89	350.80	990.20	0.59				991.47	0.55
1/5/21 11:21 PM	2,221	780	72.87	350.69	990.31	0.48				991.53	0.49
1/6/21 12:21 AM	2,281	840	72.88	350.69	990.31	0.48				991.49	0.53
1/6/21 1:21 AM	2,341	900	72.91	350.62	990.38	0.41				991.58	0.44
1/6/21 2:21 AM	2,401	960	72.86	350.50	990.50	0.29				991.56	0.46
1/6/21 3:21 AM	2,461	1020	72.86	350.59	990.41	0.38				991.52	0.49
1/6/21 4:21 AM	2,521	1080	72.83	350.57	990.43	0.36				991.55	0.47
1/6/21 5:21 AM	2,581	1140	72.83	350.52	990.48	0.31				991.64	0.38
1/6/21 6:21 AM	2,641	1200	72.87	350.59	990.42	0.38				991.56	0.45
1/6/21 7:21 AM	2,701	1260	72.87	350.49	990.51	0.28				991.65	0.37
1/6/21 8:21 AM	2,761	1320	72.84	350.44	990.56	0.23				991.76	0.26
1/6/21 8:55 AM	2,795	1354	72.83	350.46	990.54	0.25				991.70	0.31



Data Set: \...\PW 9.aqt

Date: 01/15/21 Time: 14:04:31

PROJECT INFORMATION

Company: Wet Rock Groundwater Services

Client: Lonestar Land Partners
Location: Blanco County
Test Well: Well No. 9
Test Date: 1-4-20

AQUIFER DATA

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

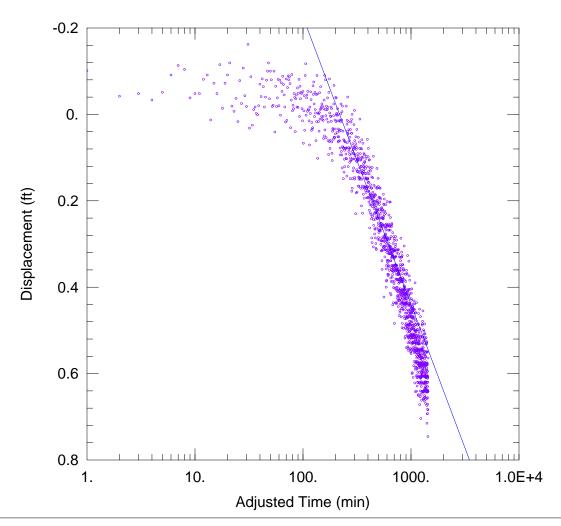
i dilipi	ing wono	
Well Name	X (ft)	Y (ft)
Well No. 9	0	0

SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

 $T = 542.8 \text{ ft}^2/\text{day}$



Data Set: \...\OW 4.aqt

Date: 01/15/21 Time: 14:02:58

PROJECT INFORMATION

Company: Wet Rock Groundwater Services

Client: Lonestar Land Partners
Location: Blanco County
Test Well: Well No. 9

Test Date: 1-4-20

AQUIFER DATA

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pu	mping vveils		Observation Wells					
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)			
Well No. 9	0	0	Well No. 4	1580	0			

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

 $T = 477.4 \text{ ft}^2/\text{day}$ S = 6.511E-5

Aquifer Test

Ex. Well No. 1



Legacy Hills Existing Well No. 1 - Aquifer Test (December 28, 2020)

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. 6 Water Level (ft MSL)	OW Well No. 6 Drawdown (ft)
12/28/20 10:18 AM	0		71.71	329.29	987.71	0.00			Pump Start	989.99	0.00
12/28/20 10:19 AM	1		72.14	332.56	984.44	3.27	11.8	3.61	Meter: 606,686 gallons	989.99	0.00
12/28/20 10:20 AM	2		72.51	333.16	983.84	3.87	12.5	3.23		989.97	0.02
12/28/20 10:21 AM	3		72.70	333.49	983.51	4.20	12.5	2.98		989.87	0.12
12/28/20 10:22 AM	4		72.88	333.64	983.36	4.35	12.7	2.92		989.90	0.09
12/28/20 10:23 AM	5		72.98	333.89	983.11	4.60	12.6	2.74		989.88	0.11
12/28/20 10:24 AM	6		73.07	334.05	982.95	4.76	12.5	2.63		989.90	0.10
12/28/20 10:25 AM	7		73.17	334.19	982.81	4.90	12.5	2.55		989.77	0.22
12/28/20 10:26 AM	8		73.19	334.33	982.67	5.04	12.6	2.50		989.79	0.20
12/28/20 10:27 AM	9		73.27	334.44	982.56	5.14	12.5	2.43		989.72	0.27
12/28/20 10:28 AM	10		73.28	334.49	982.51	5.20	12.6	2.42		989.74	0.25
12/28/20 10:29 AM	11		73.36	334.51	982.49	5.22	12.5	2.40		989.65	0.34
12/28/20 10:30 AM	12		73.31	334.66	982.35	5.36	12.5	2.33		989.63	0.36
12/28/20 10:31 AM	13		73.34	334.66	982.34	5.36	12.5	2.33		989.63	0.36
12/28/20 10:32 AM	14		73.37	334.76	982.24	5.47	12.5	2.29		989.56	0.43
12/28/20 10:33 AM	15		73.39	334.76	982.24	5.47	12.5	2.29	pH: 6.78/ EC: 2.96	989.61	0.39
12/28/20 10:38 AM	20		73.45	335.10	981.91	5.80	12.5	2.15		989.48	0.51
12/28/20 10:43 AM	25		73.46	335.25	981.75	5.96	12.6	2.12	pH: 6.75/ EC: 2.95	989.34	0.65
12/28/20 10:48 AM	30		73.45	335.39	981.61	6.10	12.5	2.05		989.22	0.77
12/28/20 10:53 AM	35		73.50	335.58	981.42	6.29	12.5	1.99		989.03	0.96
12/28/20 10:58 AM	40		73.50	335.65	981.35	6.36	12.5	1.97		989.03	0.96
12/28/20 11:03 AM	45		73.57	335.76	981.24	6.46	12.5	1.93	pH: 6.80/ EC: 2.96	988.92	1.07
12/28/20 11:18 AM	60		73.57	335.92	981.08	6.63	12.5	1.89	pH: 6.80/ EC: 2.95	988.78	1.21
12/28/20 11:33 AM	75		73.62	336.16	980.84	6.87	12.5	1.82	pH: 6.77/ EC: 2.96	988.50	1.49
12/28/20 11:48 AM	90		73.66	336.41	980.59	7.12	12.6	1.77		988.52	1.47
12/28/20 12:03 PM	105		73.67	336.60	980.40	7.30	12.5	1.71		988.26	1.73
12/28/20 12:18 PM	120		73.70	336.77	980.24	7.47	12.5	1.67	pH: 6.80/ EC: 2.95	988.06	1.93
12/28/20 12:48 PM	150		73.92	336.77	980.24	7.47	12.5	1.67		988.05	1.94
12/28/20 1:18 PM	180		73.98	337.09	979.91	7.80	12.5	1.60	pH: 6.93/ EC: 2.96	987.98	2.01
12/28/20 1:48 PM	210		73.96	337.16	979.84	7.87	12.5	1.59		987.77	2.22
12/28/20 2:18 PM	240		74.00	337.12	979.88	7.82	12.5	1.60	pH: 6.86/ EC: 2.94	987.78	2.21
12/28/20 3:18 PM	300		73.99	337.39	979.61	8.09				987.71	2.29
12/28/20 4:18 PM	360		74.03	337.52	979.48	8.22				987.50	2.49
12/28/20 5:18 PM	420		73.79	337.47	979.53	8.18				987.43	2.56
12/28/20 6:18 PM	480		73.82	337.63	979.37	8.34				987.27	2.72

MSL = Mean Sea Level

Note: bgs = below ground surface Column Pipe Diameter = 1 1/4 inches

Horsepower = 1.5 HP

Pump Setting = 380 ft EC=Electrical conductivity (mS/cm)

Legacy Hills Existing Well No. 1 - Aquifer Test (December 28, 2020)

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. 6 Water Level (ft MSL)	OW Well No. 6 Drawdown (ft)
12/28/20 7:18 PM	540		73.77	337.77	979.23	8.48				987.32	2.67
12/28/20 8:18 PM	600		73.80	337.88	979.12	8.58				987.13	2.86
12/28/20 9:18 PM	660		73.79	338.01	979.00	8.71				987.08	2.91
12/28/20 10:18 PM	720		73.83	338.03	978.97	8.74				986.93	3.06
12/28/20 11:18 PM	780		73.87	338.11	978.90	8.81				986.97	3.02
12/29/20 12:18 AM	840		73.87	338.14	978.86	8.85				986.96	3.04
12/29/20 1:18 AM	900		73.80	338.11	978.90	8.81				986.80	3.19
12/29/20 2:18 AM	960		73.81	338.06	978.94	8.77				986.79	3.20
12/29/20 3:18 AM	1,020		73.81	338.14	978.86	8.85				986.75	3.24
12/29/20 4:18 AM	1,080		73.84	338.19	978.81	8.90				986.69	3.30
12/29/20 5:18 AM	1,140		73.85	338.17	978.83	8.88				986.73	3.26
12/29/20 6:18 AM	1,200		73.86	338.26	978.74	8.97				986.66	3.33
12/29/20 7:18 AM	1,260		73.79	338.18	978.82	8.89				986.71	3.28
12/29/20 8:18 AM	1,320		73.83	338.23	978.77	8.93				986.63	3.36
12/29/20 9:18 AM	1,380		73.82	338.35	978.65	9.06				986.56	3.43
12/29/20 10:18 AM	1,440		73.86	338.35	978.65	9.06				986.52	3.47
12/29/20 10:22 AM	1,444	0	73.86	338.33	978.67	9.03	12.4	1.37	Pump Stop	986.53	3.46
12/29/20 10:23 AM	1,445	1	73.84	335.08	981.92	5.78			Meter: 624,651 gallons	986.54	3.45
12/29/20 10:24 AM	1,446	2	73.93	334.63	982.37	5.34			Avg. Pump Rate: 12.4 gpm	986.54	3.45
12/29/20 10:25 AM	1,447	3	73.99	334.41	982.59	5.11				986.54	3.45
12/29/20 10:26 AM	1,448	4	74.04	334.20	982.80	4.90				986.53	3.47
12/29/20 10:27 AM	1,449	5	74.09	333.86	983.14	4.57				986.59	3.40
12/29/20 10:28 AM	1,450	6	74.17	333.85	983.15	4.55				986.71	3.29
12/29/20 10:29 AM	1,451	7	74.23	333.58	983.42	4.28				986.64	3.36
12/29/20 10:30 AM	1,452	8	74.36	333.56	983.44	4.27				986.68	3.31
12/29/20 10:31 AM	1,453	9	74.53	333.48	983.52	4.19				986.71	3.28
12/29/20 10:32 AM	1,454	10	74.63	333.34	983.66	4.04				986.82	3.18
12/29/20 10:33 AM	1,455	11	74.70	333.14	983.86	3.85				986.86	3.13
12/29/20 10:34 AM	1,456	12	74.82	333.04	983.97	3.74				986.87	3.12
12/29/20 10:35 AM	1,457	13	74.87	333.00	984.00	3.70				986.90	3.09
12/29/20 10:36 AM	1,458	14	74.95	332.96	984.04	3.67				986.92	3.07
12/29/20 10:37 AM	1,459	15	75.04	332.92	984.08	3.62				986.94	3.05
12/29/20 10:42 AM	1,464	20	75.06	332.67	984.33	3.38				987.03	2.97
12/29/20 10:47 AM	1,469	25	75.06	332.45	984.55	3.16				987.19	2.80
12/29/20 10:52 AM	1,474	30	75.05	332.31	984.69	3.02				987.25	2.74

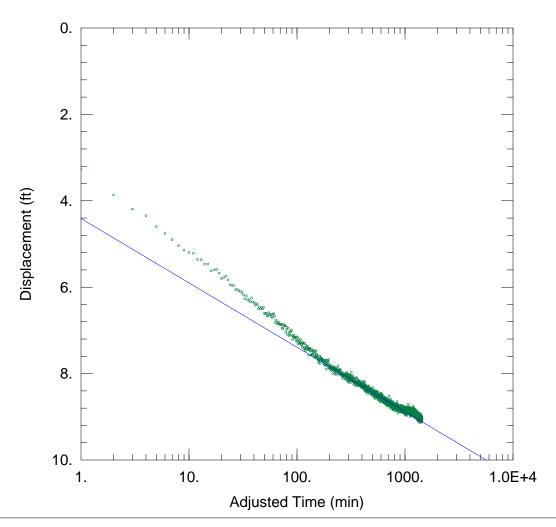
Note: bgs = below ground surface Column Pipe Diameter = 1 1/4 inches MSL = Mean Sea Level Pump Setting = 380 ft

Horsepower = 1.5 HP

EC=Electrical conductivity (mS/cm)

Legacy Hills Existing Well No. 1 - Aquifer Test (December 28, 2020)

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. 6 Water Level (ft MSL)	OW Well No. 6 Drawdown (ft)
12/29/20 10:57 AM	1,479	35	74.97	332.21	984.79	2.91				987.30	2.69
12/29/20 11:02 AM	1,484	40	74.87	332.05	984.95	2.76				987.36	2.63
12/29/20 11:07 AM	1,489	45	74.80	331.94	985.07	2.64				987.42	2.57
12/29/20 11:22 AM	1,504	60	74.54	331.70	985.30	2.41				987.63	2.36
12/29/20 11:37 AM	1,519	75	74.40	331.56	985.44	2.27				987.63	2.36
12/29/20 11:52 AM	1,534	90	74.30	331.46	985.55	2.16				987.74	2.25
12/29/20 12:07 PM	1,549	105	74.20	331.32	985.68	2.03				987.68	2.31
12/29/20 12:22 PM	1,564	120	74.16	331.32	985.68	2.03				987.88	2.11
12/29/20 12:52 PM	1,594	150	74.00	331.10	985.90	1.81				987.86	2.13
12/29/20 1:22 PM	1,624	180	74.01	331.03	985.97	1.73				987.94	2.05
12/29/20 1:52 PM	1,654	210	73.95	331.01	985.99	1.72				987.98	2.01
12/29/20 2:22 PM	1,684	240	73.89	330.91	986.09	1.62				988.08	1.92
12/29/20 3:22 PM	1,744	300	73.78	330.79	986.21	1.49				988.15	1.84
12/29/20 4:22 PM	1,804	360	73.71	330.74	986.26	1.45				988.29	1.70
12/29/20 5:22 PM	1,864	420	73.64	330.66	986.34	1.37				988.33	1.66
12/29/20 6:22 PM	1,924	480	73.64	330.55	986.45	1.25				988.45	1.54
12/29/20 7:22 PM	1,984	540	73.58	330.43	986.57	1.13				988.45	1.54
12/29/20 8:22 PM	2,044	600	73.63	330.36	986.64	1.06				988.61	1.38
12/29/20 9:22 PM	2,104	660	73.58	330.29	986.71	0.99				988.65	1.35
12/29/20 10:22 PM	2,164	720	73.54	330.33	986.67	1.03				988.84	1.16
12/29/20 11:22 PM	2,224	780	73.56	330.23	986.77	0.94				988.73	1.26
12/30/20 12:22 AM	2,284	840	73.52	330.23	986.77	0.94				988.81	1.18
12/30/20 1:22 AM	2,344	900	73.54	330.12	986.88	0.83				988.83	1.16
12/30/20 2:22 AM	2,404	960	73.50	330.05	986.95	0.75				988.94	1.05
12/30/20 3:22 AM	2,464	1020	73.56	329.98	987.02	0.69				988.93	1.06
12/30/20 4:22 AM	2,524	1080	73.53	329.98	987.02	0.68				989.10	0.89
12/30/20 5:22 AM	2,584	1140	73.47	329.80	987.20	0.51				989.07	0.92
12/30/20 6:22 AM	2,644	1200	73.51	329.88	987.12	0.58				989.16	0.83
12/30/20 7:22 AM	2,704	1260	73.52	329.79	987.22	0.49				989.14	0.85
12/30/20 8:22 AM	2,764	1320	73.50	329.74	987.26	0.45				989.19	0.80
12/30/20 9:22 AM	2,824	1380	73.51	329.78	987.22	0.49				989.33	0.66
12/30/20 10:22 AM	2,884	1440	73.49	329.75	987.25	0.46				989.25	0.74



WELL TEST ANALYSIS

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

Date: 01/19/21 Time: 14:14:06

PROJECT INFORMATION

Company: Wet Rock Groundwater Services

Client: Lonestar Land Partners Location: Blanco County Test Well: Ex. Well No. 1

Test Date: 12-28-20

AQUIFER DATA

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

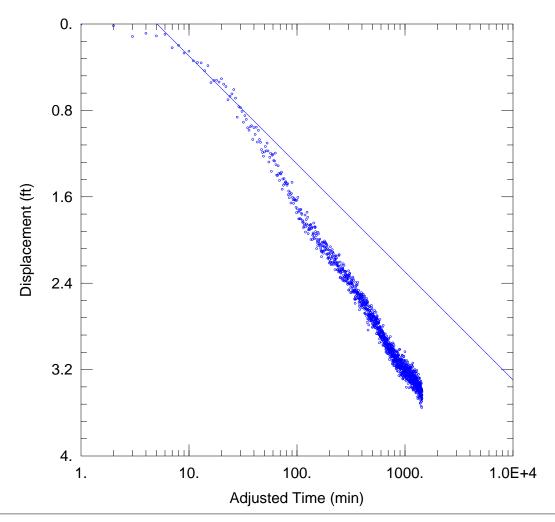
ı anıpı	119 110110	
Well Name	X (ft)	Y (ft)
Ex Well 1	0	0

SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

 $T = 293.5 \text{ ft}^2/\text{day}$



WELL TEST ANALYSIS

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

Date: 01/15/21 Time: 14:28:33

PROJECT INFORMATION

Company: Wet Rock Groundwater Services

Client: Lonestar Land Partners Location: Blanco County Test Well: Ex. Well No. 1

Test Date: 12-28-20

AQUIFER DATA

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pump	ing vveiis		Observation vveils								
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)						
Ex Well 1	0	0	Well No. 6	622	0						

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

 $T = 437.5 \text{ ft}^2/\text{day}$ S = 8.914E-6

Appendix D

Well Efficiency Calculation





$\overline{\mathbf{W}_{\mathbf{R}}}$

Wet Rock Groundwater Services, L.L.C.

Groundwater Specialists

TBPG Firm No: 50038
317 Ranch Road 620 South, Suite 203
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 = 11.9 gpm / 0.85 ft. = 13.93 gpm/ft.

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, = 1.99 X 10⁻⁴

r = radius of well, in ft.

Theoretical Specific Capacity:
$$24,760 = 10.38$$

$$264 \log \frac{(0.3)(24,760)(1.03)}{(0.1875)^2(0.000199)}$$

Efficiency = Actual Specific Capacity / Theoretical Specific Capacity = 13.93 / 10.38 = 134.2%



$\overline{\mathbf{W}_{\mathbf{R}}}$

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Well Efficiency Calculations Well No. 3

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 = 11.9 gpm / 1.01 ft. = 11.75 gpm/ft.

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, = 2.42 X 10⁻⁴

r = radius of well, in ft.

Theoretical Specific Capacity:
$$20,730 = 8.82$$

 $264\log \frac{(0.3)(20,730)(1.09)}{(0.1875)^2(0.000242)}$

Efficiency = Actual Specific Capacity / Theoretical Specific Capacity = 11.75 / 8.82 = 133.22%



(W_R)

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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 = 11.9 gpm / 6.12 ft. = 1.94 gpm/ft.

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

 $S = Storage Coefficient, = 4.09 \times 10^{-4}$

r = radius of well, in ft.

Theoretical Specific Capacity:
$$3,820.6$$
 = 1.83 $264\log \frac{(0.3)(3,820.6)(1.00)}{(0.1875)^2(0.000409)}$

Efficiency = Actual Specific Capacity / Theoretical Specific Capacity = 1.94 / 1.83 = 106.01%



$\mathbf{W}_{\mathbf{R}}$

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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 = 11.9 gpm / 5.95 ft. = 2.00 gpm/ft.

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, = 5.73 X 10⁻⁵

r = radius of well, in ft.

Theoretical Specific Capacity:
$$4,546$$
 = 1.95 $264\log \frac{(0.3)(4,546)(1.01)}{(0.1875)^2(0.0000573)}$

Efficiency = Actual Specific Capacity / Theoretical Specific Capacity = 2.00 / 1.95 = 102.56%



$\overline{\mathbf{W}_{\mathbf{R}}}$

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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 = 13.4 gpm / 4.5 ft. = 2.98 gpm/ft.

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, = 2.54 X 10⁻⁵

r = radius of well, in ft.

Theoretical Specific Capacity:
$$5,658.4 = 2.31$$

$$264 log \frac{(0.3)(5,658.4)(1.01)}{(0.1875)^2 (0.0000254)}$$

Efficiency = Actual Specific Capacity / Theoretical Specific Capacity = 2.98 / 2.31 = 129.00%



(W_R)

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www.wetrockgs.com

Well Efficiency Calculations Well No. 9

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 = 9.0 gpm / 3.4 ft. = 2.65 gpm/ft.

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, = 5.61 X 10⁻⁵

r = radius of well, in ft.

Theoretical Specific Capacity:
$$4,061.0$$
 = 1.75 $264\log \frac{(0.3)(4,061)(1.00)}{(0.1875)^2(0.0000561)}$

Efficiency = Actual Specific Capacity / Theoretical Specific Capacity = 2.65 / 1.75 = 151.43%

Ex. Well No. 1



$\overline{\mathbf{W}_{\mathbf{R}}}$

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Groundwater Specialists

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Well Efficiency Calculations Ex. 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 = 12.4 gpm / 9.03 ft. = 1.37 gpm/ft.

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, = 8.91 X 10⁻⁶

r = radius of well, in ft.

Theoretical Specific Capacity:
$$2,195.8 = 0.89$$

$$264 log \frac{(0.3)(2,195.8)(1.00)}{(0.1875)^2 (0.00000891)}$$

Efficiency = Actual Specific Capacity / Theoretical Specific Capacity = 1.37 / 0.89 = 153.93%

Appendix E

Water Quality Report



Water Quality



Email information for report date: 12/23/20 10:08

D040547

Apex Drilling

Attn: Michael Becker apexdrilling.becker@yahoo.com

PO Box 867 Marble Falls, TX 78654

****Attention Austin Laboratory Clients****
Aqua-Tech is excited to announce that our
Austin Laboratory is expanding and moving to a
new location!

We will close our current Austin Laboratory location on Friday, October 23, 2020 at 12:00 p.m. to begin the moving process and will re-open at our new location on Monday, October 26 at 8:00 a.m.

Austin Laboratory address as of October 26, 2020: 3512 Montopolis Drive Austin, TX 78744

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

CORPORATE OFFICE

635 Phil Gramm Boulevard Bryan, TX 77807

Phone: (979) 778-3707 Fax: (979) 778-3193



AUSTIN OFFICE

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

TCEQ DW Lab ID TX 239

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 required by the State of Texas.

DWP Accreditation 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.

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

June M. Brien

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.

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Page 1 of 4 D040547_1 ATL 110720 FIN_ls 12 23 20 1008

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Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

12/23/20

D040547

10:08

LEGACY HILLS NO1			12/16/20 12:00 by CLI 12/16/20 15:00 by Chr			<i>Type</i> Grab		<i>Matrix</i> Drinki	ng Water	C-O-C # 40547-8	
Lab ID# D040547-01	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	12/16/20 17:15 KT	SM9223 B 2004	M122	2559 NEL
Escherichia coli (E.coli)	Absent	N/A		N/A	N/A	N/A	Austin	12/16/20 17:15 KT	SM9223 B 2004	M122	2559 NEL

				Micro	biologi	cal Analyses - Quality (Log10 Co	omparison		
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Range	Control Limit	Batch	
Escherichia col	i (E.coli) - SM9	223 B 2004												Austin
Blank	Absent	N/A		N/A	N/A	12/16/20 17:15 KT							M122559	
Total Coliforms	- SM9223 B 20	04												Austin
Blank	Absent	N/A		N/A	N/A	12/16/20 17:15 KT							M122559	
					0	la Duamanatian Cumman					F. t.			

		Sample Prepar	ation Sumr	mary					External Dilution	
Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	Factor	Batch
D040547-01										
Escherichia coli (E.coli) Total Coliforms	SM9223 B 2004 SM9223 B 2004	12/16/20 17:04 KT 12/16/20 17:04 KT	Austin Austin	A A	100 100	mL mL	100 100	mL mL	1 1	M122559 M122559

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AQUA-TECH C	hain-of-Custody	and Analysis R	equest		£3.88	ACC 19	A	qua-Teo	ch Labo	ratories	, inc.		Work Order / C-O-C
Client /Project:			~~~		-		3512	Austin Montopol	is Driva	Bry			40547-8
Name Apex Drilli		DW - Drinking Water NP - Non-Potable Water	(+) Co P - Pla	ontainer Type astic	T10	1704371	Αu	istin, TX 78 12-301-95	744	635 Phil Gr Bryan, T 979.778	X 77807	- Control of the Cont	Page 1 of 2
Address -100 Spanish O State City Spicewood State	ak Trail	S - Solid CM - Custody Maintained	G - GI T - Te		Т	X239 Te	est resur	rs meet all act	stated other	tification requ	rements un	less	V-0023 R03
Spicewood State	TX Zip 78669	CTU - Custody Maintained CTU - Custody Transfer Unb CT - Corrected Temperatur	roken			,	4		Sample				
Email 030-693-6770	for Part of the state of the st	SUB - Subcontracted Analys	is		Relinquished	1 //	2				ampler D	ate 7	/6-20 🗆 Iced/Refrig
Tech's fields of accreditation will be subcontracted to a NELAC analytes not requiring accreditation will be analyzed by a compcolumn. The client approves all method modifications document	pendial method if a sec-is	editation. Analytes requiring a cei method. Clients will be notified of s required, the client will note the ct lab. A current list of Aqua-Teol	tified method that i f the subcontract la	ab's details. Other			<u> </u>	Physics accommode and		A	lient	me	Custody Sealed
Client Comments:	* Preservatives	Rece	ipt in Lab		Relinquished		***************************************					ate	См/сти
Account of the second of the s	1 < 6 °C (unfrozen)	Cooler ID :	OF I	<u>ک</u> م	by (print & sign)				1		TL Field Tir	ne	
	2 H2SO4	Temperature (°C):	39/39	- \(\delta \rightarrow \)	Received by				MEE	По	ient Da	ite	CM / CTU
	3 HCI	read / CT	. 1/ 3	1	(print & sign)			and the second second	referred and other		TL Field Tin	ne	Псм/сти
-	4 HNO3	Preservation Correct ?	YES (NO)	YES NO	Relinquished	and the state of t	and the second s			CI	ient Da	te	Iced / Refrig
	5 Na2S2O3	Post Preservatives ?	(YES NO	YES NO	by (print & sign)	ă.				A1	'L Field Tin	ne	CM / CTU /
	6 NaOH	Thermometer ID : ()	764481	0	Received by	ch-	· ·			***************************************	Dai	te 7 / 1	Cond Good
-	Lab 075470	American III	155987		(print & sign)	<u>chivis</u>	$\uparrow \uparrow \epsilon$	2 Tor	MN	Z La	Tim		O/ O Liced/Refrig D CM/CTU
Field Sample ID	Lab U 15 9 1 0 mments Start	End	Composit	e Sample		Container	·(s)		LAB	USE ONI	Y BEL	OW (ii	itiale A
(record field data for each sample in space below)	Date Time	Date Time	Type	Matrix	Bottle Count	Volume (Size in L)	Type (+)	Preserv- ative(s) *	Cooler ID	T T	m 1	MODK	seebelow
LEGACY HILLS #1	12-16-20 12,00		Grab	DW	1	0.12	StP	1, 5	c/f	CONTRACTOR	l-commence of the commence of	Sample	3 C C C C C C C C C C C C C C C C C C C
Analysis Requested & Comments:	Total Coliform F	P/A							D 0	4054	To a second	01	
LEGACY HILLS #1	12-16-20/12:00			DW	1		P	1	1 A	TO ANNE THE PROPERTY OF THE PR		Sample	
Analysis Requested & Comments: Sec Attacted		1, Cond, F, F	e, 1003					- Jac	clt_	A N T A S	2-0		Ar Labor
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			Marie Carlotte Commence	makes have commenced property and provided			\dashv						MACON TO SERVICE STATE OF THE
											Sa	ample	
Analysis equested &	and the second s						-+					-	

40547-8

y Aquifer to provide adequate drinking water. Upon cor The water quality from each well will need to be assessed sample will need to be collected and analyzed for the follo

- 0

- Nitrate (as nitrogen)
- Manganese
- otal hardress
- Total Dissolved Solids (DS)
- Presence/absence of total coliform bacteria

have any questions please feel free to call me at 512-773-,

Email information for report date: 1/11/21 16:11

D040548

Apex Drilling

Attn: Michael Becker apexdrilling.becker@yahoo.com

PO Box 867 Marble Falls, TX 78654

****Attention Austin Laboratory Clients****
Aqua-Tech is excited to announce that our
Austin Laboratory is expanding and moving to a
new location!

We will close our current Austin Laboratory location on Friday, October 23, 2020 at 12:00 p.m. to begin the moving process and will re-open at our new location on Monday, October 26 at 8:00 a.m.

Austin Laboratory address as of October 26, 2020: 3512 Montopolis Drive Austin, TX 78744

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

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June M. Brien, Technical Director

June M. Brien

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Analytical Report

Apex Drilling

Report Printed:

1/11/21

D040548

16:11

LEGACY HILLS #1			2/16/20 12:00 by CLIE 2/16/20 15:00 by Chris			<i>Type</i> Grab		<i>Matrix</i> Drinkir		-O-C # 0547-8	
Lab ID# D040548-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
Total Dissolved Solids	2620	mg/L		25.0	100	100	Bryan	12/18/20 18:55 MRH	SM2540 C 2011	M122657	NEL
Nitrate as N (NO3N)	0.0356	mg/L			0.0200	0.0200	Calc	12/21/20 11:31 JLL	SM4500-NO3-F 2011	[CALC]	NEL
Nitrite as N	<0.01	mg/L	MS-01	0.002	0.002	0.01	Austin	12/18/20 11:00 JLL	SM4500 NO2- B 2011	M122640	NEL
Nitrate/Nitrite as N	0.04	mg/L		0.02	0.02	0.02	Bryan	12/21/20 11:31 EMT	SM4500-NO3-F 2011	M122701	ANR
Total Hardness (EDTA) as CaCO3	1830	mg/L		1.00	25.0	25.0	Bryan	12/21/20 18:45 MRH	SM2340 C 2011	M122748	NEL
Fluoride	2.22	mg/L		0.04	0.04	0.10	Bryan	12/17/20 19:30 MRH	SM4500-F C 2011	M122508	NEL
pH, Lab	7.3	S.U.	Hold-03		N/A	N/A	Austin	12/21/20 08:50 KT	SM4500-H+ B 2011	M122698	DWP
Temperature @ pH Analysis	20.3	Deg. C			N/A	N/A	Austin	12/21/20 08:50 KT	SM4500-H+ B 2011	M122698	DWP
Specific Conductance (adjusted to 25.0°C)	3420	uS/cm		2.00	5.00	5.00	Bryan	01/05/21 14:30 CJO	SM2510 B 2011	M123224	DWP,NEL
Metals (Total)											
Iron	0.095	mg/L		0.002	0.002	0.010	Bryan	12/23/20 16:24 PNS	EPA 200.7 R4.4	M122737	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.
MS-01	The MS and/or MSD recovery was outside acceptance limits. Investigation concludes it is a sample- specific matrix effect and the batch was accepted based on acceptable LCS and /or LCSD recovery.
RPD-02	RPD was not calculated in LIMS due to one or both of the sample / duplicate pair being less than the MRL.

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Report Printed:

Apex Drilling

1/11/21 16:11 D040548

General Chemistry - Quality Control RPD Spike Source MDL SQL %R %R Limits RPD Units Result Notes Analyzed Batch Amount Result Limit Fluoride - SM4500-F C 2011 Bryan 12/17/20 19:30 MRH 0.428 2012178 Initial Cal Check 0.43 mg/L 101 90 - 110 Blank < 0.10 0.04 12/17/20 19:30 MRH M122508 mg/L 0.10 LCS 0.81 0.04 0.10 0.799 101 90 - 110 M122508 mg/L 12/17/20 19:30 MRH LCS Dup 0.82 0.04 0.10 12/17/20 19:30 MRH 0.799 102 90 - 110 6.23 M122508 mg/L 0.739 Matrix Spike 2.69 mg/L 0.04 0.10 12/17/20 19:30 MRH 0.799 1.92 96.3 78.1 - 125 M122508 Matrix Spike Dup 2.72 mg/L 0.04 0.10 12/17/20 19:30 MRH 0.799 1.92 100 78.1 - 125 3.82 5.72 M122508 MRL Check 0.10 mg/L 0.04 0.10 12/17/20 19:30 MRH 0.0999 98.4 73.4 - 118 M122508 Nitrate/Nitrite as N - SM4500-NO3-F 2011 Bryan 2012230 Initial Cal Check 1.40 mg/L 12/21/20 11:31 EMT 1.40 100 90 - 110 Low Cal Check 0.02 mg/L 12/21/20 11:31 EMT 0.0200 110 70 - 130 2012230 Blank < 0.02 0.02 0.02 M122701 12/21/20 11:31 EMT mg/L LCS 0.500 98.8 0.49 mg/L 0.02 0.02 12/21/20 11:31 EMT 91.3 - 109 M122701 LCS Dup 0.50 0.02 0.02 12/21/20 11:31 EMT 0.500 100 6.8 M122701 mg/L 91.3 - 109 1.30 Matrix Spike 1.97 0.02 0.02 12/21/20 11:31 EMT 0.500 1.45 105 M122701 mg/L 94.7 - 117 Matrix Spike Dup 1.96 mg/L 0.02 0.02 12/21/20 11:31 EMT 0.500 1.45 102 94.7 - 117 3.01 8.65 M122701 Nitrite as N - SM4500 NO2- B 2011 Austin Blank 0.002 12/18/20 11:00 JLL M122640 < 0.01 mg/L 0.01 LCS 0.08 mq/L 0.002 0.01 12/18/20 11:00 JLL 0.0800 103 90 - 110 M122640 LCS Dup 0.08 mg/L 0.002 0.01 12/18/20 11:00 JLL 0.0800 103 90 - 110 0.00 8.12 M122640 Matrix Spike < 0.01 mg/L J, MS-01 (0.005) 0.002 0.01 12/18/20 11:00 JLL 0.0800 < 0.01 6.06 70.6 - 117 M122640 Matrix Spike 0.18 mq/L MS-01 0.007 0.03 12/18/20 11:00 JLL 0.267 < 0.03 67.7 70.6 - 117 M122640 Matrix Spike 0.58 mg/L MS-01 0.02 0.08 12/18/20 11:00 JLL 0.667 < 0.08 86.6 70.6 - 117 M122640 < 0.01 Matrix Spike Dup < 0.01 J, MS-01 (0.005) 0.002 0.01 12/18/20 11:00 JLL 0.0800 6.06 70 6 - 117 0.00 8.18 M122640 mg/L Matrix Spike Dup 0.18 MS-01 0.007 0.03 12/18/20 11:00 JLL 0.267 < 0.03 66.3 70.6 - 117 1.97 8.18 M122640 mg/L Matrix Spike Dup MS-01 0.02 0.08 < 0.08 86.1 8.18 M122640 0.57 mg/L 12/18/20 11:00 JLL 0.667 70.6 - 117 0.510 pH, Lab - SM4500-H+ B 2011 Austin 7.5 Std Units 7.4 M122698 Duplicate 12/21/20 08:50 KT 1.07 1.18 Reference 6.9 Std Units 12/21/20 08:50 KT 6.86 101 95 - 105 M122698 Reference Std Units 9.18 100 95 - 105 M122698 9.2 12/21/20 08:50 KT Reference 6.9 Std Units 12/21/20 08:50 KT 6.86 101 95 - 105 M122698

12/21/20 08:50 KT

9 18

101

95 - 105

93

Std Units

Reference

M122698

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Analytical Report

Apex Drilling

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Bryan

General Chemistry - Quality Control Spike **RPD** Source MDL SQL %R %R Limits RPD Units Batch Result Notes Analyzed Amount Result Limit Specific Conductance (adjusted to 25.0°C) - SM2510 B 2011 Bryan 01/05/21 14:30 CJO 484 2101024 Initial Cal Check 513 uS/cm 106 90 - 110 Blank <2.00 uS/cm 2.00 2.00 01/05/21 14:30 CJO M123224 Duplicate 829 uS/cm 2.00 2.00 01/05/21 14:30 CJO 824 0.605 2 M123224 LCS 1360 uS/cm 2.00 2.00 01/05/21 14:30 CJO 1410 96.1 90 - 110 M123224 Total Dissolved Solids - SM2540 C 2011 Bryan M122657 Blank <25.0 mg/L 25.0 25.0 12/18/20 18:55 MRH 100 Duplicate 596 mg/L 100 12/18/20 18:55 MRH 596 0.00 9.13 M122657 440 100 100 500 88.0 81 - 121 M122657 Reference mg/L 12/18/20 18:55 MRH Total Hardness (EDTA) as CaCO3 - SM2340 C 2011 Bryan 2012237 54.4 98.3 85 - 115 Initial Cal Check 53.5 mg/L 12/21/20 18:45 MRH M122748 Blank <1.00 mg/L 1.00 1.00 12/21/20 18:45 MRH Duplicate 10.9 1.00 1.00 11.9 8.70 9.52 M122748 mg/L 12/21/20 18:45 MRH LCS 102 1.00 1.00 102 90 - 110 M122748 mg/L 12/21/20 18:45 MRH 100 LCS Dup 99.0 1.00 1.00 12/21/20 18:45 MRH 100 99.0 90 - 110 2.96 6.47 M122748 mg/L M122748 Matrix Spike 110 mg/L 1.00 1.00 12/21/20 18:45 MRH 100 11.9 98.0 87.6 - 111 12/21/20 18:45 MRH MRL Check 4.95 mg/L 1.00 1.00 4.00 124 70 - 130 M122748 Metals (Total) - Quality Control Spike Source **RPD** MDL %R %R Limits RPD Result Units Notes SQL Analyzed Batch Limit Amount Result Iron - EPA 200.7 R4.4 Bryan < 0.010 0.002 0.010 12/23/20 15:28 PNS M122737 Blank mg/L LCS 0.002 94.7 M122737 0.947 mg/L 0.010 12/23/20 15:31 PNS 1.00 84.5 - 115.4 LCS Dup 0.967 0.002 0.010 12/23/20 15:34 PNS 1.00 96.7 2.10 20 M122737 mg/L 84.5 - 115.4 20 Duplicate J. RPD-02 (0.003) 0.002 M122737 < 0.010 mg/L 0.010 12/23/20 15:38 PNS < 0.010 Matrix Spike 0.940 0.002 0.010 12/23/20 15:41 PNS 1.00 0.002 94.0 69.5 - 130.4 M122737 mg/L **Preparation Procedures - Quality Control** RPD Spike Source Result Units Notes MDL SOL Analyzed %R %R Limits RPD Batch Amount Result Limit

Turbidity - SM2130 B 2011

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Analytical Report

Apex Drilling

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D040548

		Sample Prepa	aration Sum	mary					External Dilution	
Sample	Method	Prepared	Lab	Bottle	e Initial	Units	Final	Units	Factor	Batch
D040548-01										
Fluoride	SM4500-F C 2011	12/17/20 19:30 MRH	Bryan	Α	25.0	mL	25.0	mL	1	M122508
Iron	EPA 200.7 R4.4	12/21/20 14:50 BLC	Bryan	С	10.0	mL	10.2	mL	1	M122737
Nitrate/Nitrite as N	SM4500-NO3-F 2011	12/21/20 9:23 EMT	Bryan	D	10.0	mL	10.0	mL	1	M122701
Nitrite as N	SM4500 NO2- B 2011	12/18/20 11:00 JLL	Austin	Е	25.0	mL	25.0	mL	1	M122640
pH, Lab	SM4500-H+ B 2011	12/21/20 8:50 KT	Austin	Е	50.0	mL	50.0	mL	1	M122698
Sample Acidified to pH<2 in Lab	N/A	12/16/20 15:38 CTT	Bryan	D	1.00	mL	1.00	mL	1	M122537
Specific Conductance (adjusted to 25.0	°C) SM2510 B 2011	1/5/21 14:30 CJO	Bryan	Α	20.0	mL	50.0	mL	1	M123224
Temperature @ pH Analysis	SM4500-H+ B 2011	12/21/20 8:50 KT	Austin	Е	50.0	mL	50.0	mL	1	M122698
Total Dissolved Solids	SM2540 C 2011	12/18/20 18:55 MRH	Bryan	Α	25.0	mL	100	mL	1	M122657
Total Hardness (EDTA) as CaCO3	SM2340 C 2011	12/21/20 18:45 MRH	Bryan	С	2.00	mL	50.0	mL	1	M122748
Turbidity	SM2130 B 2011	12/21/20 12:58 BLC	Bryan	С	10.0	mL	10.0	mL	1	M122722
D040548-01RE1										
Sample Acidified to pH<2 in Lab	N/A	12/16/20 15:38 CTT	Bryan	С	100	mL	100	mL	1	M122536

AQUA-TECH LABORATORIES, INC.	Chain-of-Custody	and Analys	is Reque	st		CERT	A		ch Labo	ratorie	s, Inc.	Work Order / C-O-C
Client /Project:		3			1		3512	Austin Montopol	is Drive		yan	40547-8
Name Apex D	rilling	DW - Drinking Wate	Pr	(+) Container Type	1 700	MATOR .		istin, TX 78		Bryan, 1	iramm Blvd. FX 77807	1
Address -100 Spanish	Oak Trail	NP - Non-Potable \ S - Solid	Vater	P - Plastic G - Glass		704371		12-301-95			78.3707 uirements unless	Page of 4
Address -100 Spanish City Spicewood State	Oak Trail TX Zip 78669	CM - Custody Main		T - Teflon©	17	(239		eresteates en la companya	stated other	wise.	urements unless	V-0023 R03
Phone / 830-693-6770	ä		mperature				<u> </u>		Sample	Custody		
By relinquishing the sa	mples listed below to Aqua-Tech, the cli	SUB - Subcontracte	-		Relinquished by	1/1/	2				Sampler Date	7-16-70 🗆 Iced/Refrig
Tech's fields of accreditation will be subcontracted to a NE	AC cortified lob that is a selfect for the	editation. Analytes requir	ing a certified metho	od that is not within Aqua-	(print & sign)	VI	51	Assertance Control			ATL Field Time	/ 5:00 Custody Sealed
analytes not requiring accreditation will be analyzed by a co- column. The client approves all method modifications docu	mented by Aqua-Tech or the subcontrac	is required, the client will ct lab. A current list of A	note the method in	the "Analysis Requested"	Received by	1	m				Client Date	lced / Refrig
Client Comments:	other methods are available on red	quest.	dea recus MEDAC	neids of accreditation and	(print & sign)						ATL Field Time	См/сти
Chefic Confinents;	* Preservatives		Receipt in L	ab	Relinquished by						Client Date	lced / Refrig
	1 < 6 °C (unfrozen)	Cooler	ID: OLT	L 67	(print & sign)				WEE.	100	ATL Field Time	Псм/сти
	2 H2SO4	Temperature ((c): 3.9/3	39 10	Received by				4		Date Date	Iced / Refrig
	3 HCI	read /	СТ 3- 1/	1	(print & sign)			- and the second second	representative		ATL Field Time	cm/ctu
	4 HNO3	Preservation Corre	ect ? YES NO	YES NO	Relinquished	- Andrews	and the same of			П	Date Date	Iced / Refrig
	5 Na2S2O3	Post Preservative	es? YES NO	YES NO	by (print & sign)	and the second s				water	Time	CM/CTU/
	6 NaOH	Thermometer	ID: ()764	4-8-D		d.	لمدررو				Date	sealed Cond Good
	7	pH Paper	ID: 07550	127	Received by (print & sign)	chvis	+16	tou	110	2 L	Time	/ L W/ CO Diced/Refrig
	Lab 075470	4	- IV	.0 :		<u> </u>	711	- 101	IVIVI		ab I S	ПО Дем/сти
en and an	Comments	·										
Field Countries	04-4					Containe	-					
rieid Sample IU	Start	End				Comaine	r(s)		s IAR	LISE ON	IVDELOW	11 1:
Field Sample ID (record field data for each sample in space below		_ 1		posite Sample ype Matrix	Bottle	Volume	Type	Preserv-		USE ON	T 00 18/01	DIE VIII I
(record field data for each sample in space below	Date Time	Date	Time T	ype Matrix	Count	Volume (Size in L)	Type (+)	ative(s) *	Cooler ID		WOI S ORD	ersee below
(record field data for each sample in space below LEGALY 1-1/15 H/ Analysis		Date	Time T			Volume	Type		Cooler ID	pH Check	WOI ORD Sam	RK Seebelow
(record field data for each sample in space below	Date Time	Date	Time T	ype Matrix	Count	Volume (Size in L)	Type (+)	ative(s) *	Cooler ID	pH Check	WOI S ORD	RK Seebelow
(record field data for each sample in space below LEGALY I-I/15 IE/ Analysis Requested & Comments:	Date Time	Date	Time T	ype Matrix Prab DW	Count	Volume (Size in L) 0.12	Type (+)	ative(s) *	Cooler ID	pH Check	WOI ORD	RK SEE BELOW
(record field data for each sample in space below LEGALY I-L/15 #/ Analysis Requested & Comments: LEGACY I-L/15 #/	Date Time 12-16-20 12:00 Total Coliform F	Date P/A	Time T	ype Matrix Grab DW	Count	Volume (Size in L)	Type (+)	ative(s) *	Cooler ID	pH Check	WOI ORD Sam	RK SEE BELOW Phe A
(record field data for each sample in space below LEGALY I-L/15 #/ Analysis Requested & Comments: LEGACY I-L/15 #/	Date Time 12-16-20 12:00 Total Coliform F	Date P/A	Time T	ype Matrix Strab DW DW DW DW DW	Count	Volume (Size in L) 0.12	Type (+)	ative(s) *	Cooler ID	pH Check	WOI ORD	RK SEE BELOW Phe A
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(record field data for each sample in space below LEGACY I-US #/ Analysis Requested & Comments: LEGACY I-US #/ Analysis Requested & Comments: Analysis equested & Comments:	Date Time 12-16-20 12:00 Total Coliform F	Date P/A	Time T	ype Matrix Strab DW DW DW DW DW DW DW DW DW DW	Count	Volume (Size in L) 0.12	Type (+)	ative(s) *	Cooler ID	pH Check	Samp Samp Samp	RKERSEE BELOW PRESE DELOW A BELLEVIEW BE

40547-8

. Well numbers correspond to Attachment I

y Aquifer to provide adequate drinking water. Upon cor The water quality from each well will need to be assessed sample will need to be collected and analyzed for the follo

- Nitrate (as nitrogen)
- Manganese
- ota
- Total Dissolved Solids (DS)
- Presence/absence of total coliform bacteria

have any questions please feel free to call me at 512-773-,

Page 1 of 1

3



AQU1-G

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

TABLE OF CONTENTS

947924

This report consists of this Table of Contents and the following pages:

Report Name	<u>Description</u>	<u>Pages</u>
948946_r03_03_ProjectResults	Ana-Lab Project P:948946 C:AQU1 Project Results t:304	2
948946_r03_06_A_ProjectTRRP	Ana-Lab Project P:948946 C:AQU1 Project TRRP Results Report for Class A	2
948946_r03_06_I_ProjectTRRP	Ana-Lab Project P:948946 C:AQU1 Project TRRP Results Report for Class I	2
948946_r03_06_M_ProjectTRRP	Ana-Lab Project P:948946 C:AQU1 Project TRRP Results Report for Class M	2
948946_r10_05_ProjectQC	Ana-Lab Project P:948946 C:AQU1 Project Quality Control Groups	2
948946_r99_09_CoC1_of_1	Ana-Lab CoC AQU1 948946_1_of_1	5
	Total Pages:	15



Report Page 1 of 16



Page 1 of 2

3 4 5

Project 948946

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AQU1-G

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947924

Results

					Sample	Res	sults					
	1950856	D040548-01								Received:	12/18	3/2020
Dr	rinking Water		Collected by	v: Client	Aqua-Teo	h La	aboratori		PO:			
			Taken: 12	2/16/2020	1:	2:00	:00					
Supp	plement to Test	Report 1948833										
				Prepared:		12/1	16/2020	12:00:00	Analyzed	12/16/2020	12:00:00	CLI
	Parameter			Results	Un	its	RL		Flags	CAS		Bottle
	Turbidity ana	lyzed by client		<1	NT	U						
EF	PA 200.8 5.4			Prepared:	932626	01/0	06/2021	11:15:00	Analyzed 932626	01/06/2021	11:15:00	SAN
	Parameter			Results	Un	its	RL		Flags	CAS		Bottle
ELAC	Manganese,	l'otal		0.00582	mg	L/L	0.001			7439-96-5		02
EF	PA 300.0 2.1			Prepared:	931087	12/2	21/2020	21:43:00	Analyzed 931087	12/21/2020	21:43:00	ATN
-	Parameter			Results	Un	its	RL		Flags	CAS		Bottle
ELAC	Sulfate			1590	mg.	L/L	10.0					01
EF	PA 300.0 2.1			Prepared:	931096	12/2	21/2020	14:38:00	Analyzed 931096	12/21/2020	14:38:00	ATN
-	Parameter			Results	Un	its	RL		Flags	CAS		Bottle
ELAC	Chloride			35.0	mg/	/L	1.00					01



Ana-Lab Corp. 2600 Dudley Rd. Kilgore, Texas 75662 P.O. Box 9000 Kilgore, Texas 75663 Office: 903-984-0551 * Fax: 903-984-5914

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



Page 2 of 2



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Qualifiers:

We report results on an As Received or wet basis unless marked Dry Weight. Unless otherwise noted, testing was performed at Ana-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No LA026, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-068-0. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation.

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.

U

Trey Peery, MA, Project Manager



Report Page 3 of 16

RESULTS

Page 1 of 2

Project 948946

01/08/2021 Printed

947924

AQU1

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	<u>CAS</u> Parameter		Results	MDL	SDL	MQL	MQLAdj	Flag	Units	Target	Bottle	Dilute
	Drinking Water	Administrative										
	1950856 D040548-01											
	Supplement to Test Report 1948833 Prepared:		Collection:	12/16/202	20	12:00:00	Client			Received:	12/18/2020	
Turbidity analyzed by client			<1	Analyzed:				12	2/16/20 NTU	12:00:00		1.00

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

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

U

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-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No LA026, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-o68-o. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation.

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NELAP-accredited #T104704201-20-17

2600 Dudley Rd. Kilgore, Texas 75662 P.O. Box 9000 Kilgore, Texas 75663 Office: 903-984-0551 * Fax: 903-984-5914

RESULTS

AQU1

Aqua-Tech Laboratories
John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104
Trey Peery, MA, Project Manager



Page 2 of 2

Project
948946

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947924

TNI



Page 1 of 2

Project
948946

Printed 01/08/2021

947924

1 01/06/

AQU1

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<u>CAS</u> Parame	eter	Results	MDL	SDL	MQL	MQLAdj	Flag	Units	Target	Bottle	Dilute
Drinking Water		Ion Chromatography							EPA	300.0 2.1	
1950856 D040548	B- 0 1										
		Collection:	12/16/2	020	12:00:00	Client			Received:	12/18/202	20
Supplement to Test Repo	ort 1948833										
Prepared:	931087										
				Analyzed:		931087	12	2/21/20	21:43:00		
Sulfate		1590	0.0871	8.71	0.100	10.0		mg/L	250 Secondary Standard	01	100.00
Prepared:	931096										
				Analyzed:		931096	12	2/21/20	14:38:00		
Chlorio	de	35.0	0.0612	0.612	0.100	1.00		mg/L	250 Secondary Standard	01	10.00

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

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

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)





Page 2 of 2

Project 948946

Printed 01/08/2021

947924

AQU1

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Qualifiers:

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Trey Peery, MA, Project Manager





Page 1 of 2

Dilute

1.00



947924

01/08/2021

Bottle

EPA 200.8 5.4

Units

Printed

Target

635 Phil Gramm Blvd. Bryan, TX 77807-9104 <u>CAS</u> Parameter Results MDL SDL MQL MQLAdj Flag **Drinking Water** Metals 1950856 D040548-01

> Collection: Received: 12/16/2020 12:00:00 Client 12/18/2020

Supplement to Test Report 1948833

932626 Prepared:

John Brien

AQU1

Aqua-Tech Laboratories

932626 Analyzed: 1/6/21 11:15:00 7439-96-5 Manganese, Total

0.00582 0.000168 0.000168 0.001 0.001 mg/L 0.050

Secondary Standard

02

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-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No. LA026, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-o68-o. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation. 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.



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Trey Peery, MA, Project Manager



Page 2 of 2

948946

Printed 01/08/2021

947924

Quality Control



AQU1-G

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Project

948946

3

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								Printed	01/08/202	21	
Analytical Set	931087									EPA:	300.0 2. 1
				Е	lank						
Parameter Parameter	PrepSet	Reading	MDL	MQL	Units			File			
Sulfate	931087	ND	0.0871	0.100	mg/L			121890572			
					ccv						
Parameter		Reading	Known	Units	Recover%	Limits%		File			
Sulfate		10.3	10.0	mg/L	103	90.0 - 110		121890568			
Sulfate		9.06	10.0	mg/L	90.6	90.0 - 110		121890578			
Sulfate		10.0	10.0	mg/L	100	90.0 - 110		121890585			
					S Dup						
Parameter Parameter	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Sulfate	931087	5.04	5.02		5.00	88.0 - 110	101	100	mg/L	0.398	20.0
				ı	MSD						
<u>Parameter</u>	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Sulfate	1948530	10.6	11.0	0.510	10.0	80.0 - 120	101	105	mg/L	3.89	20.0
Analytical Set	931096									EPA:	300.0 2.
•				В	llank						
<u>Parameter</u>	PrepSet	Reading	MDL	MQL	Units			File			
Chloride	931096	ND	0.0612	0.100	mg/L			121890733			
				(ccv						
<u>Parameter</u>		Reading	Known	Units	Recover%	Limits%		File			
Chloride		10.6	10.0	mg/L	106	90.0 - 110		121890730			
Chloride		10.3	10.0	mg/L	103	90.0 - 110		121890746			
				LC	S Dup						
<u>Parameter</u>	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	931096	4.84	4.75		5.00	85.0 - 110	96.8	95.0	mg/L	1.88	20.0
				ı	MSD						
<u>Parameter</u>	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	1949008	223	230	157	50.0	80.0 - 120	132 *	146 *	mg/L	10.1	20.0
Analytical Set	932626									EPA :	200.8 5.
				(ccv						
<u>Parameter</u>			Known		Recover%	Limits%		File			
Manganese, Total		0.0518	0.05	mg/L	104	90.0 - 110		121917958			
Manganese, Total		0.0515	0.05	mg/L	103	90.0 - 110		121917969			
Manganese, Total		0.051	0.05	mg/L	102	90.0 - 110		121917979			
					ICV						
<u>Parameter</u>		Reading	Known	Units	Recover%	<i>Limits</i> % 90.0 - 110		File			
Manganese, Total		0.0512	0.05	mg/L	102	ΛΛ Λ 11Λ		121917952			



Report Page 10 of 16

Quality Control



Page 2 of 2

Project 948946

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AQU1-G

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LDR

<u>Parameter</u>	Reading	Known	Units	Recover%	Limits%	File	
Manganese, Total	1.02	1	mg/L	102	90.0 - 110	121917957	
			MRI	_ Check			
<u>Parameter</u>	Reading	Known	Units	Recover%	Limits%	File	
Manganese, Total	0.00102	0.001	mg/L	102	25.0 - 175	121917953	

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

Blank - Method Blank; CCV - Continuing Calibration Verification; ICV - Initial Calibration Verification; LDR - Linear Dynamic Range Standard; MRL Check - Minimum Reporting Limit Check Std



Report Page 11 of 16

CONTAINERS SUPPLIED:

) D040548-01 [B] - U 0.125LP

Chloride - EPA 300.0 Analysis Request for:

Sample ID: D040548-01

Sampled: 12/16/20 12:00

Matrix: Drinking Water

Laboratory ID >>

SO4 DW - EPA 300.0

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



Chain-of-Custody & Analysis Request

Ana-Lab Corp. (NELAP Cert. T104704201) 2600 Dudley Road

Fax: (903) 984-5914

SHIPPED TO:

Kilgore, TX 75662 Phone: (903) 984-0551

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.

C-O-C#

515 - D040548

T10470437

Page 12 of 16

Relinquished by: (print & sign) Received by: (print & sign) Lone Star Kelly Kukowski rrier & Tracking Number: Royshaws The Team and an Cooler Temperature (°C) Line below documents condition at receipt in lab (shipped to) listed above. Cooler 1 X ATL-Austin Received in Lab Temp. Read (TR) N. ∏ATL-Bryan Corrected Temp. (CT) Cooper 1: N/A Sampler aqu1 - z1000juu Thermometer ID 12/18/20 12/17/20 Date Please email reports to: reporting@aqua-techlabs.com Please return cooler(s) to: Austin Facility 0220 16:11 Time Received load Custody Sealed Not Chilled "X" all that apply Sample Info 5 DAY TAT Abbreviations: DW - Drinking Water

NP - Non-Potable Water Aqua-Tech Comments and Special Instructions CTU - Custody Transfer Unbroken S - Solid StP - Sterile Plastic LP - Liter Plastic LG - Liter Glass BRET

Tracking # and Temp See Attention for

Page 1 of 1

948946 CoC Print Group 001 of 001

12/17/2020

https://www2.lso.com/weblabels/?labelsize=0&combinedlabel=1&sessionkey=%7BD58CABE5-BBAE-4117-9ACB-C4950E31B6FB%7D





LSO 1-800-800-8984 www.lso.com

SHIP TO: RECEIVING ANA LAB CORP 2600 DUDLEY RD KILGORE, TX 75662 9039840551

From: KELLY KUKOWSKI AQUA TECH LABS 3512 MONTOPOLIS DR STE A -AUSTIN, TX 78744 5123019559



LSO ECONOMY NEXT DAY 3:00 IN MOST AREAS

LATER IN REMOTE AREAS

PRINT DATE: 12/17/2020 REF 3: QUICKCODE: WEIGHT: 30,00LBS REF 1: 1D00V,0000 REF 2:

Date

Fold on above line and place shipping label in pouch on package. Please be sure the barcodes and

- au and scanned. Shipping Instructions

- 1. Fold this page along the horizontal line above.
- 2. Place this Airbill in the shipping label pouch on the package you are shipping. Please be sure the barcodes and addresses can be read and scanned.
- 3. To locate a drop box near you, click on Find A Drop Box from the home page main menu.
- 4. To schedule a pickup, click on Request Pickup.

WARNING: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your Lone Star Overnight account number.

This label is valid for use for 3 months from the date printed. Use of expired labels may result in delayed billing and / or additional research charges. LIMIT OF

LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES OR



Chain-of-Custody & Analysis Request

C-O-C#

405 - D040548

Laboratory ID >>

T104704371

ort Page 14 of 16

Relinquished by: (print & sign) Received by: (print & sign) Marianne R. Guzman Lone Star KENTY TOVOT AND LED Cooler Temperature (°C) Line below documents condition at receipt in lab (shipped to) listed above. Cooler 1 N/A ATL-Austin Received in Lab Temp. Read (TR) × X ATL - Bryan Corrected Temp. (CT) Mohron Cooler 1/ AQU5 2 K Sampler Thermometer ID Y03 (7) 12/29/20 30/20 0940 Date 012 reporting@aqua-techlabs.com Please return cooler(s) to: Please email reports to: Austin Facility 1630 Time Custody Scaled
Most Chilled Not Rec'd loed Sample info "X" all that apply Received load Contact Aqua-Tech Sample Custodian before running sample 5 DAY TAT Need New 2010 MALs Abbreviations: DW - Drinking Water
NP - Non-Potable Water Aqua-Tech Comments and Special Instructions Tracking # and Temp See Attached for CTU - Custody Transfer Unbroken S-Solid LP - Liter Plastic LG - Liter Glass StP - Sterlle Plastic

BRET

CONTAINERS SUPPLIED: ATL - Bryan Facility: 635 Phil Gramm Blvd. Bryan, TX 77807 (979) 778-3707 Fax (979) 778-3193 Analysis Request for: Mn - EPA 200.8 R5.4 Turb scan 21 NTU (0.4 NTU)
Add to projet 947924 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. CACAMAN YN ATL - Austin Facility: 3512 Montopolis Drive Austin, TX 78744 (512) 301-9559 Fax (512) 301-9552 Sample ID: D040548-01 (ATL indicates cooler number in parentheses for each container - only required if more than one cooler listed below.) Ana-Lab Corp. (NELAP Cort. T104704201) 2600 Dudley Road Kilgore, TX 75662 Fax: (903) 984-5914 SHIPPED TO: Phone: (903) 984-0551 Sampled: 12/16/20 12:00) D040548-01 [G] - [SUB] ANA 0.25LP HNO3 [Split from -01C] Matrix: Drinking Water

Page 21 of 23 D040548 1 ATL 110720 FIN Is 01 11 21 1611

Page 1 of 1

948946 CoC Print Group 001 of 001

12/28/2020

https://www2.lso.com/weblabels/?labelsize=0&combinedlabel=1&sessionkey=%7BEE29B5F9-049D-41E2-A407-526B33535E93%7D





LSO 1-800-800-8984 www.lso.com

SHIP TO: S/R ANA-LAB 2600 DUDLEY RD KILGORE, TX 75662 9039840551 From: NULL AQUA-TECH 635 PHIL GRAMM BLVD BRYAN, TX 77807 9797783707



LSO GROUND

END OF BUSINESS DAY DELIVERY

PRINT DATE: 12/28/2020 REF 3: QUICKCODE: WEIGHT: 12.00LBS REF 1: 1D00V.0000 REF 2:

Date Time Tech
Temp: 18,2//8,2

Therm#: 6443 Corr Fact: 0.0 C

Fold on above line and place shipping label in peuch on package. Please be sure the barcodes and addresses can be read and scanned. Shipping Instructions

- 1. Fold this page along the horizontal line above.
- 2. Place this Airbill in the shipping label pouch on the package you are shipping. Please be sure the barcodes and addresses can be read and scanned.
- 3. To locate a drop box near you, click on Find A Drop Box from the home page main menu,
- 4. To schedule a pickup, click on Request Pickup.

WARNING: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your Lone Star Overnight account number.

This label is valid for use for 3 months from the date printed. Use of expired labels may result in delayed billing and / or additional research charges. LIMIT

OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES OR RESIDENTIAL DELIVERIES.

Turb scan 1 NTU (0.4 NTU)

Add to project 947924

CONTAINERS SUPPLIED:

Mn - EPA 200.8 R5.4

NA AMOUNT

Analysis Request for:

Fax (979) 778-3193

Chain-of-Custody & Analysis Request

ATL - Bryan Facility: 635 Phil Gramm Blvd. Bryan, TX 77807 (979) 778-3707 ATL - Austin Facility: S512 Montopolls Drive Austin, TX 78744 (612) 301-9559 Fax (512) 301-9552

SHIPPED TO:

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.

Sample ID: D040548-01 Sampled: 12/16/20 12:00 Matrix: Drinking Water

Laboratory ID >>

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

) D040548-01 [G] - [SUB] ANA 0.25LP HNQ3

Split from -01CJ

Fax: (903) 984-5914 Phone; (903) 984-0551

Kilgore, TX 75662

Ana-Lab Corp. (NELAP Cert. T104704201) 2600 Dudley Road

\$00°C

405 - D040548

T104704371

Report Page 16 of 16

Page 1 of 1

Water Quality

Well No. 3



Email information for report date: 12/23/20 10:53

D040816

Apex Drilling

Attn: Michael Becker apexdrilling.becker@yahoo.com

PO Box 867 Marble Falls, TX 78654

****Attention Austin Laboratory Clients****
Aqua-Tech is excited to announce that our
Austin Laboratory is expanding and moving to a
new location!

We will close our current Austin Laboratory location on Friday, October 23, 2020 at 12:00 p.m. to begin the moving process and will re-open at our new location on Monday, October 26 at 8:00 a.m.

Austin Laboratory address as of October 26, 2020: 3512 Montopolis Drive Austin, TX 78744

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

CORPORATE OFFICE

635 Phil Gramm Boulevard Bryan, TX 77807

Phone: (979) 778-3707 Fax: (979) 778-3193



AUSTIN OFFICE

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

TCEQ DW Lab ID TX 239

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 required by the State of Texas.

DWP Accreditation 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.

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

June M. Brien

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@aqua-techlabs.com

www.agua-techlabs.com

Page 1 of 4 D040816_1 ATL 110720 FIN_ls 12 23 20 1053

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



AUSTIN OFFICE 3512 Montopolis Dr. Suite A

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

Analytical Report

Apex Drilling

Report Printed:

12/23/20

D040816

10:53

LEGACY HILLS NO3			12/16/20 15:00 by CLIE 12/17/20 11:36 by Kelly			<i>Type</i> Grab		<i>Matrix</i> Drinki	ng Water	C-O-C # 40816/40818	
Lab ID# D040816-01	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	12/17/20 17:14 JLL	SM9223 B 2004	M122600	NEL
Escherichia coli (E.coli)	Absent	N/A		N/A	N/A	N/A	Austin	12/17/20 17:14 JLL	SM9223 B 2004	M122600	NEL

				Micro	biologi	ical Analyses - Qualit	_				Log10 Co	omparison		
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Range	Control Limit	Batch	
Escherichia col	li (E.coli) - SM92	223 B 2004												Austin
Blank	Absent	N/A		N/A	N/A	12/17/20 17:14 JLL							M122600	
Total Coliforms	- SM9223 B 20	04												Austin
Blank	Absent	N/A		N/A	N/A	12/17/20 17:14 JLL							M122600	

		Sample Prepar	ation Sumr	nary					External Dilution	
Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	Factor	Batch
D040816-01										
Escherichia coli (E.coli) Total Coliforms	SM9223 B 2004 SM9223 B 2004	12/17/20 17:06 JLL 12/17/20 17:06 JLL	Austin Austin	A A	100 100	mL mL	100 100	mL mL	1 1	M122600 M122600

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AQUA-TECH LABORATORIES, INC.	Chain-of-Cus	todv a	nd Analys	is Rec	uest		45.0	1900	Ac	ıua-Tec	h Labor	atories, Inc	1		Order / CO-C
										Austin		Bryan	***************************************	4081	
Client /Project:				-			100	a coo					5 Phil Gramm Blvd. Bryan, TX 77807 979.778.3707 Ition requirements unless V-002 Ition Page V-002 Ition Date ATL Field Time ATL Field Time ATL Field Time ATL Field Date Time ATL Field Time See ONLY BELOW (initials Field) ATL Field See ONLY BELOW (initials Field) See ONLY BELOW (initials Field) ATL Field See ONLY BELOW (initials Field) ATL Field See ONLY BELOW (initials Field) See ONLY BELOW (initials Field) ATL Field See ONLY BELOW (initials Field) ATL Field See ONLY BELOW (initials Field) ATL Field ATL Field See ONLY BELOW (initials Field) ATL Field ATL Field See ONLY BELOW (initials Field) ATL Field ATL F	1818	
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도 Address '		ition					TX	(239 Tes	st results				s unless	V-(023 R03
u c	ZIP	efin	CTU - Custody Tran	sfer Unbroke	en						Sample C	ustody			
Phone / Email	1 10 10 10 10 10 10 10	() Iced / Refrig													
By relinquishing the sa Samples will be analyzed by a method that is within Agua-T		ad mathod that is n	of within Agua		-04)	3 C K97			Time	/:3/				
Tech's fields of accreditation will be subcontracted to a NEI		ethod. Clients will be	notified of th	e subcontract lab's	details. Other						***************************************	Date			
column. The client approves all method modifications docu-		and the state of t													
Client Comments:	1			Receip	t in Lab		Relinquished		***************************************				Date	No. of Contract of	
	1 < 6 °C (unf	rozen)	Coole	1/\/	<i>f</i>	ut	by				M	ATL Field	Time		
	2 H2SO4	******************************	Temperature	°C1 : B.1	j	NY	D					Client	Date		Iced / Refrig
	3 HCI			/ CT	BIG	vr/			. www.	National Confederation of the		ATL Field	Time		
	4 HNO3		Preservation Corr	ect ? Y	ES NO	KES NO	Relinquished		reconstruction .			Client	Date		lced / Refrig
	5 Na2S2O3 075	6704	Post Preservativ	es ? Y	ES NO	YES NO		atematica.		A		ATL Field	Time		CM / CTU /
	6 NaOH	***************************************	Thermometer	ID:	7144	30	Received by	elly Kukows	ki /	\sqrt{I}			Date 12	17/20	Cond Good
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Field Sample ID	Start		End		Composite	Sample			r(s)	1	LAB	USE ONLY B	ELOW	·	44)
(record field data for each sample in space below) Date	Time	Date	Time	Type	Matrix					Cooler ID	pH Check		K See	Below
Legacy Holls 93	12.16 20	15:00	WERE CONTROL OF THE PROPERTY O		6	DW	1	0.12	SHY	1,5	MA		Sampl	11/04	A
Analysis Requested &							·		Ť			<u> </u>	10	4	LYL .
Comments: // SAC/	ŧ											V V	1	Mars	٨.
Legacy Hills #3	12.18.20	15:6	Sweet Salating	ACCUSATION OF THE PARTY OF THE	6	Dw	1	2	P		COL	A.A.A.		8 18	at !
Analysis Requested &	C	1 Cor	nd F 1	-e 1	V93 NO	2		······································	1) زر ا		well
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Analysis															
Requested & Comments:						ŀ		***************************************	+-+					-	

Z

Well numbers correspond to Attachment I

y Aquifer to provide adequate drinking water. sample will need to be collected and analyzed for the follow The water quality from each well will need to be assessed

- · Conductivity

- Nitrate (as nitrogen)
- Nanganese

- Total Dissolved Solids (TDS)
- Presence/absence of total coliform bacteria

have any questions please feel free to call me at 512-773-3

Email information for report date: 1/8/21 15:59

D040818

Apex Drilling

Attn: Michael Becker apexdrilling.becker@yahoo.com

PO Box 867 Marble Falls, TX 78654

****Attention Austin Laboratory Clients****
Aqua-Tech is excited to announce that our
Austin Laboratory is expanding and moving to a
new location!

We will close our current Austin Laboratory location on Friday, October 23, 2020 at 12:00 p.m. to begin the moving process and will re-open at our new location on Monday, October 26 at 8:00 a.m.

Austin Laboratory address as of October 26, 2020: 3512 Montopolis Drive Austin, TX 78744

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

CORPORATE OFFICE

635 Phil Gramm Boulevard Bryan, TX 77807

Phone: (979) 778-3707 Fax: (979) 778-3193



AUSTIN OFFICE

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

TCEQ DW Lab ID TX 239

Fax: (512) 301-9552

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This report was approved by:

June M. Brien, Technical Director

June M. Brien

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@aqua-techlabs.com

www.agua-techlabs.com

Page 1 of 23 D040818_1 ATL 110720 FIN_ls 01 08 21 1559

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



AUSTIN OFFICE

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

Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

1/8/21 15:59

D040818

LEGACY HILLS NO3			2/16/20 15:00 by CLIE 2/17/20 11:36 by Kelly			<i>Type</i> Grab		<i>Matrix</i> Drinki		D-C # 16/40818	
Lab ID# D040818-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
Total Dissolved Solids	2890	mg/L		25.0	100	100	Bryan	12/18/20 18:55 MRH	SM2540 C 2011	M122657	NEL
Nitrate as N (NO3N)	<0.0200	mg/L			0.0200	0.0200	Calc	12/21/20 11:31 JLL	SM4500-NO3-F 2011	[CALC]	NEL
Nitrite as N	<0.01	mg/L	MS-01	0.002	0.002	0.01	Austin	12/18/20 11:00 JLL	SM4500 NO2- B 2011	M122640	NEL
Nitrate/Nitrite as N	0.02	mg/L		0.02	0.02	0.02	Bryan	12/21/20 11:31 EMT	SM4500-NO3-F 2011	M122701	ANR
Total Hardness (EDTA) as CaCO3	1980	mg/L		1.00	25.0	25.0	Bryan	12/21/20 18:45 MRH	SM2340 C 2011	M122748	NEL
Fluoride	2.06	mg/L		0.04	0.04	0.10	Bryan	12/28/20 19:00 MRH	SM4500-F C 2011	M122948	NEL
pH, Lab	7.5	S.U.	Hold-03		N/A	N/A	Austin	12/21/20 08:50 KT	SM4500-H+ B 2011	M122698	DWP
Temperature @ pH Analysis	20.2	Deg. C			N/A	N/A	Austin	12/21/20 08:50 KT	SM4500-H+ B 2011	M122698	DWP
Specific Conductance (adjusted to 25.0°C)	3830	uS/cm		2.00	6.67	6.67	Bryan	01/05/21 14:30 CJO	SM2510 B 2011	M123224	DWP,NEL
Metals (Total)											
Iron	0.117	mg/L		0.002	0.002	0.010	Bryan	12/23/20 16:27 PNS	EPA 200.7 R4.4	M122737	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.
MS-01	The MS and/or MSD recovery was outside acceptance limits. Investigation concludes it is a sample- specific matrix effect and the batch was accepted based on acceptable LCS and /or LCSD recovery.
RPD-02	RPD was not calculated in LIMS due to one or both of the sample / duplicate pair being less than the MRL.

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



AUSTIN OFFICE

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

Report Printed:

1/8/21 15:59

D040818

				G	eneral C	Chemistry - Quality Co								
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Fluoride - SM4500	F C 2011													Bryan
nitial Cal Check	0.43	mg/L				12/28/20 19:00 MRH	0.428		100	90 - 110			2012295	
Blank	<0.10	mg/L		0.04	0.10	12/28/20 19:00 MRH							M122948	
LCS	0.83	mg/L		0.04	0.10	12/28/20 19:00 MRH	0.799		104	90 - 110			M122948	
LCS Dup	0.85	mg/L		0.04	0.10	12/28/20 19:00 MRH	0.799		106	90 - 110	2.38	6.23	M122948	
Matrix Spike	0.99	mg/L		0.04	0.10	12/28/20 19:00 MRH	0.799	0.16	104	78.1 - 125			M122948	
Matrix Spike Dup	1.00	mg/L		0.04	0.10	12/28/20 19:00 MRH	0.799	0.16	105	78.1 - 125	0.957	5.72	M122948	
MRL Check	0.10	mg/L		0.04	0.10	12/28/20 19:00 MRH	0.0999		98.8	73.4 - 118			M122948	
Nitrate/Nitrite as N	- SM4500-N	IO3-F 2011												Bryar
Initial Cal Check	1.40	mg/L				12/21/20 11:31 EMT	1.40		100	90 - 110			2012230	
Low Cal Check	0.02	mg/L				12/21/20 11:31 EMT	0.0200		110	70 - 130			2012230	
Blank	<0.02	mg/L		0.02	0.02	12/21/20 11:31 EMT							M122701	
LCS	0.49	mg/L		0.02	0.02	12/21/20 11:31 EMT	0.500		98.8	91.3 - 109			M122701	
LCS Dup	0.50	mg/L		0.02	0.02	12/21/20 11:31 EMT	0.500		100	91.3 - 109	1.30	6.8	M122701	
Matrix Spike	1.97	mg/L		0.02	0.02	12/21/20 11:31 EMT	0.500	1.45	105	94.7 - 117			M122701	
Matrix Spike Dup	1.96	mg/L		0.02	0.02	12/21/20 11:31 EMT	0.500	1.45	102	94.7 - 117	3.01	8.65	M122701	
Nitrite as N - SM45	00 NO2- B	2011												Austir
Blank	<0.01	mg/L		0.002	0.01	12/18/20 11:00 JLL							M122640	
LCS	0.08	mg/L		0.002	0.01	12/18/20 11:00 JLL	0.0800		103	90 - 110			M122640	
LCS Dup	0.08	mg/L		0.002	0.01	12/18/20 11:00 JLL	0.0800		103	90 - 110	0.00	8.12	M122640	
Matrix Spike	<0.01	mg/L	J, MS-01 (0.005)	0.002	0.01	12/18/20 11:00 JLL	0.0800	<0.01	6.06	70.6 - 117			M122640	
Matrix Spike	0.18	mg/L	MS-01	0.007	0.03	12/18/20 11:00 JLL	0.267	< 0.03	67.7	70.6 - 117			M122640	
Matrix Spike	0.58	mg/L	MS-01	0.02	0.08	12/18/20 11:00 JLL	0.667	<0.08	86.6	70.6 - 117			M122640	
Matrix Spike Dup	<0.01	mg/L	J, MS-01 (0.005)	0.002	0.01	12/18/20 11:00 JLL	0.0800	<0.01	6.06	70.6 - 117	0.00	8.18	M122640	
Matrix Spike Dup	0.18	mg/L	MS-01	0.007	0.03	12/18/20 11:00 JLL	0.267	< 0.03	66.3	70.6 - 117	1.97	8.18	M122640	
Matrix Spike Dup	0.57	mg/L	MS-01	0.02	0.08	12/18/20 11:00 JLL	0.667	<0.08	86.1	70.6 - 117	0.510	8.18	M122640	
рН, Lab - SM4500-	H+ B 2011													Austi
Duplicate	7.5	Std Units				12/21/20 08:50 KT		7.4			1.07	1.18	M122698	
Reference	6.9	Std Units				12/21/20 08:50 KT	6.86		101	95 - 105			M122698	
Reference	9.2	Std Units				12/21/20 08:50 KT	9.18		100	95 - 105			M122698	
Reference	6.9	Std Units				12/21/20 08:50 KT	6.86		101	95 - 105			M122698	
Reference	9.3	Std Units				12/21/20 08:50 KT	9.18		101	95 - 105			M122698	

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AUSTIN OFFICE

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

Apex Drilling

Report Printed:

1/8/21 15:59

D040818

					onoran c	chemistry - Quality Co		0				RPD		
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD		atch	
pecific Conducta	ance (adjuste	ed to 25.0°C) -	SM2510 B 2011											Bryan
nitial Cal Check	513	uS/cm				01/05/21 14:30 CJO	484		106	90 - 110		2	101024	
Blank	<2.00	uS/cm		2.00	2.00	01/05/21 14:30 CJO						N	1123224	
Duplicate	829	uS/cm		2.00	2.00	01/05/21 14:30 CJO		824			0.605	2 N	1123224	
_CS	1360	uS/cm		2.00	2.00	01/05/21 14:30 CJO	1410		96.1	90 - 110		N	1123224	
otal Dissolved S	olids - SM25	40 C 2011												Bryan
Blank	<25.0	mg/L		25.0	25.0	12/18/20 18:55 MRH						N	1122657	
Duplicate	596	mg/L		100	100	12/18/20 18:55 MRH		596			0.00	9.13 N	1122657	
Reference	440	mg/L		100	100	12/18/20 18:55 MRH	500		88.0	81 - 121		N	1122657	
Гotal Hardness (Е	DTA) as CaC	O3 - SM2340	C 2011											Bryan
Initial Cal Check	53.5	mg/L				12/21/20 18:45 MRH	54.4		98.3	85 - 115		2	012237	
Blank	<1.00	mg/L		1.00	1.00	12/21/20 18:45 MRH						N	1122748	
Duplicate	10.9	mg/L		1.00	1.00	12/21/20 18:45 MRH		11.9			8.70	9.52 N	1122748	
LCS	102	mg/L		1.00	1.00	12/21/20 18:45 MRH	100		102	90 - 110		N	1122748	
LCS Dup	99.0	mg/L		1.00	1.00	12/21/20 18:45 MRH	100		99.0	90 - 110	2.96	6.47 N	1122748	
Matrix Spike	110	mg/L		1.00	1.00	12/21/20 18:45 MRH	100	11.9	98.0	87.6 - 111		N	1122748	
MRL Check	4.95	mg/L		1.00	1.00	12/21/20 18:45 MRH	4.00		124	70 - 130		N	1122748	
					Metals	(Total) - Quality Cont	rol							
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit B	atch	
Iron - EPA 200.7 R	4.4													Bryan
Blank	<0.010	mg/L		0.002	0.010	12/23/20 15:28 PNS						N	1122737	
_CS	0.947	mg/L		0.002	0.010	12/23/20 15:31 PNS	1.00		94.7	84.5 - 115.4		N	1122737	
LCS Dup	0.967	mg/L		0.002	0.010	12/23/20 15:34 PNS	1.00		96.7	84.5 - 115.4	2.10	20 N	1122737	
Duplicate	<0.010	mg/L	J, RPD-02 (0.003)	0.002	0.010	12/23/20 15:38 PNS		<0.010				20 N	1122737	
Matrix Spike	0.940	mg/L		0.002	0.010	12/23/20 15:41 PNS	1.00	0.002	94.0	69.5 - 130.4		N	1122737	
				Pre	paration	Procedures - Quality	Control							
		11.9	N	,	-	•	Spike	Source	0/ 5	0/51: 11	555	RPD		
	Result	Units	Notes	MDL	SQL	Analyzed	Amount	Result	%R	%R Limits	RPD	Limit B	atch	

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Fax: (512) 301-9552

3512 Montopolis Dr. Suite A Austin, TX 78744 Phone: (512) 301-9559 Analytical Report

Apex Drilling

Report Printed:

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D040818

	Sample Preparation Summary											
Sample	Method	Prepared	Lab	Bottle	e Initial	Units	Final	Units	Dilution Factor	Batch		
D040818-01												
Fluoride	SM4500-F C 2011	12/28/20 19:00 MRH	Bryan	С	25.0	mL	25.0	mL	1	M122948		
Iron	EPA 200.7 R4.4	12/21/20 14:50 BLC	Bryan	В	10.0	mL	10.2	mL	1	M122737		
Nitrate/Nitrite as N	SM4500-NO3-F 2011	12/21/20 9:23 EMT	Bryan	D	10.0	mL	10.0	mL	1	M122701		
Nitrite as N	SM4500 NO2- B 2011	12/18/20 11:00 JLL	Austin	Α	25.0	mL	25.0	mL	1	M122640		
pH, Lab	SM4500-H+ B 2011	12/21/20 8:50 KT	Austin	Α	50.0	mL	50.0	mL	1	M122698		
Sample Acidified to pH<2 in Lab	N/A	12/17/20 12:44 KK	Bryan	D	1.00	mL	1.00	mL	1	M122573		
Specific Conductance (adjusted to 25.0	°C) SM2510 B 2011	1/5/21 14:30 CJO	Bryan	С	15.0	mL	50.0	mL	1	M123224		
Temperature @ pH Analysis	SM4500-H+ B 2011	12/21/20 8:50 KT	Austin	Α	50.0	mL	50.0	mL	1	M122698		
Total Dissolved Solids	SM2540 C 2011	12/18/20 18:55 MRH	Bryan	С	25.0	mL	100	mL	1	M122657		
Total Hardness (EDTA) as CaCO3	SM2340 C 2011	12/21/20 18:45 MRH	Bryan	В	2.00	mL	50.0	mL	1	M122748		
Turbidity	SM2130 B 2011	12/21/20 12:58 BLC	Bryan	В	10.0	mL	10.0	mL	1	M122722		
D040818-01RE1												
Sample Acidified to pH<2 in Lab	N/A	12/17/20 12:45 KK	Bryan	В	100	mL	100	mL	1	M122574		

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AQUA-TECH LABORATORIES, INC.	QUA-TECH Chain-of-Custody and Analysis Request								Aq	ua-Tec	h Labor	Laboratories, Inc.			Order / C/O-C
Client /Project:		-	60°		***************************************		4			Austin		Bryan	1	4081	
			DVA/ Dealine Water	***************************************			- 1900	and the second		Montopolis D		635 Phil Gramm B Bryan, TX 7780		40	1818
1 12 1 19 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	116	2	DW - Drinking Water NP - Non-Potable Wate	r	P - Plas		T104	704371		2.301.9559		979.778.3707	***************************************	Page	of
도 Address *		i i	S - Solid		G - Glas T - Tefk		T)	(239	est results		reditation/cert stated otherw	ification requiremen rise.	ts unless	V-(0023 R03
Address City State O Phone /	ZIP	Definitions	CM - Custody Maintaine CTU - Custody Transfer	Unbroken							Sample C	ustody			
O Phone / Email			CT - Corrected Temper SUB - Subcontracted Ar				Relinquished	1 1 /	Л			Sampler	Date	7.17.7	() Iced / Refrig
By relinquishing the sa Samples will be analyzed by a method that is within Aqua-T	mples listed below to Aqua-To	ech, the clie	nt agrees to the following te	erms.			by (print & sign)	- ~ ~	()	: c K97		Client ATL Field	Time	1.37	Custody Sealed
Tech's fields of accreditation will be subcontracted to a NE	AC certified lab that is certific	ed for that m	nethod. Clients will be notifi	ed of the su	ibcontract lat	h's details. Other						Client	Date	170	
analytes not requiring accreditation will be analyzed by a column. The client approves all method modifications docu	mented by Aqua-Tech or the other methods are availa	subcontract	lab. A current list of Aqua-	the method Tech's NEL	d in the "Ana .AC fields of	lysis Requested" accreditation and	Received by (print & sign)					ATL Field	Time	and the state of t	
Client Comments:	* Preservativ	es	Re	eceipt in	n Lab		Relinquished		***************************************		A	- Floding	Date		Iced / Refrig
	1 < 6 °C (unfr	ozen)	Cooler ID	OUT		٧٧.	by (print & sign)				M	ATL Field	Time		см/сти
	2 H2SO4		Temperature (°C)	131/		147	Received by		***************************************			Client	Date		Iced / Refrig
	3 HCI		read / C1		19	NIY	(print & sign)		- Company	Control of the State of the Sta		ATL Field	Time		См/сти
	4 HNO3		Preservation Correct ?	YES(NO	KES NO	Relinquished	and the same of th			·	Client	Date		lced / Refrig
	5 Na2S2O3 0154	704	Post Preservatives ?	YES	NO /	YES NO	by (print & sign)			A		ATL Field	Time		□ CM / CTU / sealed
	6 NaOH	***************************************	Thermometer ID	07	1144	80	Received by	elly Kukow:	ski /	\sqrt{I}			Date 12	17/20	Cond Good
	7		pH Paper ID :		c-sintanti	**************************************	(print & sign)		6	11	te teamer	Lab	Time	130	Iced / Refrig
	Lab Comments														
Field Sample ID	Start		End	C	Composit	e Sample		Containe	er(s)		LAB	USE ONLY E	BELOW		44)
(record field data for each sample in space below	/) Date	Time	Date Ti	me	Type	Matrix	Bottle Count	Volume (Size in L)	Type (+)	Preserv- ative(s) *	Cooler ID	pH Check	WOR	K See	Relow
Legas 4 1-6/18 43	12.16 20	15:W			6	DW	7	0.12	BH	1,5	100	National National	Sampl	11-04	A
Analysis Requested &													[uo]	4	N. IN.
Comments:		ON THE STREET ENGINEERING)	4	W	ni A
Legacy 14/1/3 #3	12.16.20	15:16	Skanson Skalander -		6	DW	1	2	P		Clf	Az _i (A)	Sample 14	A18.	46
Analysis Requested &	CI	Cor	nd F Fe	: N	23 N	02		***************************************	8			Work 25)X) یا [2	WH.
Requested & Comments: See ATTACII	EO	Mn	SOY PHE	Hano	ness	TVS				***************************************		CKUp	000	100	d
		en a communication de la c											Sample	•	
Analysis Requested &		A										and the second of the second o			THE STATE OF THE S
Comments:									and the second	ted read or the property of the second			1		The state of the s
				A	FEZ	47							Sample	•	
Analysis	THE PROPERTY OF THE PROPERTY O			10	TU	and a service of the				***************************************			1		
Requested & Comments:			entrophering and providing the last visit of the last			ľ							1	-	
													Sample		
Analysis Requested & Comments:															

Z

Well numbers correspond to Attachment I

y Aquifer to provide adequate drinking water. sample will need to be collected and analyzed for the follow The water quality from each well will need to be assessed

- · Conductivity

- Nitrate (as nitrogen)
- Nanganese

- Total Dissolved Solids (TDS)
- Presence/absence of total coliform bacteria

have any questions please feel free to call me at 512-773-3

Page 1 of 1

3



AQU1-G

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

TABLE OF CONTENTS

947923

This report consists of this Table of Contents and the following pages:

Report Name	<u>Description</u>	Pages
948947_r03_03_ProjectResults	Ana-Lab Project P:948947 C:AQU1 Project Results t:304	2
948947_r03_06_A_ProjectTRRP	Ana-Lab Project P:948947 C:AQU1 Project TRRP Results Report for Class A	2
948947_r03_06_I_ProjectTRRP	Ana-Lab Project P:948947 C:AQU1 Project TRRP Results Report for Class I	2
948947_r03_06_M_ProjectTRRP	Ana-Lab Project P:948947 C:AQU1 Project TRRP Results Report for Class M	2
948947_r10_05_ProjectQC	Ana-Lab Project P:948947 C:AQU1 Project Quality Control Groups	1
948947_r99_09_CoC1_of_1	Ana-Lab CoC AQU1 948947_1_of_1	6
	Total Pages:	15



Report Page 1 of 16



Page 1 of 2

Project

01/08/2021

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947923

Results

					Sample F	Resi	ults					
	1950857	D040818-01								Received:	12/18	3/2020
Dr	rinking Water		Collected by	: Client	Aqua-Tec	h Lal	ooratori		PO:			
			Taken: 12	2/16/2020	15	:00:0	00					
Supp	plement to Test	Report 1948832										
				Prepared:		12/1	6/2020	15:00:00	Analyzed	12/16/2020	15:00:00	CLI
	Parameter			Results	Uni	ts	RL		Flags	CAS		Bottle
	Turbidity ana	lyzed by client		<1	NTU	J						
El	PA 200.8 5.4			Prepared:	932626	01/0	6/2021	11:11:00	Analyzed 932626	01/06/2021	11:11:00	SAM
	Parameter			Results	Uni	ts	RL		Flags	CAS		Bottle
IELAC	Manganese, 7	l'otal		0.00698	mg/	L	0.001			7439-96-5		02
El	PA 300.0 2.1			Prepared:	931087	12/2	1/2020	14:43:00	Analyzed 931087	12/21/2020	14:43:00	ATN
	Parameter			Results	Uni	ts	RL		Flags	CAS		Bottle
IELAC	Chloride			42.4	mg/	L	3.00					01
EF	PA 300.0 2.1			Prepared:	931087	12/2	1/2020	20:28:00	Analyzed 931087	12/21/2020	20:28:00	ATN
	Parameter			Results	Uni	ts	RL		Flags	CAS		Bottle
IELAC	Sulfate			2060	mg/	L	10.0					01



Gulf Coast Region: 4141 Director

Ana-Lab Corp. 2600 Dudley Rd. Kilgore, Texas 75662 P.O. Box 9000 Kilgore, Texas 75663 Office: 903-984-0551 * Fax: 903-984-5914

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Page 2 of 2

Project **948947**

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Qualifiers:

We report results on an As Received or wet basis unless marked Dry Weight. Unless otherwise noted, testing was performed at Ana-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No LA026, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-068-0. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation.

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.

U

Trey Peery, MA, Project Manager



Page 1 of 2

Project 948947

01/08/2021

947923

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	<u>CAS</u>	Parameter		Results	MDL	SDL	MQL	MQLAdj	Flag	Units	Target	Bottle	Dilute
	Drinking Water	r	Administrative										
	1950857	D040818-01											
Supplement to Test Report 1948832 Prepared:		_		Collection:	12/16/202	20	15:00:00	Client			Received:	12/18/2020	
	Turbidity analyzed by client			<1		Analyzed:			12	2/16/20 NTU	15:00:00		1.00

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

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

U

AQU1

Aqua-Tech Laboratories

635 Phil Gramm Blvd. Bryan, TX 77807-9104

John Brien

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-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No LA026, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-o68-o. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation.

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NELAP-accredited #T104704201-20-17

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RESULTS

AQU1

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John Brien
635 Phil Gramm Blvd.
Bryan, TX 77807-9104
Trey Peery, MA, Project Manager



Page 2 of 2

Project
948947

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947923

TNI



Page 1 of 2

Project 948947

01/08/2021

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AQU1

<u>CAS</u> Parame	eter	Results	MDL	SDL	MQL	MQLAdj	Flag Unit	Target	Bottle	Dilute
Drinking Water		Ion Chromatography						EPA	300.0 2.1	
1950857 D040818	3-01									
		Collection:	12/16/20	020	15:00:00	Client		Received:	12/18/20	20
Supplement to Test Repo		_								
Prepared:	931087									
				Analyzed:		931087	12/21/20	14:43:00		
Chloric	de	42.4	0.0385	0.385	0.300	3.00	mg/	250 Secondary Standard	01	10.00
Sulfate	,	2060	0.0871	8.71	0.100	10.0	mg/	Secondary Standard	01	100.00

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-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No. 2018-126, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-o68-o. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation. 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.



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Page 2 of 2

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Printed 01/08/2021

947923

TNI

Gulf Coast Region: 4141 Directors Row Ste C Ho



Page 1 of 2



Printed

01/08/2021

947923

<u>CAS</u>	Paramete	r		Results	MDL	SDL	MQL	MQLAdj	Flag Units	Target	Bottle	Dilute
Drinking V	Vater		Metals							EPA	200.8 5.4	
1950857	D040818-0)1										
				Collection:	12/16/20	20	15:00:00	Client		Received:	12/18/2020	
Supplemen	nt to Test Report	1948832										
	Prepared:	932626										
						Analyzed:		932626	1/6/21	11:11:00		
7439-96-	5 Mangane	se, Total		0.00698	0.000168	0.000168	0.001	0.001	mg/L	0.050 Secondary Standard	02	1.00

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

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

AQU1

Aqua-Tech Laboratories

635 Phil Gramm Blvd. Bryan, TX 77807-9104

John Brien

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-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No. LA026, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-o68-o. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation. 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.



NELAP-accredited #T104704201-20-17

AQU1

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

Trey Peery, MA, Project Manager



Page 2 of 2

Project **948947**

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947923

TNI

Quality Control



AQU1-G

Aqua-Tech Laboratories John Brien 635 Phil Gramm Blvd. Bryan, TX 77807-9104 Page 1 of 1

Project

948947

3

Printed 01/08/2021

								Timed	01/00/202	- 1	
Analytical Set	931087									EPA 3	300.0 2.1
,				В	lank						
Parameter	PrepSet	Reading	MDL	MOL	Units			File			
Chloride	931087	ND	0.0385	0.300	mg/L			121890572			
Sulfate	931087	ND	0.0871	0.100	mg/L			121890572			
					ccv						
Parameter		Reading	Known	Units	Recover%	Limits%		File			
Chloride		10.4	10.0	mg/L	104	90.0 - 110		121890568			
Chloride		9.76	10.0	mg/L	97.6	90.0 - 110		121890578			
Chloride		10.2	10.0	mg/L	102	90.0 - 110		121890585			
Sulfate		10.3	10.0	mg/L	103	90.0 - 110		121890568			
Sulfate		9.06	10.0	mg/L	90.6	90.0 - 110		121890578			
Sulfate		10.0	10.0	mg/L	100	90.0 - 110		121890585			
				LC	S Dup						
Parameter	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	931087	4.96	4.95		5.00	85.0 - 110	99.2	99.0	mg/L	0.202	20.0
Sulfate	931087	5.04	5.02		5.00	88.0 - 110	101	100	mg/L	0.398	20.0
				P	MSD						
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	1948530	63.1	64.8	53.8	10.0	80.0 - 120	93.0	110	mg/L	16.7	20.0
Sulfate	1948530	10.6	11.0	0.510	10.0	80.0 - 120	101	105	mg/L	3.89	20.0
Analytical Set	932626									EPA 2	200.8 5.4
, many crean sec				(ccv						
Parameter		Reading	Known	Units	Recover%	Limits%		File			
Manganese, Total		0.0518	0.05	mg/L	104	90.0 - 110		121917958			
Manganese, Total		0.0515	0.05	mg/L	103	90.0 - 110		121917969			
Manganese, Total		0.051	0.05	mg/L	102	90.0 - 110		121917979			
					ICV						
Parameter		Reading	Known	Units	Recover%	Limits%		File			
Manganese, Total		0.0512	0.05	mg/L	102	90.0 - 110		121917952			
				ı	LDR						
<u>Parameter</u>		Reading	Known	Units	Recover%	Limits%		File			
Manganese, Total		1.02	1	mg/L	102	90.0 - 110		121917957			
Parameter											
<u>Parameter</u>		Reading	Known	Units	Recover%	Limits%		File			
Manganese, Total		0.00102	0.001	mg/L	102	25.0 - 175		121917953			

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

Blank - Method Blank; CCV - Continuing Calibration Verification; ICV - Initial Calibration Verification; LDR - Linear Dynamic Range Standard; MRL Check - Minimum Reporting Limit Check Std



Report Page 10 of 16

Fax (979) 778-3193

CONTAINERS SUPPLIED:

) D040818-01 [E] - [SUB] ANA CI SO4 0.25LP

Chloride - EPA 300.0 Analysis Request for:

Sample ID: D040818-01

Sampled: 12/16/20 15:00

Matrix: Drinking Water

Laboratory ID >>

SO4 DW - EPA 300.0

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



Chain-of-Custody & Analysis Request

2600 Dudley Road Kilgore, TX 75662 Phone: (903) 984-0551 Fax: (903) 984-5914

SHIPPED TO:

Ana-Lab Corp. (NELAP Cert. T104704201)

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.

511 - D040818

C-O-C#

Page 1 of 1

T10470437

port Page 11 of 16

Relinquished by: (print & sign) Received by: (print & sign) Kelly Kukowski Lone Star Rowhown Trymper and ob Cooler Temperature (°C) Line below documents condition at receipt in lab (shipped to) listed above Cooler 1 ΝX Received in Lab X ATL-Austin Temp. Read (TR) NA ATL-Bryan Corrected Temp. (CT) Kay Shown Musey say Cooler 1 K aqu1 - z1000juu Sampler Thermometer ID 102/18/12) 12/17/20 Date reporting@aqua-techlabs.com Please return cooler(s) to: Please email reports to: Austin Facility 252 16:11 Time Regaived load Not Chilled "X" all that apply Custody Sealed Sample Info 5 DAY TAT Abbreviations: DW - Drinking Water NP - Non-Potable Water Aqua-Tech Comments and Special Instructions CTU - Custody Transfer Unbroken LP - Liter Plastic LG - Liter Glass StP - Sterile Plastic BRET

Tracking # and Temp Ges Attached to:

948947 CoC Print Group 001 of 001

12/17/2020

https://www2.lso.com/weblabels/?labelsize = 0&combined label = 1&session key = %7BD58CABE5-BBAE-4117-9ACB-C4950E31B6FB%7D





LSO 1-800-800-8984 www.lso.com

SHIP TO: RECEIVING ANA LAB CORP 2600 DUDLEY RD KILGORE, TX 75662 9039840551 From: KELLY KUKOWSKI AQUA TECH LABS 3512 MONTOPOLIS DR STE A AUSTIN, TX 78744 5123019559



LSO ECONOMY NEXT DAY 3:00 IN MOST AREAS

LATER IN REMOTE AREAS

PRINT DATE: 12/17/2020 REF 3: QUICKCODE: WEIGHT: 30,00LBS REF 1: 1D00V.0000 REF 2:

Lemb: — O

Therm#: 6443 Corr Fact: 0.0 C

Fold on above line and place shipping label in pouch on package. Please be sure the barcodes and a

and scanned. Shipping Instructions

- 1. Fold this page along the horizontal line above.
- 2. Place this Airbill in the shipping label pouch on the package you are shipping. Please be sure the barcodes and addresses can be read and scanned.
- 3. To locate a drop box near you, click on Find A Drop Box from the home page main menu.
- 4. To schedule a pickup, click on Request Pickup.

WARNING: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your Lone Star Overnight account number.

This label is valid for use for 3 months from the date printed. Use of expired labels may result in delayed billing and / or additional research charges. LIMIT OF

LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES OR RESIDENTIAL DELIVERIES.

Add to project 947923

CONTAINERS SUPPLIED:

1 Miles

Analysis Request for:

Sample ID: D040818-01

Sampled: 12/16/20 15:00

Matrix: Drinking Water

Laboratory ID >>

N 88846

Mn - EPA 200.8 R5.4



SHIPPED TO:

Kilgore, TX 75662 Phone: (903) 984-0551 Fax: (903) 984-5914

Ana-Lab Corp. (NELAP Cert. T104704201) 2600 Dudley Road

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.

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

) D040818-01 [F] - [SUB] ANA 0.25LP HNO3

(Split from -01B)

Chain-of-Custody & Analysis Request

944 - D040818

C-O-C #

T104704371

Page 13 of 16

Relinquished by: (print & sign) Lone Star Marianne R. Guzman celved by: (print & sign) Cooler Temperature (°C) Line below documents condition affective in lab (shipped to) listed above. Cooler 1 Kathy Terver And-Lab X A ATL-Austin Received in Lat Temp. Read (TR) × X ATL-Bryan Corrected Temp. (CT) Cooler 10 AQU5 Z Y 03 N A Sampler Thermometer ID 12/30/20 0920 K02 12/29/20 Date Please email reports to: reporting@aqua-techlabs.com Please return cooler(s) to: Austin Facility 1630 Three Custody Sealed
Not Chilled Candition Good

Not Rec'd load Received load Sample info "X" all that apply 5 DAY TAT Contact Aqua-Tech Sample Custodian before running sample Need New 2010 MALs Abbreviations: DW - Drinking Water
NP - Non-Potable Water Aqua-Tech Comments and Special Instructions Tracking # and Temp See Attached for S-Solid CTU - Custody Trænsfer Unbroken StP - Sterlie Plastic
LP - Liter Plastic
LG - Liter Glass BRET

Page 1 of 1

948947 CoC Print Group 001 of 001

12/28/2020





LSO 1-800-800-8984 www.lso.com

SHIP TO: S/R ANA-LAB 2600 DUDLEY RD KILGORE, TX 75662 9039840551 From: NULL AQUA-TECH 635 PHIL GRAMM BLVD BRYAN, TX 77807 9797783707



LSO GROUND END OF BUSINESS DAY DELIVERY

PRINT DATE: 12/28/2020 REF 3: QUICKCODE: WEIGHT: 12.00LBS REF 1: 1D00V.0000 REF 2:

12/30 0924 19 Date Time Tech Temp: 18,2//8,2 0

Therm#: 6443 Corr Fact: 0.0 C

Fold on above line and place shipping label in pouch on package. Please be sure the barcodes and addresses can be read and scanned. Shipping Instructions

- 1. Fold this page along the horizontal line above.
- 2. Place this Airbill in the shipping label pouch on the package you are shipping. Please be sure the barcodes and addresses can be read and scanned.
- 3. To locate a drop box near you, click on Find A Drop Box from the home page main menu.
- 4. To schedule a pickup, click on Request Pickup.

WARNING: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your Lone Star Overnight account number.

This label is valid for use for 3 months from the date printed. Use of expired labels may result in delayed billing and / or additional research charges. LIMIT

OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES OR RESIDENTIAL DELIVERIES.

Report Page 14 of 16

Analysis Request for:

Sample ID: D040818-01

Sampled: 12/16/20 15:00

Matrix: Drinking Water

Laboratory ID >>

C E8876



Chain-of-Custody & Analysis Request

SHIPPED TO:

Kilgore, TX 75662 Ana-Lab Corp. (NELAP Cert. T104704201) 2600 Dudley Road

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.

Fax: (903) 984-5914 Phone: (903) 984-0551

> 944 - D040818 C-O-C #

T104704371

Report Page 15 of 16

Received by: (print & sign) Cerrier & Tracking Number: Relinquished by: (print & sign) _____ATL-Austin CONTAINERS SUPPLIED: Lone Star Marianne R. Guzman Mn - EPA 200.8 R5.4 Cooler Temperature (°C) Line below documents condition ay receipt in lab (shipped to) listed above. Kathy Terver American X A Turb Scan <1 NTA (0.6) Add to project 947923 N MORE Received in Lab Temp. Read (TR) N A X ATL - Bryan Corrected Temp. (CT) Cooler 10 AQU5 Z Y 03 EO Y Z Z (ATL indicates cooler number in parentheses for each container - only required if more than one cooler listed below.) Sampler Thermometer ID) D040818-01 [F] - [SUB] ANA 0.25LP HNO3 (Split from -01B) 2/29/20 150/20 0920 Date Please email reports to: reporting@aque-techlabs.com Please return cooler(s) to: Austin Facility 1630 T)me Received load eTU Condition Good Custody Sealed
Not Chilled Sample Info "X" all that apply Contact Aqua-Tech Sample Custodian before running sample Need New 2010 MALs **5 DAY TAT** Abbreviations: Dw - Drinking Weter
NP - Non-Potable Water Aqua-Tech Comments and Special Instructions Tracking # and Temp See Attached for S - Solid
LP - Liter Plestic
CTU - Custody Transfer Unbroken LG - Liter Glass StP - Sterile Plastic

BRET

Page 1 of 1

BRET

Austin Facility

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COLA-THCH LABORATORIES, INC. ATL - Bryan Facility. 635 Phil Gramm Blvd. Bryan, TX 77807 (979) 778-3707 Fax (979) 778-3193

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

SHIPPED TO:

Chain-of-Custody & Analysis Request

Ana-Lab Corp. (NELAP Cert. 7104704201) 2600 Dudley Road Kilgore, TX 75662 Phone: (903) 984-0551 Fax: (903) 984-5914

O-O-O

T104704371

944 - D040818

Page 1 of 1 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.

•		Ţ			•
	Please return cooler(s) to:			· · · · ·	Sele F
Sold Charles and Control of the Cont	reporting@aqua-techlabs.com) Thermometer (D	Corrected Temp. (CT)	} . Temp. Read (TR)	1 % 1
	Please email reports to:	o) ilsted above.	elpt in lab (shipped t	Line below documents condition ay/receipt in lab (shipped to) listed above.	Line below doc
Contact Adua-Tech Sample Custodian before numing sample	12/20/20 1920 Leondition Good		J		
5 DAY TAT	Date Time Received load		1	Kecelved in Lab	Received by: (print & sign)
	ZYO3 EOYZ Sample trio	Aaus	Cooler 16		Lone Star
CTU - Custody Transfer Unbroken LG - Liter Glass		Æ	22/		Carrier & Tracking Number:
Nata Nobreoteble water S - Solid	12/29/20 //e 3/) XINOTONING	(Buzman	Marianne R. Guzman
Abbreviations: Dw. Drinking Water	Date Time load	Sampler	X ATL-Bryan	m Art-Austin	rejinguistied by: (print) & sign)
	***************************************		land.		
				·	
		W	764762	Add to project 947923	Ac
		(")) ACTIVITY	N N NTIN / NOS JEIN)-
ATL indicates cooler number in parentheses for each container - only required if more than one cooler listed below.) () D040818-01 [F] - [SUB] ANA 0.25LP HNO3 [Split from -01B]	s cooler number in parentheses for each container - or) D040818-01 [F] - [SUB] ANA 0.25LP HNO3 [Split from -01B]	indicates cooler nur () D0408° (Sp)		CONTAINERS SUPPLIED: ()-BOADB18-D1-ESUBLANA CI SO4 0.251. NA < MURY	CONTAINERS SUPPLIED: ()-BOAO818-01[5]-[SUE [MA < AMA
	e artikla improprimenten remanten primera mina mina mina mana etteramina men etteramina manten manten inneren			R5.4	Mn - EPA 200.8 R5.4
Water Laboratory ID >> 10 CO Q2 C	Sampled: 12/16/20 15:00 Matrix: Drinking Water	18-01 Sampled:	Sample ID: D040818-01		Analysis Request for:

Report Page 16 of 16

Water Quality

Well No. 4



Email information for report date: 12/23/20 16:21

D040965

Apex Drilling

Attn: Michael Becker apexdrilling.becker@yahoo.com

PO Box 867 Marble Falls, TX 78654

****Attention Austin Laboratory Clients****
Aqua-Tech is excited to announce that our
Austin Laboratory is expanding and moving to a
new location!

We will close our current Austin Laboratory location on Friday, October 23, 2020 at 12:00 p.m. to begin the moving process and will re-open at our new location on Monday, October 26 at 8:00 a.m.

Austin Laboratory address as of October 26, 2020: 3512 Montopolis Drive Austin, TX 78744

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

CORPORATE OFFICE

635 Phil Gramm Boulevard Bryan, TX 77807

Phone: (979) 778-3707 Fax: (979) 778-3193



AUSTIN OFFICE

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

TCEQ DW Lab ID TX 239

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 required by the State of Texas.

DWP Accreditation 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.

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

June M. Brien

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@aqua-techlabs.com

www.agua-techlabs.com

Page 1 of 4 D040965_1 ATL 110720 FIN_ls 12 23 20 1621

CORPORATE OFFICE

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



AUSTIN OFFICE

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

Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

12/23/20

D040965

16:21

LEGACY HILLS NO4		Collected: 12/21/20 11:00 by CLIENT Received: 12/21/20 14:00 by Suzanne Rudd				<i>Type</i> Grab		<i>Matrix</i> Drinki	r ng Water	C-O-C # 40965-6	
Lab ID# D040965-01	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	12/21/20 16:25 KT	SM9223 B 2004	M122739	NEL
Escherichia coli (E.coli)	Absent	N/A		N/A	N/A	N/A	Austin	12/21/20 16:25 KT	SM9223 B 2004	M122739	NEL

				Micro	biologi	cal Analyses - Qualit					Log10 Co	omparison		
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Range	Control Limit	Batch	
Escherichia co	oli (E.coli) - SM9	223 B 2004												Austin
Blank	Absent	N/A		N/A	N/A	12/21/20 16:25 KT							M122739	
Total Coliforms	s - SM9223 B 20	04												Austin
Blank	Absent	N/A		N/A	N/A	12/21/20 16:25 KT							M122739	
					Samp	le Preparation Summ	ary				Exterr	nal		

		Sample Prepar	ation Sumr	mary					External Dilution	
Sample	Method	Prepared	Lab	Bottle	e Initial	Units	Final	Units	Factor	Batch
D040965-01										
Escherichia coli (E.coli) Total Coliforms	SM9223 B 2004 SM9223 B 2004	12/21/20 16:17 KT 12/21/20 16:17 KT	Austin Austin	A A	100 100	mL mL	100 100	mL mL	1 1	M122739 M122739

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AQUA-TECH LABORATORIES, INC.	hain-of-Custody a	and Analysis Red	quest			ch Laboratorie		Work Order / C-O-C
Client /Project:		MICO CONTROL C		· · · · · · · · · · · · · · · · · · ·	Austin 3512 Montopolis	Dr. 635 Phil	ryan Gramm Blvd.	126409656
Name DEX DRILL Address	~6 se	DW - Drinking Water NP - Non-Potable Water S - Solid	(+) Container Type P - Plastic G - Glass	T104704371			TX 77807 778.3707 puirements unless	Page of Z
Address City State	ZIP	CM - Custody Maintained	T - Teflon©	TX239		stated otherwise.	'	V-0023 R03
Phone /	Ta a		ken			Sample Custody		13 0/ 2: =
Email By relinguishing the san	nples listed below to Aqua-Tech, the clie	SUB - Subcontracted Analysis		Relinquished by	14	<u> </u>	Sampler Date Client Time	7.21.20
Samples will be analyzed by a method that is within Aqua-Te Tech's fields of accreditation will be subcontracted to a NEL	ech Laboratories' NELAC fields of accre	ditation. Analytes requiring a certifi			131		ATL Field Date	14.01 Custody Sealed
analytes not requiring accreditation will be analyzed by a column. The client approves all method modifications docum	mpendial method. If a specific method is	required, the client will note the m	ethod in the "Analysis Requested"	Received by			Client	lced / Refrig
	other methods are available on req	uest.		(print or sign)		No.	ATL Field	СМ/СТИ
Client Comments:	* Preservatives	Receip	ot in Lab	Relinquished by		KEIND	- Andrews	lced / Refrig
	1 < 6 °C (unfrozen)	Cooler ID :	CY C	(print & sign)		VC	ATL Field Time	см/сти
	2 H2SO4		2.6/ NK-/	Received by		<u> </u>	Client	lced / Refrig
	3 HCI	read / CT	4.6CT 1/	(print & sign)	All and the state of the state		ATL Field Time	□см/сти
	4 HNO3	Preservation Correct ?	YES NO YES NO	Relinquished by	and the state of t		Client	lced / Refrig
	5 Na2S2O3 07 (050)	Post Preservatives ?	YES NO YES NO	(print & sign)			ATL Field Time	CM / CTU / sealed
	6 NaOH	Thermometer ID:	764480	Received by	zanne Rud	8	Date 7	ZI-ZO Cond Good
	7	pH Paper ID :	755987	(print & sign)	Janne Kud	uld b	Time	Iced / Refrig
	Lab				0			
	Comments							
Field Sample ID	Start	End	Composite Sample		ntainer(s) lume _{Type} Preserv	B	NLY BELO	
(record field data for each sample in space below		Date Time	Type Matrix		iume _{Type} Preserve e in L) (+) ative(s)		S OR	DER SUBelow
Legacy 1/11/5 44	12.21.20 11:00	Prisone-strang.	Grab DW	0.1	5 8 15	CUT -	Sar D()	mple
Analysis Requested & Comments:	3041							01 /
mananaminimum taminimum ta	12.21.20 11:00		Grab DW		D I	(10)	Au D ^{Sar}	mple // 145
Analysis	7 2 2 3 17.02		DIAD DA.		Negri I		DU	40960174
Requested & Comments: SCC ATTOLG	(cf)						+++ '	Children IV
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Analysis		1	1				1	08-16-0
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Requested & Comments:			and a specified of developing the second	The same of the sa	-(847)			
							San	nple
Analysis Requested & Comments:				<u> </u>			12 may 1 mg 1 m	
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No. 7

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. Well numbers correspond to Attachment I

y Aquifer to provide adequate drinking water. sample will need to be collected and analyzed for the follow The water quality from each well will need to be assessed Upon com

- Chloride
- Conductivity
- Tuoride
- · Ton
- Nitrate (as nitrogen)
- Manganese
- Sulfate
- Total hardness
- Total Dissolved Solids (TDS)
- Presence/absence of total coliform bacteria

Email information for report date: 1/18/21 12:40

D040966

Apex Drilling

Attn: Michael Becker apexdrilling.becker@yahoo.com

PO Box 867 Marble Falls, TX 78654

****Attention Austin Laboratory Clients****
Aqua-Tech is excited to announce that our
Austin Laboratory is expanding and moving to a
new location!

We will close our current Austin Laboratory location on Friday, October 23, 2020 at 12:00 p.m. to begin the moving process and will re-open at our new location on Monday, October 26 at 8:00 a.m.

Austin Laboratory address as of October 26, 2020: 3512 Montopolis Drive Austin, TX 78744

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

CORPORATE OFFICE

635 Phil Gramm Boulevard Bryan, TX 77807

Phone: (979) 778-3707 Fax: (979) 778-3193



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

TCEQ DW Lab ID TX 239

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 required by the State of Texas.

DWP Accreditation 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.

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

June M. Brien

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@aqua-techlabs.com

www.agua-techlabs.com

Page 1 of 22 D040966_1 ATL 110720 FIN_ls 01 18 21 1240

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Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

1/18/21

D040966

12:40

LEGACY HILLS #4			2/21/20 11:00 by CLI 2/21/20 14:00 by Suz			<i>Type</i> Grab		<i>Matrix</i> Drinki	ng Water	C-O-C # 40965-6	
Lab ID# D040966-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
Total Dissolved Solids	2590	mg/L	C-02	25.0	100	100	Bryan	12/23/20 19:13 MRH	SM2540 C 2011	M122866	NEL
Nitrate as N (NO3N)	<0.0200	mg/L			0.0200	0.0200	Calc	12/30/20 11:19 KT	SM4500-NO3-F 20)11 [CALC]	NEL
Nitrite as N	<0.01	mg/L		0.002	0.002	0.01	Austin	12/22/20 09:09 KT	SM4500 NO2- B 2	2011 M122765	NEL
Nitrate/Nitrite as N	<0.02	mg/L		0.02	0.02	0.02	Bryan	12/30/20 11:19 EMT	SM4500-NO3-F 20	011 M123061	ANR
Total Hardness (EDTA) as CaCO3	1730	mg/L		1.00	10.0	10.0	Bryan	01/04/21 18:30 MRH	SM2340 C 2011	M123189	NEL
Fluoride	2.21	mg/L		0.04	0.04	0.10	Bryan	12/28/20 19:00 MRH	SM4500-F C 2011	M122948	NEL
pH, Lab	7.3	S.U.	Hold-03		N/A	N/A	Austin	12/23/20 11:19 KT	SM4500-H+ B 201	1 M122863	DWP
Temperature @ pH Analysis	23.2	Deg. C			N/A	N/A	Austin	12/23/20 11:19 KT	SM4500-H+ B 201	1 M122863	DWP
Specific Conductance (adjusted to 25.0°C)	3580	uS/cm		2.00	6.67	6.67	Bryan	01/05/21 14:30 CJO	SM2510 B 2011	M123224	DWP,NEL
Metals (Total)											
Iron	0.249	mg/L		0.002	0.002	0.010	Bryan	01/07/21 17:13 PNS	EPA 200.7 R4.4	M123187	NEL

Please see the attached subcontract report for subcontracted data.

	Explanation of Notes
C-02	Result confirmed by re-analysis.
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 OFFICE

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

Apex Drilling

Report Printed:

1/18/21 12:40

D040966

						Chemistry - Quality Co								
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
luoride - SM4500-	F C 2011													Bryan
Initial Cal Check	0.43	mg/L				12/28/20 19:00 MRH	0.428		100	90 - 110			2012295	
Blank	<0.10	mg/L		0.04	0.10	12/28/20 19:00 MRH							M122948	
LCS	0.83	mg/L		0.04	0.10	12/28/20 19:00 MRH	0.799		104	90 - 110			M122948	
LCS Dup	0.85	mg/L		0.04	0.10	12/28/20 19:00 MRH	0.799		106	90 - 110	2.38	6.23	M122948	
Matrix Spike	0.99	mg/L		0.04	0.10	12/28/20 19:00 MRH	0.799	0.16	104	78.1 - 125			M122948	
Matrix Spike Dup	1.00	mg/L		0.04	0.10	12/28/20 19:00 MRH	0.799	0.16	105	78.1 - 125	0.957	5.72	M122948	
MRL Check	0.10	mg/L		0.04	0.10	12/28/20 19:00 MRH	0.0999		98.8	73.4 - 118			M122948	
Nitrate/Nitrite as N	- SM4500-N	IO3-F 2011												Brya
Initial Cal Check	1.37	mg/L				12/30/20 11:19 EMT	1.40		98.2	90 - 110			2012322	
Low Cal Check	0.02	mg/L				12/30/20 11:19 EMT	0.0200		120	70 - 130			2012322	
Blank	<0.02	mg/L		0.02	0.02	12/30/20 11:19 EMT							M123061	
LCS	0.50	mg/L		0.02	0.02	12/30/20 11:19 EMT	0.500		99.2	91.3 - 109			M123061	
LCS Dup	0.50	mg/L		0.02	0.02	12/30/20 11:19 EMT	0.500		101	91.3 - 109	1.70	6.8	M123061	
Matrix Spike	0.52	mg/L		0.02	0.02	12/30/20 11:19 EMT	0.500	0.02	99.0	94.7 - 117			M123061	
Matrix Spike Dup	0.52	mg/L		0.02	0.02	12/30/20 11:19 EMT	0.500	0.02	99.7	94.7 - 117	0.700	8.65	M123061	
MRL Check	0.02	mg/L		0.02	0.02	12/30/20 11:19 EMT	0.0200		120	70 - 130			M123061	
Nitrite as N - SM45	00 NO2- B	2011												Austi
Blank	<0.01	mg/L		0.002	0.01	12/22/20 09:09 KT							M122765	
LCS	0.08	mg/L		0.002	0.01	12/22/20 09:09 KT	0.0800		102	90 - 110			M122765	
LCS Dup	0.08	mg/L		0.002	0.01	12/22/20 09:09 KT	0.0800		102	90 - 110	0.431	8.12	M122765	
Matrix Spike	0.08	mg/L		0.002	0.01	12/22/20 09:09 KT	0.0800	<0.01	95.8	70.6 - 117			M122765	
Matrix Spike Dup	0.08	mg/L		0.002	0.01	12/22/20 09:09 KT	0.0800	<0.01	94.9	70.6 - 117	0.923	8.18	M122765	
MRL Check	0.01	mg/L		0.002	0.01	12/22/20 09:09 KT	0.0100		101	70 - 130			M122765	
pH, Lab - SM4500-	H+ B 2011													Austi
Duplicate	7.3	Std Units				12/23/20 11:19 KT		7.3			0.274	1.18	M122863	
Reference	6.9	Std Units				12/23/20 11:19 KT	6.86		100	95 - 105			M122863	
Reference	9.2	Std Units				12/23/20 11:19 KT	9.18		99.7	95 - 105			M122863	
Reference	6.9	Std Units				12/23/20 11:19 KT	6.86		101	95 - 105			M122863	
Reference	9.2	Std Units				12/23/20 11:19 KT	9.18		100	95 - 105			M122863	

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

Apex Drilling

Report Printed:

1/18/21 12:40

D040966

				G	Seneral C	Chemistry - Quality Co	ontrol							
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
pecific Conducta	ance (adjust	ed to 25.0°C) -	SM2510 B 2011											Bryan
Initial Cal Check	513	uS/cm				01/05/21 14:30 CJO	484		106	90 - 110			2101024	
Blank	<2.00	uS/cm		2.00	2.00	01/05/21 14:30 CJO							M123224	
Duplicate	829	uS/cm		2.00	2.00	01/05/21 14:30 CJO		824			0.605	2	M123224	
LCS	1360	uS/cm		2.00	2.00	01/05/21 14:30 CJO	1410		96.1	90 - 110			M123224	
Total Dissolved So	olids - SM25	40 C 2011												Bryan
Blank	<25.0	mg/L		25.0	25.0	12/23/20 19:13 MRH							M122866	
Duplicate	2600	mg/L		100	100	12/23/20 19:13 MRH		2590			0.154	9.13	M122866	
Reference	420	mg/L		100	100	12/23/20 19:13 MRH	500		84.0	81 - 121			M122866	
Total Hardness (E	DTA) as CaC	CO3 - SM2340 (C 2011											Bryan
Initial Cal Check	53.5	mg/L				01/04/21 18:30 MRH	54.4		98.4	85 - 115			2101013	
Blank	<1.00	mg/L		1.00	1.00	01/04/21 18:30 MRH							M123189	
Duplicate	11.1	mg/L		1.00	1.00	01/04/21 18:30 MRH		11.1			0.00	9.52	M123189	
LCS	102	mg/L		1.00	1.00	01/04/21 18:30 MRH	100		102	90 - 110			M123189	
LCS Dup	100	mg/L		1.00	1.00	01/04/21 18:30 MRH	100		100	90 - 110	2.00	6.47	M123189	
Matrix Spike	110	mg/L		1.00	1.00	01/04/21 18:30 MRH	100	11.1	99.0	87.6 - 111			M123189	
MRL Check	4.04	mg/L		1.00	1.00	01/04/21 18:30 MRH	4.00		101	70 - 130			M123189	
					Metals	(Total) - Quality Cont	trol							
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Iron - EPA 200.7 R	4.4													Bryan
Blank	<0.010	mg/L		0.002	0.010	01/07/21 16:36 PNS							M123187	
LCS	0.946	mg/L		0.002	0.010	01/07/21 16:39 PNS	1.00		94.6	84.5 - 115.4			M123187	
LCS Dup	0.955	mg/L		0.002	0.010	01/07/21 16:42 PNS	1.00		95.5	84.5 - 115.4	1.04	20	M123187	
Duplicate	<0.010	mg/L	J (0.008)	0.002	0.010	01/07/21 16:46 PNS		<0.010			2.56	20	M123187	
Matrix Spike	0.968	mg/L		0.002	0.010	01/07/21 16:49 PNS	1.00	0.008	96.0	69.5 - 130.4			M123187	
				Pre	paration	Procedures - Quality	Control							
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
		00	. 10100	52	-542	,200	Amount	Result	,,,,		-, ,, ,	Limit	Daton	
Turbidity - SM2130	0 B 2011													Bryan

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Apex Drilling

Report Printed:

1/18/21 12:40

D040966

		Sample Prep	aration Sum	mary					External Dilution	
Sample	Method	Prepared	Lab	Bottle	e Initial	Units	Final	Units	Factor	Batch
D040966-01										
Fluoride	SM4500-F C 2011	12/28/20 19:00 MRH	Bryan	Α	25.0	mL	25.0	mL	1	M122948
Iron	EPA 200.7 R4.4	1/7/21 12:30 BLC	Bryan	С	10.0	mL	10.2	mL	1	M123187
Nitrate/Nitrite as N	SM4500-NO3-F 2011	12/30/20 9:21 EMT	Bryan	D	10.0	mL	10.0	mL	1	M123061
Nitrite as N	SM4500 NO2- B 2011	12/22/20 9:09 KT	Austin	Е	25.0	mL	25.0	mL	1	M122765
pH, Lab	SM4500-H+ B 2011	12/23/20 11:19 KT	Austin	В	50.0	mL	50.0	mL	1	M122863
Sample Acidified to pH<2 in Lab	N/A	12/22/20 4:51 SR	Bryan	С	100	mL	100	mL	1	M122743
Specific Conductance (adjusted to 25.0	0°C) SM2510 B 2011	1/5/21 14:30 CJO	Bryan	Α	15.0	mL	50.0	mL	1	M123224
Temperature @ pH Analysis	SM4500-H+ B 2011	12/23/20 11:19 KT	Austin	В	50.0	mL	50.0	mL	1	M122863
Total Dissolved Solids	SM2540 C 2011	12/23/20 19:13 MRH	Bryan	Α	25.0	mL	100	mL	1	M122866
Total Hardness (EDTA) as CaCO3	SM2340 C 2011	1/4/21 18:30 MRH	Bryan	С	5.00	mL	50.0	mL	1	M123189
Turbidity	SM2130 B 2011	1/4/21 13:30 BLC	Bryan	С	10.0	mL	10.0	mL	1	M123183
D040966-01RE1										
Sample Acidified to pH<2 in Lab	N/A	12/22/20 4:51 SR	Bryan	D	1.00	mL	1.00	mL	1	M122742

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AQUA-TECH CI	nain-of-Cus	tody a	nd Analysi	s Requ	ıest		4				h Labor			Worl	k Order / C-O-C
Client /Project:								Diff.		Austin Montopolis D	r	Brya 635 Phil Gra		124	1409656
Name ADE / MAILLI	~/		DW - Drinking Wate		(+) Contair		-	704074	Aus	tin, TX 78744 2.301.9559		Bryan, TX 979.778.	77807	NA-K Page	100 7
Address City State Phone /	0	ons	NP - Non-Potable V S - Solid	Vater	P - Plastic G - Glass		1	704371 (239		meet all acci	editation/certif	ication requir			/-0023 R03
City State	ZIP	Definitions	CM - Custody Main CTU - Custody Trans		T - Teflon®	٥					stated otherwi				7 00201100
		De	CT - Corrected Tell SUB - Subcontracte	mperature			Relinquished	/	<u> </u>				mpler Date	12.26.7	(U Iced / Refrig
Email By relinquishing the samp			nt agrees to the followi	ng terms.			by (print & sign)	ME	A			Ci	ent Time	, S. S. S.	Custody
Samples will be analyzed by a method that is within Aqua-Tecl Tech's fields of accreditation will be subcontracted to a NELAC	certified lab that is certif	fied for that m	ethod. Clients will be	notified of the s	ubcontract lab's	details. Other							Date	1.9	Sealed
analytes not requiring accreditation will be analyzed by a comp column. The client approves all method modifications docume	rendar method, if a speci- nted by Aqua-Tech or the other methods are avai	subcontract	lab. A current list of A	note the metho qua-Tech's NE	LAC fields of acc	is Requested" creditation and	Received by (print & sign)					A1	Time		CM/CTU
Client Comments:	* Preservati		651.	Receipt i	in Lab		Relinquished			***************************************	***************************************		Date	Section 1985	lced / Refrig
	1 < 6 °C (unf	rozen)	Coole	ID:	17	/www.	by (print & sign)			. 1	al		L Field Time		Псм/сти
	2 H2SO4		Temperature (°C): 12.1	6/	JKC /	Booking			N			Date Date		Iced / Refrig
III—	3 HCI	***************************************	remperature (, , ,	6CT	W/	Received by (print & sign)		-44	The state of the s	p-	AT	L Field Time		□см/сти
and the state of t	4 HNO3		Preservation Corr	ect ? YES	A STATE OF THE PARTY OF THE PAR	YES NO	Relinquished		and the second second			Cli	Date	WINE FOR ENGLANDED AND THE STREET	lced / Refrig
	5 Na2S2O3 ()	7 6906	Post Preservativ	es ? YES	5 NO /	YES NO	by (print & sign)	and the same of th				AT	L Field Time		CM / CTU /
electronic de la constante de	6 NaOH	1 18/1/19	Thermometer	ID: 07	1644	20	Received by	Siza	ทกลา	Rudo	1		Date	2.21.20	Cond Good
Telephone and the second and the sec	7		pH Paper	ID: 07	75598	7	(print & sign)			-R	الهال	₩ La	Time	1400	Iced / Refrig
AND THE PROPERTY OF THE PROPER	Lab			L			A				***************************************			<u> </u>	
C	omments								All Parks						
Field Sample ID	Start		End		Composite	Sample		Contain	er(s)	ı	LAB	USE ONI		W (initials	K/L)
(record field data for each sample in space below)	Date	Time	Date	Time	Туре	Matrix	Bottle Count	Volume (Size in L)	Type (+)	Preserv- ative(s) *	Cooler ID	pH Check		ORK S	ll Belon
Lessey 1/1/15 44	12.21.20	11:00	Printer and Control		Grab	DW	i i	0.15	817	1.5	COT	Zilling series.	S	ample UUM	
Analysis Requested &	-conservations							*		,				ol P	
Comments:	01.1	-	economic and make more than executive.			nagana sana sana sana sana sana sana									
Legary Hills#4	12.21.20	1/:00	Nagarania -		Stab	DM	October	I L	P		CUT	A8424	Aubs	imple	6 ME
Analysis Requested &										***************************************			D) 409T	CONTRACT
Requested & Comments: SCC QT FOCH	<u> </u>	or on the second se		inas or our new section process			daviat consumer was a resolution and			NON-MARKACHINO NICOLUNIO CON ANCIONE				90X-1	array 10
													s	imple §	SL 12-222
Analysis Requested &	Mileton & Berling and Aller Andrews Street Control of Mileton Control						^*************************************								
Comments:	And the second s				ndendonáriem nacimiento de composito								***************************************		
			The state of the s	" o thing are with you had been also be taken	**************************************		ž.	A					s	imple	
Analysis Requested &					and the state of t	Control of the state of the sta	/	452							
Comments:					ATTENDED	_	740. J.		V				Q.	mple	
										The second section of the second	No. of Concession, Name of Street, Name of Str			mpie	
Analysis						7	7				-	~			
Requested & Comments:															

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No. 7

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. Well numbers correspond to Attachment I

y Aquifer to provide adequate drinking water. sample will need to be collected and analyzed for the follow The water quality from each well will need to be assessed Upon com

- Chloride
- Conductivity
- · TIOTIGE
- Ton
- Nitrate (as nitrogen)
- Manganese
- Sulfate
- Total hardness
- Total Dissolved Solids (TDS)
- Presence/absence of total coliform bacteria

Page 1 of 1

3

5



AQU1-G

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

TABLE OF CONTENTS

948410

This report consists of this Table of Contents and the following pages:

	Total Pages:	14
948948_r99_09_CoC1_of_1	Ana-Lab CoC AQU1 948948_1_of_1	6
948948_r10_05_ProjectQC	Ana-Lab Project P:948948 C:AQU1 Project Quality Control Groups	2
948948_r03_06_M_ProjectTRRP	Ana-Lab Project P:948948 C:AQU1 Project TRRP Results Report for Class M	2
948948_r03_06_I_ProjectTRRP	Ana-Lab Project P:948948 C:AQU1 Project TRRP Results Report for Class I	2
Report Name 948948_r03_03_ProjectResults	Description Ana-Lab Project P:948948 C:AQU1 Project Results t:304	Pages 2
S		



Report Page 1 of 15

AQU1-G

Aqua-Tech Laboratories

635 Phil Gramm Blvd. Bryan, TX 77807-9104

John Brien



Page 1 of 2

3 4 5

6

Project 948948

Printed:

01/07/2021

948410

Results

				Sample	Results					
	1950858	D040966-01						Received:	12/23	3/2020
D	rinking Water		Collected by: Client	•	ch Laboratori		PO:			
Sup	plement to Test	Report 1949829	Taken: 12/21/2020	1	1:00:00					
E	PA 200.8 5.4		Prepared:	932626	01/06/2021	10:54:00	Analyzed 932626	01/06/2021	10:54:00	SAI
	Parameter		Results	Un	its RL		Flags	CAS		Bottle
ELAC	Manganese,	Total	0.00548	mg	L 0.001			7439-96-5		02
E	PA 300.0 2.1		Prepared:	931521	12/23/2020	16:02:00	Analyzed 931521	12/23/2020	16:02:00	ATI
	Parameter		Results	Un	its RL		Flags	CAS		Bottle
ELAC	Chloride		42.2	mg	L 3.00					01
E	PA 300.0 2.1		Prepared:	931693	12/28/2020	12:51:00	Analyzed 931693	12/28/2020	12:51:00	ATI
	Parameter		Results	Un	its RL		Flags	CAS		Bottle
IELAC	Sulfate		1810	mg	L 10.0					01
			S	ample Pr	eparation					
	1950858	D040966-01						Received:	12/23	3/2020
			12/21/2020							
			Prepared:		12/28/2020	12:04:56	Calculated	12/28/2020	12:04:56	CAI
	Environment	al Fee (per Project)	Verified							
C	ooler Return		Prepared:		12/29/2020	15:00:00	Analyzed	12/29/2020	15:00:00	MG.
		r/No bottles Require	Returned							



Report Page 2 of 15

Ana-Lab Corp. 2600 Dudley Rd. Kilgore, Texas 75662 P.O. Box 9000 Kilgore, Texas 75663 Office: 903-984-0551 * Fax: 903-984-5914

AQU1-G

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



Page 2 of 2



Printed: 01/07/2021

Qualifiers:

We report results on an As Received or wet basis unless marked Dry Weight. Unless otherwise noted, testing was performed at Ana-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No LA026, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-068-0. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation.

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.

U

Trey Peery, MA, Project Manager



Report Page 3 of 15



Page 1 of 2



01/07/2021 Printed

948410

Aqua-Tech Laboratories John Brien 635 Phil Gramm Blvd.

Bryan, TX 77807-9104

AQU1

<u>CAS</u> Param	eter	Results	MDL	SDL	MQL	MQLAdj	Flag	Units	Target	Bottle	Dilute
Drinking Water		Ion Chromatography							EPA	300.0 2.1	
1950858 D04096	6-01										
		Collection:	12/21/2	020	11:00:00	Client			Received:	12/23/202	0
Supplement to Test Repo	ort 1949829										
Prepared:	931521										
				Analyzed:		931521	12	/23/20	16:02:00		
Chlori	de	42.2	0.0211	0.211	0.300	3.00		mg/L	250 Secondary Standard	01	10.00
Prepared:	931693										
				Analyzed:		931693	12	/28/20	12:51:00		
Sulfat	е	1810	0.0871	8.71	0.100	10.0		mg/L	250 Secondary Standard	01	100.00

MDL is Method Detection Limit (40 CFR 136 Appendix B) MQL is the Method Quantitation Limit and corresponds to a low standard 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)





Page 2 of 2



Printed 01/07/2021

948410

AQU1

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

Qualifiers:

We report results on an As Received or wet basis unless marked Dry Weight. Unless otherwise noted, testing was performed at Ana-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No LA026, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-068-0. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation.

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.

Trey Peery, MA, Project Manager





Page 1 of 2



01/07/2021 Printed

948410

<u>CAS</u> Parameter Results MDL SDL MQL MQLAdj Dilute Flag Units Target **Bottle Drinking Water** Metals EPA 200.8 5.4 1950858 D040966-01 Collection: Received: 12/21/2020 11:00:00 Client 12/23/2020 Supplement to Test Report 1949829 932626 Prepared: 932626 Analyzed: 1/6/21 10:54:00 7439-96-5 Manganese, Total 0.00548 0.000168 0.000168 0.001 0.001 mg/L 0.050 02 1.00 Secondary Standard

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

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

AQU1

Aqua-Tech Laboratories

635 Phil Gramm Blvd. Bryan, TX 77807-9104

John Brien

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-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No. LA026, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-o68-o. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation. 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.



NELAP-accredited #T104704201-20-17

AQU1

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

Trey Peery, MA, Project Manager



Page 2 of 2

Project 948948

Printed 01/07/2021 **948410**



Quality Control



AQU1-G

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



Printed 01/07/2021

Analytical Set	931521									EPA:	300.0 2.
				E	Blank						
<u>Parameter</u>	PrepSet	Reading	MDL	MQL	Units			File			
Chloride	931521	0.0267	0.0211	0.100	mg/L			121898508			
					CCV						
<u>Parameter</u>		Reading	Known	Units	Recover%	Limits%		File			
Chloride		10.2	10.0	mg/L	102	90.0 - 110		121898505			
Chloride		10.4	10.0	mg/L	104	90.0 - 110		121898522			
				LC	S Dup						
<u>Parameter</u>	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	931521	4.98	4.97		5.00	85.0 - 110	99.6	99.4	mg/L	0.201	20.0
				ı	MSD						
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	1949752	216	216	165	50.0	80.0 - 120	102	102	mg/L	0	20.0
Analytical Set	931693									EPA :	300.0 2.
,				E	Blank						
<u>Parameter</u>	PrepSet	Reading	MDL	MQL	Units			File			
Sulfate	931693	ND	0.0871	0.100	mg/L			121901916			
					CCV						
<u>Parameter</u>		Reading	Known	Units	Recover%	Limits%		File			
Sulfate		10.1	10.0	mg/L	101	90.0 - 110		121901912			
Sulfate		9.27	10.0	mg/L	92.7	90.0 - 110		121901924			
				LC	S Dup						
<u>Parameter</u>	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Sulfate	931693	5.08	5.13		5.00	88.0 - 110	102	103	mg/L	0.979	20.0
				ı	MSD						
Parameter Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Sulfate	1949968	15.2	15.1	7.42	10.0	80.0 - 120	77.8 *	76.8 *	mg/L	1.29	20.0
Analytical Set	932626									EPA 2	200.8 5.
					CCV						
<u>Parameter</u>		Reading	Known	Units	Recover%	Limits%		File			
Manganese, Total		0.0518	0.05	mg/L	104	90.0 - 110		121917958			
Manganese, Total		0.0515	0.05	mg/L	103	90.0 - 110		121917969			
Manganese, Total		0.051	0.05	mg/L	102	90.0 - 110		121917979			
					ICV						
<u>Parameter</u>		Reading	Known	Units	Recover%	Limits%		File			
Manganese, Total		0.0512	0.05	mg/L	102	90.0 - 110		121917952			



Report Page 8 of 15

Quality Control



Page 2 of 2

Project 948948

Printed 01/07/2021

AQU1-G

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

LDR

<u>Parameter</u>	Reading	Known	Units	Recover%	Limits%	File	
Manganese, Total	1.02	1	mg/L	102	90.0 - 110	121917957	
			MRI	L Check			
<u>Parameter</u>	Reading	Known	Units	Recover%	Limits%	File	
Manganese, Total	0.00102	0.001	mg/L	102	25.0 - 175	121917953	

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

Blank - Method Blank; CCV - Continuing Calibration Verification; ICV - Initial Calibration Verification; LDR - Linear Dynamic Range Standard; MRL Check - Minimum Reporting Limit Check Std



Report Page 9 of 15

CONTAINERS SUPPLIED:

) D040966-01 [B] - U 0.125LP [Split from -01A]

Chloride - EPA 300.0 Analysis Request for:

Sample ID: D040966-01

Sampled: 12/21/20 11:00

SO4 DW - EPA 300.0

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

ATL - Bryan Facility: 635 Phil Gramm Blvd. Bryan, TX 77807 (979) 778-3707 Fax (979) 778-3193 LABORATORIES, INC. ATL - Austin Facility: 3512 Montopolis Drive Austin, TX 78744 (512) 301-9559 Fax (512) 301-9552

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) 984-5914

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.

C-O-C#

499 - D040966

T104704371

Page 10 of 15

					İ		
	ŧy	ustin Facili	≱		N/A	N/A	N/A
	r(s) to:	return coole	Please				Cooler 1
	abs.com	@aqua-techi	reporting	Thermometer (D	Corrected Temp. (CT)	Temp. Read (TR)	Cooler Temperature (°C)
	ts to:	e email repor	Pleas	listed above.	ipt in lab/(shipped to)	ents condition at rece	Line below docum
	Condition Good Not Rec'd load	0900	12/25/20	1/2/1//	* Kaus	moson Anotat	Royshourn Tho
5 DAY TAT	CTI-	Time	Date	<u>_</u>		Received in Lab	Received by: (print & sign)
Aqua-Tech	Sample Info "X" all that apply		MSS	AQU1 - Z1000I	Cooler 1:	7	Lone Star
							Carrier & Tracking Number:
	Not Chilled	8:33	12/22/20		}	SES.	Christie Tonnu
Abbreviations:	Custody Sealed	Time	Date	Sampler	ATL-Bryan	ATL-Austin	Relinquished by: (print & sign)
]]		
	Abbreviat Aqua 5 DAY TAT	Abb Titled Sample into X Custody Sealed Not Chilled Sample into X aff that exply Condition Good Not Recid load Ports to: Chiabs.com Oler(s) to:	Date Date Time Custody Sealed Not Childed Sarple into "X" af that apply Time Please email reports to: reporting@aqua-techlabs.com Please return cooler(s) to: Austin Facility Abb	Date 12/22/20 8:33 Custody Sealed Not Chilled Date Time Please email reports to: reporting@aqua-techiabs.com Please return cooler(s) to: Austin Facility Austin Facility	Cooler 1: AQU1 - Z1000MSS Cooler 1: AQU1 - Z1000MSS Date Time Control Sample into Not Chiled Flease email reports to: reporting@aqua-techiabs.com Please return cooler(s) to: N/A Austin Facility	ATL-Austin ATL-Bryan Sampler Date Time Custody Sealed 12/22/20 8:33 Not Chilled Cooler 1: AQU1 - Z1000MSS Cooler 1: AQU1 - Z1000MSS Time Condition at receipt in lab/(shippe) to listed dove? Temp. Read (IR) Corrected Temp. (CT) Themometer ID Please email reports to: Temp. Read (IR) Corrected Temp. (CT) Themometer ID Please return cooler(s) to: N/A N/A N/A N/A Austin Facility	

Tracking # and Temp See Attached for

Page 1 of 1

3 4 5

Airbill No. Z1000MSS

LSO 1-800-800-8984 www.iso.com

https://www2.lso.com/weblabels/?labelsize=0&combinedlabel=1&sessionkey=%7B91D48202-7B9D-40A4-8EDC-FC5F3D3D75E2%7D

RECEIVING ANA LAB CORP SHIP TO:

2600 DUDLEY RD KILGORE, TX 75662 9039840551

CHRISTIE TONNU AQUA TECH LABS 3512 MONTOPOLIS AUSTIN, TX 78744 5123019559

LIS DRIVE

PRINT DATE: 12/22/2020 REF 3: QUICKCODE: WEIGHT: 20.00LBS

REF 1: 1D00V.0000 REF 2:

3:00 IN MOST AREAS LATER IN REMOTE AREAS LSO ECONOMY NEXT DAY

S S O

Therm#: 6443 Corr Fact: 0.0 C

Fold on above line and place shipping label in pouch on package. Please be sure the barcodes and addresses can be read and scanned. Shipping Instructions

. Place this Airbill in the shipping label pouch on the package you are shipping. Please be sure the barcodes and addresses can be read Fold this page along the horizontal line above.

To locate a drop box near you, click on Find A Drop Box from the home page main menu.

and scanned.

To schedule a pickup, click on Request Pickup.

WARNING: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your

This label is valid for use for 3 months from the date printed. Use of expired labels may result in delayed billing and / or additional research charges. LIMIT OF LIABILITY: We are not responsible for claims in

excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all hability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES OR RESIDENTIAL DELIVERIES.

Report Page 11 of 15

Refinquished by: (print & sign)

ATL-Austin

X ATL-BYA

Sampler

12/29/20 Date

1630

X Custody Sealed
X Not Chilled

FILT.

6

Abbreviations: DW - Drinking Water NP - Non-Potable Water

Marianne R. Guzman

eceived by: (print & sign) Lone Star

Received in Lab

Cooler 1: CAQU5

0

3E012

Semple Info.
"X" all that apply Received Iced

Aqua-Tech Comments and Special Instructions

CTU - Custody Transfer Unbroken

LP - Liter Plastic LG - Liter Glass

S-Solid

Time

Cooler Temperature (°C)

Cooler 1 N N

Line below documents condition at receipt in lab (shipped to) listed above.

Temp. Read (TR)

Corrected Temp. (CT)

Thermometer ID

Please email reports to: reporting@aqua-techlabs.com Please return cooler(s) to: Austin Facility

Hof-Red'd load Tega 2

Need New 2010 MALs

5 DAY TAT

Contact Aqua-Tech Sample Custodian before running sample

Tracking # and Temp

BRET

See Attached for

₹ K

X X

Kathy Tarver Ana-Lab



SHIPPED TO:

Ana-Lab Corp. (NELAP Cert. T104704201) 2600 Dudley Road

Phone: (903) 984-0551 Fax: (903) 984-5914 Kilgore, TX 75662

C-O-C#

418 - D040966

Page 1 of 1

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.

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

) D040966-01 [F] - [SUB] ANA 0.25LP HNO3

Split from -01A]

Mn - EPA 200.8 R5.4

Analysis Request for:

Sample ID: D040966-01

Sampled: 12/21/20 11:00

Matrix: Drinking Water

Laboratory ID >>

6886A6

CONTAINERS SUPPLIED: () D040966-01 [B] - U 0.125LP--[Spitt from -01A] MANUS T

Add to project 948410 lub scan not done

Chain-of-Custody & Analysis Request

T104704371

of 15 Page 12 of

Page 19 of 22 D040966 1 ATL 110720 FIN Is 01 18 21 1240

948948 CoC Print Group 001 of 001

12/28/2020





LSO 1-800-800-8984 www.lso.com

SHIP TO: S/R ANA-LAB 2600 DUDLEY RD KILGORE, TX 75662 9039840551 From: NULL. AQUA-TECH 635 PHIL GRAMM BLVD BRYAN, TX 77807 9797783707



LSO GROUND

END OF BUSINESS DAY DELIVERY

PRINT DATE: 12/28/2020 REF 3: QUICKCODE: WEIGHT: 12.00LBS REF 1: 1D00V.0000 REF 2:

19/30 0924 1G Date Time Tech Temp: 18,2/18,2

Therm#: 6443 Corr Fact: 0.0 C

Fold on above line and place shipping label in pouch on package. Please be sure the barcodes and addresses can be read and scanned. Shipping Instructions

- 1. Fold this page along the horizontal line above.
- 2. Place this Airbill in the shipping label pouch on the package you are shipping. Please be sure the barcodes and addresses can be read and scanned.
- 3. To locate a drop box near you, click on Find A Drop Box from the home page main menu.
- 4. To schedule a pickup, click on Request Pickup.

WARNING: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your Lone Star Overnight account number.

This label is valid for use for 3 months from the date printed. Use of expired labels may result in delayed billing and / or additional research charges. LIMIT

OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES OR RESIDENTIAL DELIVERIES.

Report Page 13 of 15

CONTAINERS SUPPLIED:

) D040966-01 [B] - U 0.125LP-

-{8pttt from -01AJ

TANANAS I

Trub scan not done Add to project 948410

Analysis Request for:

Sample ID: D040966-01

Sampled: 12/21/20 11:00

Matrix: Drinking Water

Laboratory ID >>

6886A6

Mn - EPA 200.8 R5.4



Chain-of-Custody & Analysis Request

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

Ana-Lab Corp. (NELAP Cert. T104704201)

SHIPPED TO:

Phone: (903) 984-0551 Fax: (903) 984-5914

2600 Dudley Road Kilgore, TX 75662

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.

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

) D040966-01 [F] - [SUB] ANA 0.25LP HNO3

[Spllt from -01A]

418 - D040966

C-O-C#

T104704371

Report Page 14 of 15

Page 1 of 1

Add to project 948410 lub scan not done

Relinquished by: (print & sign)

ATL-Austin

ATL-Brya

Sampler

12/29/20

1630

듦

Load

Custody Sealed

Not Chilled

Abbreviations: DW - Drinking Weter NP - Non-Potable Weter

S-Solid

CTU - Custody Transfer Unbroken

LG - Liter Glass StP - Sterlie Plastic

Received by: (print & sign)

Redelved in Lab

Cocier Temperature (°C)

Cooler 1 K

X.

N/A

Line below documents condition at receipt in life (shipped to) listed shove.

Temp. Read (TR)

Corrected Temp. (CT)

Ol retemograph 1

Please email reports to: reporting@aqua-techlabs.com Please return cooler(s) to: Austin Facility

Not Rea'd load

Contact Aqua-Tech Sample Custodian before running sample

Tracking # and Temp

BRET

See Attached for

Tably Taiver And-Lab,

Carrier & Tracking Number:

Cooler 1: CAQUE

Y03E0YZ

Sample lifo
"X" all that apply Received load

Aqua-Tech Comments and Special Instructions

eug

6 DAY TAT

Need New 2010 MALs

Lone Star

Marianne R. Guzman

CONTAINERS SUPPLIED:

) D040966-01 [B] - U 0.125LP-[Spirt from -01A] NA

まるまと

Mn - EPA 200.8 R5.4 Analysis Request for:

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 Kilgore, TX 75662 Phone: (903) 984-0551 Fax: (903) 984-5914

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.

Sample ID: D040966-01 Sampled: 12/21/20 11:00 Matrix: Drinking Water

Laboratory ID >>

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

) D040966-01 [F] - [SUB] ANA 0.25LP HNO3

[Split from -01A]

418 - D040966

いっつの#

T10470437

Chain-of-Custody & Analysis Request

Report Page 15 of 15

Page 22 of 22 D040966 1 ATL 110720 FIN Is 01 18 21 1240

Page 1 of 1

Water Quality

Well No. 5



Email information for report date: 12/30/20 15:46

D041249

Apex Drilling

Attn: Michael Becker apexdrilling.becker@yahoo.com

PO Box 867 Marble Falls, TX 78654

****Attention Austin Laboratory Clients****
Aqua-Tech is excited to announce that our
Austin Laboratory is expanding and moving to a
new location!

We will close our current Austin Laboratory location on Friday, October 23, 2020 at 12:00 p.m. to begin the moving process and will re-open at our new location on Monday, October 26 at 8:00 a.m.

Austin Laboratory address as of October 26, 2020: 3512 Montopolis Drive Austin, TX 78744

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

CORPORATE OFFICE

635 Phil Gramm Boulevard Bryan, TX 77807

Phone: (979) 778-3707 Fax: (979) 778-3193



AUSTIN OFFICE

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

TCEQ DW Lab ID TX 239

Fax: (512) 301-9552

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RPD Relative Percent Difference.

% R Percent Recovery.

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includes all sample preparations, dilutions and / or concentrations.

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MDL The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific

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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

June M. Brien

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@aqua-techlabs.com

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Page 1 of 4 D041249_1 ATL 110720 FIN_Is 12 30 20 1546

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Fax: (512) 301-9552

Report Printed:

Apex Drilling

Analytical Report

ort Printed: 12/3

12/30/20 15:46 D041249

LEGACY HILLS NO5			12/28/20 12:00 by CLI 12/28/20 14:00 by Chr			<i>Type</i> Grab		<i>Matrix</i> Drinki	ng Water	C-O-C # 41249-52	
Lab ID# D041249-01	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	12/28/20 16:52 KT	SM9223 B 2004	M122959	NEL
Escherichia coli (E.coli)	Absent	N/A		N/A	N/A	N/A	Austin	12/28/20 16:52 KT	SM9223 B 2004	M122959	NEL

				Micro	biologi	cal Analyses - Quali	•				Log10 C	omparison		
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Range	Control Limit	Batch	
Escherichia col	i (E.coli) - SM92	223 B 2004												Austin
Blank	Absent	N/A		N/A	N/A	12/28/20 16:52 KT							M122959	
Total Coliforms	- SM9223 B 20	04												Austin
Blank	Absent	N/A		N/A	N/A	12/28/20 16:52 KT							M122959	

		Sample Prepar	ation Sumr	nary				External Dilution	
Sample	Method	Prepared	Lab	Bottle Initial	Units	Final	Units	Factor	Batch
D041249-01									
Escherichia coli (E.coli) Total Coliforms	SM9223 B 2004 SM9223 B 2004	12/28/20 16:46 KT 12/28/20 16:46 KT	Austin Austin	A 100 A 100	mL mL	100 100	mL mL	1 1	M122959 M122959

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• • • • • • • • • • • • • • • • • • • •											Au	stin		Bryan		141	24	7-54
Client /Project:		1 1		DIVI BOOK IN		·		**************************************	ALCOR.			ntopolis Dr. TX 78744	6	35 Phil Gramn Bryan, TX 77				2
e PEL DRILL.	M	6	1	DW - Drinking Wate NP - Non-Potable \		(+) Contain P - Plastic	er Type	T1047	04371			01.9559		979.778.37		Pag	je l	of 4
⊆ Address			ition	S - Solid		G - Glass T - Teflon©)	TX	239	Test resu	lts me		itation/certific ited otherwise	ation requirem e.	ents unic	ess	V-0023 F	R03
Address City State	Z	ZIP	£ .	CM - Custody Mair CTU - Custody Tran	sfer Unbroke	en						Sa	ımple Cu	stody				
Ö Phone / Email				CT - Corrected Te SUB - Subcontracte				Relinquished	11.4)	11_	1			Samp		12.28	3-20 E	Iced / Refrig
By relinquishing the sar Samples will be analyzed by a method that is within Aqua-Ti						ed mothed that is as	st within Agus	by (print & sign)	1-1	SEC	T	-9/		Clien	1 i ir	ne / 4 .	00 E	Custody Sealed
Tech's fields of accreditation will be subcontracted to a NEL	_AC certi	ified lab that is certifie	ed for that me	thod. Clients will be	notified of th	e subcontract lab's	details. Other							Clien	Da	ite		Iced / Refrig
analytes not requiring accreditation will be analyzed by a co column. The client approves all method modifications docur	mented b		subcontract la	ab. A current list of A				Received by (print & sign)						ATL	Field Tir	ne]см/сти
Client Comments:	-	* Preservativ			Receip	t in Lab	۲^,	Relinquished						Clier	t Da	ite		Iced / Refrig
	1	< 6 °C (unfro	ozen)	Coole	er ID : (10+	.57	by (print & sign)					. 51	LOTAN Clier	7 Field Ti	ne]см/сти
	2	H2SO4 0764	386	Temperature	CCV. A.	3/	R/	Received by	·				10	Clier	t Da	ate		lced / Refrig
	3	HCI			`	9.3	₹/	(print & sign)			_			ATL	Field Ti	me]см/сти
	4	HN03 0753	274	Preservation Co		P	ES NO	Relinquished			pot the second			Clier	t Di	ate		lced / Refrig
	5	Na2S2O3	4501	P ost Preservati	ves?	rEs) NO /	YES NO	by (print & eign)	Λ					ATL	Field Ti	me		J ^{CM} /CTU/ sealed
	6	NaOH		Thermomete		164480)	Received by	de	m)				D.	i 2/29	6/20	Cond Good
	7			рН Раре	er ID : N	155987	·	(print & sign)	chy	ict	٦ <i>(</i>	TOI	NNU	☑ Lab		T°407		CM / CTU
No. 100 (100 (100 (100 (100 (100 (100 (100	La	ih			10				774.14	1 5 1		0 10						
	Comm																	
Field Sample ID		Start		End		Composite	Sample		Conta	iner(s))		LAB	USE ONL	Y BEI	_OW (init	ials 🖰	打)
(record field data for each sample in space below	w)	Date	Time	Date	Time	Туре	Matrix	Bottle Count	Volun (Size in		ype (+)	Preserv- ative(s) *	Cooler ID	pH Check	SUB	WORK ORDER	seel	belon
Legacy Hill #5		12.28.6	1/2:00) · was in the second contract of the second		G	0W		0.1	5 s	+ 1	1,5	elt		Comming	Sample		
	4	/		J										004	24	9-0	A	
Analysis Requested & Comments:	, ,										$ \top $	***************************************						
10000 HILLS #5		2+38-201	12:4	Company of the Compan	egyvezádníků	G	PW	- del China	2	F)	i i	clt	**********	ANA	Sample		
Analysis Analysis	.a. C	LI. CON	d, F,	Fe, NO	2/3,	Mn, p	H,							D04	125	0-00	IA	
Analysis Requested & See AMOCHED Comments:	5 S	01, con a	vdn	els, TD	5		•				\exists	······································						
LEGACY HILBACK	1	12.28.201	1213	Charles and the Control of the Contr	name with the second	LG	DW	Daylor	0 - 1	5 5	TP	1,5	elt	*************		Sample		
Analysis		/	***************************************											000	-12	51-0	1A	
Requested & BOLT MID																	***************************************	ALL STREET, ST
Leschy Hills HEX Analysis Requested & Comments: 500 ATTACHE		12.28.30.	/12 i3	J	emperocod	(C)	PW	l	2		ρ	(cet	SCORMACOM Turning	ANA	Sample		
Analysis	6	c1, wind	1, F, F	e, NOz	-13,1	MnipH	1							004	12	52-0	1A	
Requested & SCC ATTACHEL	70	504, ha	v din	ers, TD	S	•												
	economicó (de														m	Sample		
										I	- 1					MIT	7 ~ +	-
Analysis Requested a														***************************************		NFE	20	17

. Well numbers correspond to Attachment L

y Aquifer to provide adequate drinking water. Upon cor The water quaity from each well will need to be assessed sample wil need to be collected and analyzed for the follo

- 2550

- Consoli Consoli Consoli Consoli Consoli
- Nitrate (as nitrogen)
- Zangalese

- Ota Dissoved Solids (DS)
- Presence/absence of total coliform bacteria

have any questions please feet free to call me at 512-773-.

Email information for report date: 1/19/21 17:17

D041250

Apex Drilling

Attn: Michael Becker apexdrilling.becker@yahoo.com

PO Box 867 Marble Falls, TX 78654

****Attention Austin Laboratory Clients****
Aqua-Tech is excited to announce that our
Austin Laboratory is expanding and moving to a
new location!

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Page 1 of 14 D041250_1 ATL 110720 FIN_Is 01 19 21 1717

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AUSTIN OFFICE

3512 Montopolis Dr. Suite A Austin, TX 78744

Phone: (512) 301-9559 Fax: (512) 301-9552 **Analytical Report**

Apex Drilling

Report Printed: 1/19/21

9/21 17:17

D041250

Legacy Hills #5			12/28/20 12:00 by CLIE 12/28/20 14:00 by Chris			<i>Type</i> Grab		<i>Matrix</i> Drinki	C-O-C ng Water 41249		
Lab ID# D041250-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
Total Dissolved Solids	2670	mg/L		25.0	100	100	Bryan	12/29/20 19:35 MRH	SM2540 C 2011	M123012	NEL
Nitrate as N (NO3N)	<0.0200	mg/L			0.0200	0.0200	Calc	01/01/21 12:24 KT	SM4500-NO3-F 2011	[CALC]	NEL
Nitrite as N	<0.01	mg/L	J (0.002)	0.002	0.002	0.01	Austin	12/29/20 13:50 KT	SM4500 NO2- B 2011	M123010	NEL
Nitrate/Nitrite as N	<0.02	mg/L		0.02	0.02	0.02	Bryan	01/01/21 12:24 PEC	SM4500-NO3-F 2011	M123154	ANR
Total Hardness (EDTA) as CaCO3	1870	mg/L		1.00	10.0	10.0	Bryan	01/04/21 18:30 MRH	SM2340 C 2011	M123189	NEL
Fluoride	2.15	mg/L		0.04	0.04	0.10	Bryan	01/19/21 08:08 MRH	SM4500-F C 2011	M123792	NEL
pH, Lab	7.5	S.U.	Hold-03		N/A	N/A	Austin	12/31/20 12:33 KT	SM4500-H+ B 2011	M123136	DWP
Temperature @ pH Analysis	19.6	Deg. C			N/A	N/A	Austin	12/31/20 12:33 KT	SM4500-H+ B 2011	M123136	DWP
Specific Conductance (adjusted to 25.0°C)	3600	uS/cm		2.00	6.67	6.67	Bryan	01/05/21 14:30 CJO	SM2510 B 2011	M123226	DWP,NEL
Metals (Total)											
Iron	0.340	mg/L		0.002	0.002	0.010	Bryan	01/07/21 17:20 PNS	EPA 200.7 R4.4	M123187	NEL
Manganese	0.005	mg/L		0.002	0.002	0.005	Bryan	01/07/21 17:20 PNS	EPA 200.7 R4.4	M123187	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 MDI

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

Report Printed: 1/19/21 17:17

D041250

					eneral (Chemistry - Quality Co								
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Fluoride - SM4500	-F C 2011													Bryar
Initial Cal Check	0.42	mg/L				01/19/21 08:08 MRH	0.428		97.4	90 - 110			2101170	
Low Cal Check	0.10	mg/L				01/19/21 08:08 MRH	0.0999		98.9	70 - 130			2101170	
Blank	<0.10	mg/L		0.04	0.10	01/19/21 08:08 MRH							M123792	
LCS	0.79	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799		98.6	90 - 110			M123792	
LCS Dup	0.77	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799		96.6	90 - 110	2.05	6.23	M123792	
Matrix Spike	3.05	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799	2.15	113	78.1 - 125			M123792	
Matrix Spike Dup	3.06	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799	2.15	114	78.1 - 125	1.10	5.72	M123792	
Nitrate/Nitrite as N	N - SM4500-N	IO3-F 2011												Brya
Initial Cal Check	1.40	mg/L				01/01/21 12:24 PEC	1.40		99.9	90 - 110			2101003	
Blank	<0.02	mg/L		0.02	0.02	01/01/21 12:24 PEC							M123154	
LCS	0.49	mg/L		0.02	0.02	01/01/21 12:24 PEC	0.500		97.2	91.3 - 109			M123154	
LCS Dup	0.49	mg/L		0.02	0.02	01/01/21 12:24 PEC	0.500		97.8	91.3 - 109	0.615	6.8	M123154	
Matrix Spike	0.55	mg/L		0.02	0.02	01/01/21 12:24 PEC	0.500	0.06	98.4	94.7 - 117			M123154	
Matrix Spike Dup	0.55	mg/L		0.02	0.02	01/01/21 12:24 PEC	0.500	0.06	98.8	94.7 - 117	0.406	8.65	M123154	
MRL Check	0.02	mg/L		0.00	0.02	01/01/21 12:24 PEC	0.0200		75.0	70 - 130			M123154	
Nitrite as N - SM45	500 NO2- B	2011												Aust
Blank	<0.01	mg/L		0.002	0.01	12/29/20 13:50 KT							M123010	
LCS	0.08	mg/L		0.002	0.01	12/29/20 13:50 KT	0.0800		103	90 - 110			M123010	
LCS Dup	0.08	mg/L		0.002	0.01	12/29/20 13:50 KT	0.0800		103	90 - 110	0.00	8.12	M123010	
Matrix Spike	0.08	mg/L		0.002	0.01	12/29/20 13:50 KT	0.0800	<0.01	97.1	70.6 - 117			M123010	
Matrix Spike Dup	0.08	mg/L		0.002	0.01	12/29/20 13:50 KT	0.0800	<0.01	102	70.6 - 117	4.86	8.18	M123010	
MRL Check	0.01	mg/L		0.002	0.01	12/29/20 13:50 KT	0.0100		101	70 - 130			M123010	
pH, Lab - SM4500-	-H+ B 2011													Austi
Duplicate	7.6	Std Units				12/31/20 12:33 KT		7.5			0.398	1.18	M123136	
Reference	6.9	Std Units				12/31/20 12:33 KT	6.86		100	95 - 105			M123136	
Reference	9.2	Std Units				12/31/20 12:33 KT	9.18		99.9	95 - 105			M123136	
Reference	6.9	Std Units				12/31/20 12:33 KT	6.86		101	95 - 105			M123136	
Reference	9.2	Std Units				12/31/20 12:33 KT	9.18		99.9	95 - 105			M123136	
Specific Conducta	ance (adjust	ed to 25.0°C) - S	SM2510 B 2011											Brya
Initial Cal Check	513	uS/cm				01/05/21 14:30 CJO	484		106	90 - 110			2101024	
Blank	<2.00	uS/cm		2.00	2.00	01/05/21 14:30 CJO							M123226	
Duplicate	3950	uS/cm		6.67	6.67	01/05/21 14:30 CJO		3990			0.924	2	M123226	
LCS	1460	uS/cm		2.00	2.00	01/05/21 14:30 CJO	1410		104	90 - 110			M123226	

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Apex Drilling

Report Printed:

1/19/21 17:17

D041250

					Jeneral C	Chemistry - Quality Co								
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
otal Dissolved S	olids - SM25	40 C 2011												Bryan
Blank	<25.0	mg/L		25.0	25.0	12/29/20 19:35 MRH							M123012	
Duplicate	312	mg/L		100	100	12/29/20 19:35 MRH		308			1.29	9.13	M123012	
Reference	440	mg/L		100	100	12/29/20 19:35 MRH	500		88.0	81 - 121			M123012	
Total Hardness (E	DTA) as CaC	O3 - SM2340	C 2011											Bryan
nitial Cal Check	53.5	mg/L				01/04/21 18:30 MRH	54.4		98.4	85 - 115			2101013	
Blank	<1.00	mg/L		1.00	1.00	01/04/21 18:30 MRH							M123189	
Duplicate	11.1	mg/L		1.00	1.00	01/04/21 18:30 MRH		11.1			0.00	9.52	M123189	
LCS	102	mg/L		1.00	1.00	01/04/21 18:30 MRH	100		102	90 - 110			M123189	
LCS Dup	100	mg/L		1.00	1.00	01/04/21 18:30 MRH	100		100	90 - 110	2.00	6.47	M123189	
Matrix Spike	110	mg/L		1.00	1.00	01/04/21 18:30 MRH	100	11.1	99.0	87.6 - 111			M123189	
MRL Check	4.04	mg/L		1.00	1.00	01/04/21 18:30 MRH	4.00		101	70 - 130			M123189	
					Metals	(Total) - Quality Cont	rol							
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
						· · · · · · · · · · · · · · · · · · ·	Amount	Nesuit				LIIIII		
Iron - EPA 200.7 R	4.4													Bryan
Blank	<0.010	mg/L		0.002	0.010	01/07/21 16:36 PNS							M123187	
LCS	0.946	mg/L		0.002	0.010	01/07/21 16:39 PNS	1.00		94.6	84.5 - 115.4			M123187	
LCS Dup	0.955	mg/L		0.002	0.010	01/07/21 16:42 PNS	1.00		95.5	84.5 - 115.4	1.04	20	M123187	
Duplicate	<0.010	mg/L	J (0.008)	0.002	0.010	01/07/21 16:46 PNS		<0.010			2.56	20	M123187	
Matrix Spike	0.968	mg/L		0.002	0.010	01/07/21 16:49 PNS	1.00	0.008	96.0	69.5 - 130.4			M123187	
Manganese - EPA	200.7 R4.4													Bryan
Blank	<0.005	mg/L		0.002	0.005	01/07/21 16:36 PNS							M123187	
LCS	1.01	mg/L		0.002	0.005	01/07/21 16:39 PNS	1.00		101	84.5 - 115.4			M123187	
LCS Dup	1.02	mg/L		0.002	0.005	01/07/21 16:42 PNS	1.00		102	84.5 - 115.4	1.20	20	M123187	
Duplicate	0.016	mg/L		0.002	0.005	01/07/21 16:46 PNS		0.015			5.70	20	M123187	
Matrix Spike	1.04	mg/L		0.002	0.005	01/07/21 16:49 PNS	1.00	0.015	102	69.5 - 130.4			M123187	
				Pre	paration	Procedures - Quality	Control							
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Turbidity - SM213	D B 2011													Bryan

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



AUSTIN OFFICE

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

Analytical Report

Apex Drilling

Report Printed:

1/19/21 17:17

D041250

		Sample Prep	aration Sum	mary					External Dilution	
Sample	Method	Prepared	Lab	Bottle	e Initial	Units	Final	Units	Factor	Batch
D041250-01										
Fluoride	SM4500-F C 2011	1/19/21 8:08 MRH	Bryan	С	25.0	mL	25.0	mL	1	M123792
Iron	EPA 200.7 R4.4	1/7/21 12:30 BLC	Bryan	В	10.0	mL	10.2	mL	1	M123187
Manganese	EPA 200.7 R4.4	1/7/21 12:30 BLC	Bryan	В	10.0	mL	10.2	mL	1	M123187
Nitrate/Nitrite as N	SM4500-NO3-F 2011	1/1/21 11:12 PEC	Bryan	D	10.0	mL	10.0	mL	1	M123154
Nitrite as N	SM4500 NO2- B 2011	12/29/20 13:50 KT	Austin	Α	25.0	mL	25.0	mL	1	M123010
pH, Lab	SM4500-H+ B 2011	12/31/20 12:33 KT	Austin	Α	50.0	mL	50.0	mL	1	M123136
Sample Acidified to pH<2 in Lab	N/A	12/28/20 15:00 CTT	Bryan	D	1.00	mL	1.00	mL	1	M122954
Specific Conductance (adjusted to 25.0	0°C) SM2510 B 2011	1/5/21 14:30 CJO	Bryan	С	15.0	mL	50.0	mL	1	M123226
Temperature @ pH Analysis	SM4500-H+ B 2011	12/31/20 12:33 KT	Austin	Α	50.0	mL	50.0	mL	1	M123136
Total Dissolved Solids	SM2540 C 2011	12/29/20 19:35 MRH	Bryan	С	25.0	mL	100	mL	1	M123012
Total Hardness (EDTA) as CaCO3	SM2340 C 2011	1/4/21 18:30 MRH	Bryan	В	5.00	mL	50.0	mL	1	M123189
Turbidity	SM2130 B 2011	1/4/21 13:30 BLC	Bryan	В	10.0	mL	10.0	mL	1	M123183
D041250-01RE1										
Sample Acidified to pH<2 in Lab	N/A	12/28/20 15:00 CTT	Bryan	В	100	mL	100	mL	1	M122936

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AQUA-TECH LABORATORIES INC.	hain-of-Custody	and Analysis	Request		\$5.35 8.00	****	-		Labora	tories, Ir	c.		ork Order / C-O-C	30000
Client (Declerate								ıstin		Bryan	DIJ	141	249-	54
Client /Project:	* / /	DW - Drinking Water	(.)	O. daile a T	**************************************	TOR	Austin,	ntopolis Dr. TX 78744	ь	35 Phil Gramm Bryan, TX 778	07		e of	2
	1/16	NID New Details Mr.	ater P-	Container Type Plastic	T1047	1		01.9559	in in and	979.778.370		Pag	e l of	
Address		S - Solid	T - 1	Glass Teflon©	TX2	:39	st results me		ated otherwise	ation requireme	nts unies	S	V-0023 R03	
Address City State	ZIP	S - Solid CM - Custody Maintai CTU - Custody Transfe	er Unbroken					Sa	ample Cu	stody				
O Phone / Email		CT - Corrected Temp SUB - Subcontracted			Relinquished	11/11/11	- 1	7		Sampl	er Date	12.28	-20 🔲 lced	/ Refrig
By relinquishing the san	mples listed below to Aqua-Tech, the				by (print & sign)	100	Ech	16/1		Client	Time	14.	ンン □ Custod Sealed	iy 🌡
Samples will be analyzed by a method that is within Aqua-Te Tech's fields of accreditation will be subcontracted to a NEL	AC certified lab that is certified for the	at method. Clients will be no	otified of the subcontra-	ct lab's details. Other		***************************************				Client	Date	2 () 6		
analytes not requiring accreditation will be analyzed by a co- column. The client approves all method modifications docur		ract lab. A current list of Aqu			Received by (print & sign)					ATL F	ield Time	•		
Client Comments:	* Preservatives		Receipt in Lab	1 1	Relinquished					Client	Date		lced / I	Refrig
	1 < 6 °C (unfrozen)	Cooler I			by (print & sign)				- 57	LOTAT F	ield Time		см/с)TU
	2 H2SO4 (764381	Temperature (°	c): 9.3/	4	Received by				10,	Client	Date	3	lced /	Refrig
	3 HCI	read /	CT 9.3	2/	(print & sign)					ATL F	ield Time	9	CM/C	טדט
	4 HN03 0753 27	Preservation Corre	ect? YES NO	YES NO	Relinquished by					Client			lced /	- 1
	5 Na2S2O3 1765	0 Post Preservative	es? (YES) NO	YES NO	(print_&eign)	Λ				ATL	ield Time	Ð	CM / C	TU/
	6 NaOH	Thermometer	ID: 07644	480	Received by	afor	m)				Date	2129	120 Cond	Good
	7	pH Paper			(print & sign)	chn.	sti	e Toi	NNU	Lab		400		Refing
	Lab Comments													
	Start	End				Contain	er(s)		LAB	USE ONL'	/ BEL	OW (initi	als CTT)
Field Sample ID (record field data for each sample in space below		e Date	Time Comp	1 .	Bottle Count	Volume (Size in L)	Type (+)	Preserv- ative(s) *	Cooler ID	pH Check		WORK ORDER	eebe	DΝ
Legney 11/1/45	12-28-40/12) OW		0.15	STP	1,5	clt		onnocennic com	Sample		
Analysis 2 1 P/	9 /									004	240	7-0	A	************
Requested & Comments:														
10000 H1/1545	12+38-20/12	i L		3 PW	Ì	2	P	al de la constant de	Ut	Transcommen	+NA	Sample		
Analysis Requested 8 Sec ATTOCHED	· CI, cond, soyd	F, Fe, NO2	13, MN	, pH,						D04	25	0-0	Α	
Comments:	° so4, noural	new, TDS												es managa basan kerejanga sa
LEGACY Hills + CX	1 12.28.20/12	2.30	and () DN	- Constitution of the Cons	0.15	stp	1,5	elt	Pagosphophus,	ALCOHOLD IN	Sample		8.8
Analysis Requested & Comments: Analysis Requested & Comments:										004	14	51-0	1A	***************************************
	1 17.25.70/12		/	a DW	i	2	P	(cet	SECURIOR CONTRACTOR CO	NA	Sample		MONTHUMANIA
Analysis	cl. cond. F	Fe, ND2	13, Mn.	DH,				· · · · · · · · · · · · · · · · · · ·		1 1		2-0	I A	ssicont linearinment
Analysis Requested & Comments: 500 AT4 (HC)	0 . s04, hard	ners, TDS	>									Ĭ		
												Sample	2011-	
Analysis Requested &												MO I G	-011/	Felheniuso

The water quality from each well will need to be assessed y Aquifer to provide adequate drinking water. Upon cor sample wil need to be collected and analyzed for the follo

- 2550

- Consoli Carlo Second Second
- Nitrate (as nitrogen)
- Zangalese

- Ota Dissoved Solids (DS)
- Presence/absence of total coliform bacteria

have any questions please feet free to call me at 512-773-.

Page 1 of 1

3



AQU1-G

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

TABLE OF CONTENTS

This report consists of this Table of Contents and the following pages:

Report Name	<u>Description</u>	<u>Pages</u>
948694_r03_03_ProjectResults	Ana-Lab Project P:948694 C:AQU1 Project Results t:304	1
948694_r03_06_I_ProjectTRRP	Ana-Lab Project P:948694 C:AQU1 Project TRRP Results Report for Class I	2
948694_r10_05_ProjectQC	Ana-Lab Project P:948694 C:AQU1 Project Quality Control Groups	1
948694_r99_09_CoC1_of_1	Ana-Lab CoC AQU1 948694_1_of_1	2
	Total Pages:	6



Report Page 1 of 7

JAG Testing the Limits of Science and Service

Page 1 of 1

Project

Printed: 12/31/2020

AQU1-G

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

Results

				Sample	Results					
	1950355	D041250-01						Received:	12/29	9/2020
Di	rinking Water		Collected by: Client Taken: 12/28/2020	•	ch Laboratori 2:00:00		PO:			
E	PA 300.0 2.1		Prepared	931895	12/29/2020	16:23:00	Analyzed 931895	12/29/2020	16:23:00	ATN
	Parameter		Results	Un	its RL		Flags	CAS		Bottle
NELAC	Chloride		44.0	mg	/L 3.00					01
E	PA 300.0 2.1		Prepared	932053	12/30/2020	19:53:00	Analyzed 932053	12/30/2020	19:53:00	ATN
,	Parameter		Results	Un	its RL		Flags	CAS		Bottle
NELAC	Sulfate		1830	mg	/L 10.0					01

Qualifiers

We report results on an As Received or wet basis unless marked Dry Weight. Unless otherwise noted, testing was performed at Ana-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No LAo26, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-068-0. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation.

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.

Trey Peery, MA, Project Manager

U



Report Page 2 of 7

RESULTS



Page 1 of 2

948694

12/31/2020 Printed

DW

John Brien 635 Phil Gramm Blvd. Bryan, TX 77807-9104 Parameter Results MDL SDL MQL MQLAdj Units Flaa

<u>CAS</u> Param	eter	Results	MDL	SDL	MQL	MQLAdj	Flag	Units	Target	Bottle	Dilute
Drinking Water]	Ion Chromatography							EPA:	300.0 2.1	
1950355 D04125	0-01										
		Collection:	12/28/20	020	12:00:00	Client			Received:	12/29/202	0
Prepared:	931895										
				Analyzed:		931895	12	2/29/20	16:23:00		
Chlori	ide	44.0	0.0211	0.211	0.300	3.00		mg/L	250 Secondary Standard	01	10.00
Prepared:	932053										
				Analyzed:		932053	12	2/30/20	19:53:00		
Sulfat	e	1830	0.0871	8.71	0.100	10.0		mg/L	250 Secondary Standard	01	100.00

MDL is Method Detection Limit (40 CFR 136 Appendix B) MQL is the Method Quantitation Limit and corresponds to a low standard

AQU1

Aqua-Tech Laboratories

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)



RESULTS

Page 2 of 2



Printed 12/31/2020

DW

AQU1

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

Qualifiers:

We report results on an As Received or wet basis unless marked Dry Weight. Unless otherwise noted, testing was performed at Ana-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No LA026, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-068-0. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation.

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.

Trey Peery, MA, Project Manager



Quality Control



Page 1 of 1

Project

Printed 12/31/2020

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

AQU1-G

Analytical	Set 931895									EPA 3	300.0 2.1
				В	Blank						
<u>Parameter</u>	PrepSet	Reading	MDL	MQL	Units			File			
Chloride	931895	0.0316	0.0211	0.100	mg/L			121905530			
					ccv						
<u>Parameter</u>		Reading	Known	Units	Recover%	Limits%		File			
Chloride		9.64	10.0	mg/L	96.4	90.0 - 110		121905526			
Chloride		10.7	10.0	mg/L	107	90.0 - 110		121905542			
				LC	S Dup						
<u>Parameter</u>	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	931895	5.18	5.16		5.00	85.0 - 110	104	103	mg/L	0.387	20.0
				ı	MSD						
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	1950206	298	298	186	100	80.0 - 120	112	112	mg/L	0	20.0
Analytical	Set 932053									EPA 3	300.0 2.1
7				Е	Blank						
Parameter	PrepSet	Reading	MDL	MQL	Units			File			
Sulfate	932053	ND	0.0871	0.100	mg/L			121908878			
					ccv						
Parameter		Reading	Known	Units	Recover%	Limits%		File			
Sulfate		10.1	10.0	mg/L	101	90.0 - 110		121908874			
Sulfate		10.1	10.0	mg/L	101	90.0 - 110		121908890			
Sulfate		10.0	10.0	mg/L	100	90.0 - 110		121908902			
				LC	S Dup						
Parameter	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Sulfate	932053	5.08	5.12		5.00	88.0 - 110	102	102	mg/L	0.784	20.0
				ı	MSD						
<u>Parameter</u>	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Sulfate	1950523	141	139	92.0	50.0	80.0 - 120	98.0	94.0	mg/L	4.17	20.0

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

Blank - Method Blank; CCV - Continuing Calibration Verification



Report Page 5 of 7

CONTAINERS SUPPLIED:

) D041250-01 [E] - [SUB] ANA CI SO4 0.25LP [Split from -01 A]

Chloride - EPA 300.0 Analysis Request for:



Chain-of-Custody & Analysis Request

SHIPPED TO:

Ana-Lab Corp. (NELAP Cert. T104704201) 2600 Dudley Road Kilgore, TX 75662 Phone: (903) 984-0551

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.

Matrix: Drinking Water

Laboratory DS 1 45035V

Fax: (903) 984-5914

Sample ID: D041250-01 Sampled 12/28/20 12:00

SO4 DW - EPA 300.0

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

C-O-C#

708 - D041250

T104704371

eport Page 6 of 7

Relinquished by: (print & sign) Christie Tonnu arrier & Tracking Number: eceived by: (print & sign) Lone Star Cooler Temperature (°C) Kathy Tarver Ana-Lab Line below documents condition at receipt in lab (shipped to) listed above older Temperature (°C) Temp. Read (TR) Corrected Temp. (CT) Themometer D Cooler 1 ¥. Received in Lab X ATL-Austin K __ATL-Bryan Cooler 1: N Sampler AQU1 - Z1000QA3 12/29/20 0900 12/28/20 Date Please email reports to: reporting@aqua-techlabs.com Please return cooler(s) to: Austin Facility Time V Ced Abbreviations

Time V Ced Abbreviations

AASA Not Chiled Condition Good

Not Rec'd loed Received load Sample Info
"X" all that apply 5 DAY TAT Abbreviations: DW - Drinking Water

NP - Non-Potable Water Aqua-Tech Comments and Special Instructions CTU - Custody Transfer Unbroken Tracking # and Terms See Attached for LP - Liter Plastic LG - Liter Glass StP - Sterile Plastic BRET

Page 1 of 1

948694 CoC Print Group 001 of 001

12/28/2020

https://www2.lso.com/weblabels/?labelsize=0&combinedlabel=1&sessionkey=%7B8FCC6A01-F16A-4FDE-9B12-752E81478E99%7D





LSO 1-800-800-8984 www.lso.com

SHIP TO: RECEIVING ANA LAB CORP 2600 DUDLEY ROAD RD KILGORE, TX 75662 9039840551 From: CHRISTIE TONNU AQUA TECH LABS 3512 MONTOPOLIS DR AUSTIN, TX 78744 5123019559



LSO ECONOMY NEXT DAY

3:00 IN MOST AREAS LATER IN REMOTE AREAS

PRINT DATE: 12/28/2020 REF 3: QUICKCODE: WEIGHT: 15.00LBS REF 1: 1D00V.0000 REF 2:

Date Time Tech

Therm#: 6443 Corr Fact: 0.0 C

Fold on above line and place shipping label in pouch on package. Please be sure the barcodes and addresses can be read and scanned. Shipping Instructions

- 1. Fold this page along the horizontal line above.
- 2. Place this Airbill in the shipping label pouch on the package you are shipping. Please be sure the barcodes and addresses can be read and scanned.
- 3. To locate a drop box near you, click on Find A Drop Box from the home page main menu.
- 4. To schedule a pickup, click on Request Pickup.

WARNING: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your Lone Star Overnight account number.

This label is valid for use for 3 months from the date printed. Use of expired labels may result in delayed billing and / or additional research charges. LIMIT

OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES OR RESIDENTIAL DELIVERIES.

Report Page 7 of 7

Water Quality

Well No. 7



Email information for report date: 1/8/21 17:08

E001054

Apex Drilling

Attn: Michael Becker apexdrilling.becker@yahoo.com

PO Box 867 Marble Falls, TX 78654

****Attention Austin Laboratory Clients****
Aqua-Tech is excited to announce that our
Austin Laboratory is expanding and moving to a
new location!

We will close our current Austin Laboratory location on Friday, October 23, 2020 at 12:00 p.m. to begin the moving process and will re-open at our new location on Monday, October 26 at 8:00 a.m.

Austin Laboratory address as of October 26, 2020: 3512 Montopolis Drive Austin, TX 78744

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

CORPORATE OFFICE

635 Phil Gramm Boulevard Bryan, TX 77807

Phone: (979) 778-3707 Fax: (979) 778-3193



AUSTIN OFFICE

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

TCEQ DW Lab ID TX 239

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 required by the State of Texas.

DWP Accreditation 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.

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

June M. Brien

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@aqua-techlabs.com

www.agua-techlabs.com

Page 1 of 4 E001054_1 ATL 110720 FIN_Is 01 08 21 1708

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

Dripping Springs TX 78620



AUSTIN OFFICE

Fax: (512) 301-9552

3512 Montopolis Dr. Suite A Austin, TX 78744 Phone: (512) 301-9559 **Analytical Report**

Apex Drilling

Report Printed:

1/8/21 17:08

E001054

LEGACY HILLS NO7			Collected: 01/05/21 11:00 by CLIENT Received: 01/05/21 12:41 by Christie Tonnu			<i>Type</i> Grab		<i>Matri:</i> Drink	C-O-C # 1054-7			
Lab ID# E001054-01	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	01/05/21 15:21 KT	SM9223 B 2004		M123260	NEL
Escherichia coli (E.coli)	Absent	N/A		N/A	N/A	N/A	Austin	01/05/21 15:21 KT	SM9223 B 2004		M123260	NEL
Jon and Tami Shake W 411 Old Red Ranch Rd												

				Microbiological Analyses - Quality Control											
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Range	Control Limit	Batch		
Escherichia co	oli (E.coli) - SM9	223 B 2004												Austin	
Duplicate	Absent	N/A		N/A	N/A	01/05/21 15:11 KT		Absent				200	M123260		
Blank	Absent	N/A		N/A	N/A	01/05/21 15:21 KT							M123260		
Total Coliforms	s - SM9223 B 20	04												Austin	
Duplicate	Absent	N/A		N/A	N/A	01/05/21 15:11 KT		Absent				200	M123260		
Blank	Absent	N/A		N/A	N/A	01/05/21 15:21 KT							M123260		

		Sample Prep	aration Sumi	mary				External Dilution	
Sample	Method	Prepared	Lab	Bottle Initial	Units	Final	Units	Factor	Batch
E001054-01									
Escherichia coli (E.coli)	SM9223 B 2004	1/5/21 15:05 KT	Austin	A 100	mL	100	mL	1	M123260
Total Coliforms	SM9223 B 2004	1/5/21 15:05 KT	Austin	A 100	mL	100	mL	1	M123260

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AQUA-TECH	Chain-of-Custody and Analysis Request									a-lech	Labora	tories, i	nc.	a.	Work Order / C-O-C
A LABORATORIES INC.									A	ustin		Bryar	ŧ	4.7:	054-7
Client /Project:		manifestation of the second					Garage Const	tok,		ntopolis Drive	e 6	35 Phil Gram Bryan, TX 7		Landanese	
o Name APEX DRILLING	<i>!</i>	6	DW - Drinking Water NP - Non-Potable W	ater	(+) Containe P - Plastic	er Type	T10470	04371		301.9559		979.778.3		Pa	age \setminus of \wedge
Address City State		Definitions	S - Solid		G - Glass T - Teflon©		TX2	39 Test r	esults m		ditation/certific ated otherwise		nents unl	less	V-0023 R03
City State	ZIP	efini	CM - Custody Mainta CTU - Custody Transf	fer Unbroken						S	ample Cu	stody		***************************************	
Ö Phone / Email		Ω	CT - Corrected Tem SUB - Subcontracted				Relinquished	and the second		>		Sam		ate /- 5	- Z / 🔲 loed / Refrig
	imples listed below to Aq				mothed that is not	uithin Agus	by (print & sign)			ment E.	ministration State Sections to company	Clies ATL	nt Ti	me / 7	Custody Sealed
Tech's fields of accreditation will be subcontracted to a NE analytes not requiring accreditation will be analyzed by a c	LAC certified lab that is o	ertified for that m	ethod. Clients will be n	otified of the	subcontract lab's d	letails. Other						Clie	16	ate	dted / Refrig
column. The client approves all method modifications docu		the subcontract	lab. A current list of Ac				Received by (print & sign)					ATL	. Field Ti	ime	CM/CTU
Client Comments:	* Preserv			Receipt	in Lab		Relinquished	***************************************		ericitest and high even firmed account of the	*******************************	Clie	nt D	ate	Iced / Refrig
		unfrozen)	Cooler		UF T	- XV	by (print & sign)			s' i	007		. Field	îme	CM/CTU
neggistalistis.	2 H2SO4			11.	.41	<u>,Ď/</u>			***************************************	4		Clie	nt D	Oate	lced / Refrig
	3 HCI		Temperature (0).	2	2,	Received by (print & sign)		and the second			ATL	_ Field Ti	ime	Псм/сти
	4 HNO3		Preservation Com			ÉS NO	Relinquished			ironenau nerstaan avoorbinst		Clie		Date	Iced / Refrig
	5 Na2S2O3 ()**	165KUX	Post Preservative			ÆS NO	by (print & sign)	on when the				ATI		ime	CM / CTU /
	6 NaOH	142000	Thermometer		24480				7					Date	[72 in i
	7		pH Paper				Received by (print & sign)					☑ Lab	1_	1/5/	Iced / Refrig
	/	***************************************	pn rapei	ID-10 12	55987	······································	<u> </u>	CANVIST	76	<u> Tom</u>	<u>ии</u>	[w] Lau		1441	Р см/сти
AND CONTRACTOR OF THE CONTRACT	Lab Comments														
		art	l End			T		Container	/e\	energi essendone es el construir	LAR	USE ONL	VRE	I OW /in	sitiols ATT \
Field Sample ID (record field data for each sample in space below)		Time	Date	Time	Composite Type	Sample Matrix	Bottle	Volume	Type	Preserv-		pH Check	7	WORK	
(record field data for each sample in space belo	w) Date	Time	Date	Time		ка семенического меняниче	Count	(Size in L)	(+)	ative(s) *		bu clieck	SuB	ORDER Sample	see below
Legacy Hills # 7	15-21	111:00	AND DESCRIPTION OF THE PARTY OF		Grab				1 CID I	1, 5	elt	· State Stat		oumpio	12-01
Analysis Requested & BACT - DA	Tota	·				DW	1	-0.12 -0.15	StP	1, 0			-		
Comments:		ıl Coliform	P/A			DW	1	0.15	SIP	1, 0				C00)	
Lesney Hills #7		l Coliform	P/A			DW		475 1 2 200	\$ \(\tau_{\text{\ti}\}\eta}\text{\te}\tint{\text{\ti}\text{\text{\text{\text{\text{\text{\text{\texi}\text{\text{\text{\texi}\text{\text{\text{\texi}\text{\text{\texi}\text{\text{\texi}\text{\texi}\text{\texi}\text{\texi}\texit{\texitt{\texit{\text{\t	me z	CT?			<u> 290°</u>	
	1-5-21	1/11:00		Martin and Application of Control and Applicatio	6	DW		V.15	151P			, positions	ANA	E00) Sample	2.0LB
Analysis Requested &		1/11:00 Sudi F	Te, NO	- I	6	DW		0.15 VWNg V	15(P)		CT?	According to the second	ANA	Sample	019
Analysis Requested & SCC ATTACHE	1-5-2, 0 ° 504, V	1/11:00 Sudi F		- I	6	DW		0.15 VWNg V	9 C		CT?	and the second s	ANA	Sample	019
		1/11:00 Sudi F	, Fe, NO H, TOS	12, NI	6	DW		0.15 VWNg V	Str		CT?	James and the second se	ANA	Sample	019
Requested & Comments: 5CC ATTACHE. Legacy Hills #9 Analysis		/11:00 Snot. Fraydra	, Fe, NO H, TOS	12, NI	G 03, MN	DW		0.15 v rong v 2	Str	mez	CIT?		ANA	Sample Sample	019
Requested & SCC ATTACHE. Legacy Hills #9		/11:00 Snot. Fraydra	, Fe, NO H, TOS	12, NI	G 03, MN	DW		0.15 v rong v 2	Str.	mez	CIT?		ANA	Sample	019
Requested & Comments: 5CC ATTACHE. Legacy Hills # 9 Analysis Requested & Comments: BACT-AA	6 ° 804, V	///:00 Snd, F auxdne //10.00	, Fe, NO H, TOS	12, 01	G 03, MN	DW 1 PH		0.15 v rong v 2	Str	mez	CIT?		ANA	Sample Sample	019
Requested & Comments: 5(C ATTACHE. Legacy Hills # 9 Analysis Requested & Comments: 5A C - AA Legacy Hills # 9 Analysis	0 ° 504, V	///:00 briol, Francisco	Fe, NC H, TOS) Z 8 N3	G 03, MN	DW		0.15 Nong v 2 0.15	Str	mez	cet cet		ANA	Sample Sample	01056-0V
Requested & Comments: 5 (CATTACHE) Legacy Hills # 9 Analysis Requested & Comments: BACT-BA Legacy Hills # 9 Analysis Requested & Reque	0 ° 504, V 1-5-21	///:00 Snd, F auxdne //10.00	Fe, NC H, TOS) Z , N'	G 03, MN	DW 1 PH		0.15 Nong v 2 0.15	Str Str	mez	cet cet		ANA	Sample Sample	01056-0V
Requested & Comments: 5 CC ATTACHE. Analysis Requested & CACY HILLS & GACY HILLS &	0 ° 504, V 1-5-21	///:00 briol, Francisco	Fe, NC H, TOS) Z 1 N 1	G 03, MN	DW 1 PH		0.15 Nong v 2 0.15	str F	mez	cet cet		ANA	Sample Sample	0.05 - 01 A
Requested & Comments: 5 (CATTACHE) Legacy Hills # 9 Analysis Requested & Comments: BACT-BA Legacy Hills # 9 Analysis Requested & Reque	0 ° 504, V 1-5-21	///:00 briol, Francisco	Fe, NC H, TOS) Z , N'	G 03, MN	DW 1 PH		0.15 Nong v 2 0.15	STE	mez	cet cet		ANA	Sample Sample Sample	01056-0V

Well numbers correspond to Attachment I

sample wil need to be collected and analyzed for the follo The water quality from each well will need to be assessed y Aquifer to provide adequate drinking water. Upon cor

- heraneseq
- Nitrate (as nitrogen)
- Zanganese

- Presence/absence of total coliform bacteria

have any questions please feet free to call me at 512-773-.

Email information for report date: 1/25/21 09:53

E001055

Apex Drilling

Attn: Michael Becker apexdrilling.becker@yahoo.com

PO Box 867 Marble Falls, TX 78654

****Attention Austin Laboratory Clients****
Aqua-Tech is excited to announce that our
Austin Laboratory is expanding and moving to a
new location!

We will close our current Austin Laboratory location on Friday, October 23, 2020 at 12:00 p.m. to begin the moving process and will re-open at our new location on Monday, October 26 at 8:00 a.m.

Austin Laboratory address as of October 26, 2020: 3512 Montopolis Drive Austin, TX 78744

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

CORPORATE OFFICE

635 Phil Gramm Boulevard Bryan, TX 77807

Phone: (979) 778-3707 Fax: (979) 778-3193



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

TCEQ DW Lab ID TX 239

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 required by the State of Texas.

DWP Accreditation 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.

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

June M. Brien

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@aqua-techlabs.com

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Page 1 of 15 E001055_1 ATL 110720 FIN_Is 01 25 21 0953

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hone: (512) 301-9559 **Report Printed:** Fax: (512) 301-9552

Analytical Report

Apex Drilling

Printed: 1/25/21

E001055

9:53

Legacy Hills #7			1/04/21 11:00 by CLIE 1/05/21 12:41 by Chris			<i>Type</i> Grab		<i>Matrix</i> Drinkir		C-O-C # 1054-7	
Lab ID# E001055-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
Total Dissolved Solids	2680	mg/L		25.0	100	100	Bryan	01/06/21 13:10 MRH	SM2540 C 2011	M123261	NEL
Nitrate as N (NO3N)	<0.0200	mg/L			0.0200	0.0200	Calc	01/07/21 13:06 KT	SM4500-NO3-F 2011	[CALC]	NEL
Nitrite as N	<0.01	mg/L		0.002	0.002	0.01	Austin	01/06/21 10:38 KT	SM4500 NO2- B 201	1 M123280	NEL
Nitrate/Nitrite as N	<0.02	mg/L		0.02	0.02	0.02	Bryan	01/07/21 13:06 EMT	SM4500-NO3-F 2011	M123327	ANR
Total Hardness (EDTA) as CaCO3	1360	mg/L		1.00	20.0	20.0	Bryan	01/21/21 13:30 MRH	SM2340 C 2011	M123427	NEL
Fluoride	2.13	mg/L		0.04	0.04	0.10	Bryan	01/19/21 08:08 MRH	SM4500-F C 2011	M123792	NEL
pH, Lab	7.7	S.U.	Hold-03		N/A	N/A	Austin	01/06/21 14:59 KT	SM4500-H+ B 2011	M123288	DWP
Temperature @ pH Analysis	23.8	Deg. C			N/A	N/A	Austin	01/06/21 14:59 KT	SM4500-H+ B 2011	M123288	DWP
Specific Conductance (adjusted to 25.0°C)	1830	uS/cm		2.00	4.00	4.00	Bryan	01/22/21 11:06 MRH	SM2510 B 2011	M123973	DWP,NEL
Metals (Total)											
Iron	0.393	mg/L		0.002	0.001	0.005	Bryan	01/12/21 12:11 PNS	EPA 200.7 R4.4	M123453	NEL
Manganese	0.008	mg/L		0.002	0.001	0.002	Bryan	01/12/21 12:11 PNS	EPA 200.7 R4.4	M123453	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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E001055

						Chemistry - Quality Co	Spike	Source				RPD		
	Result	Units	Notes	MDL	SQL	Analyzed	Amount	Result	%R	%R Limits	RPD	Limit	Batch	
Fluoride - SM4500	F C 2011													Bryan
Initial Cal Check	0.42	mg/L				01/19/21 08:08 MRH	0.428		97.4	90 - 110			2101170	
Low Cal Check	0.10	mg/L				01/19/21 08:08 MRH	0.0999		98.9	70 - 130			2101170	
Blank	<0.10	mg/L		0.04	0.10	01/19/21 08:08 MRH							M123792	
LCS	0.79	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799		98.6	90 - 110			M123792	
LCS Dup	0.77	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799		96.6	90 - 110	2.05	6.23	M123792	
Matrix Spike	3.05	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799	2.15	113	78.1 - 125			M123792	
Matrix Spike Dup	3.06	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799	2.15	114	78.1 - 125	1.10	5.72	M123792	
Nitrate/Nitrite as N	- SM4500-N	IO3-F 2011												Brya
Initial Cal Check	1.39	mg/L				01/07/21 13:06 EMT	1.40		99.4	90 - 110			2101055	
Blank	<0.02	mg/L		0.02	0.02	01/07/21 13:06 EMT							M123327	
LCS	0.46	mg/L		0.02	0.02	01/07/21 13:06 EMT	0.500		93.0	91.3 - 109			M123327	
LCS Dup	0.47	mg/L		0.02	0.02	01/07/21 13:06 EMT	0.500		94.2	91.3 - 109	1.28	6.8	M123327	
Matrix Spike	0.63	mg/L		0.02	0.02	01/07/21 13:06 EMT	0.500	0.13	99.8	94.7 - 117			M123327	
Matrix Spike Dup	0.62	mg/L		0.02	0.02	01/07/21 13:06 EMT	0.500	0.13	98.8	94.7 - 117	1.01	8.65	M123327	
MRL Check	0.02	mg/L		0.02	0.02	01/07/21 13:06 EMT	0.0200		110	70 - 130			M123327	
Nitrite as N - SM45	00 NO2- B	2011												Austi
Blank	<0.01	mg/L		0.002	0.01	01/06/21 10:38 KT							M123280	
LCS	0.08	mg/L		0.002	0.01	01/06/21 10:38 KT	0.0800		99.3	90 - 110			M123280	
LCS Dup	0.08	mg/L		0.002	0.01	01/06/21 10:38 KT	0.0800		103	90 - 110	3.91	8.12	M123280	
Matrix Spike	0.08	mg/L		0.002	0.01	01/06/21 10:38 KT	0.0800	<0.01	96.3	70.6 - 117			M123280	
Matrix Spike Dup	0.08	mg/L		0.002	0.01	01/06/21 10:38 KT	0.0800	<0.01	97.6	70.6 - 117	1.36	8.18	M123280	
MRL Check	<0.01	mg/L	J (0.009)	0.002	0.01	01/06/21 10:38 KT	0.0100		94.2	70 - 130			M123280	
pH, Lab - SM4500-	H+ B 2011													Aust
Duplicate	7.6	Std Units				01/06/21 14:59 KT		7.6			0.657	1.18	M123288	
Reference	6.8	Std Units				01/06/21 14:59 KT	6.86		99.7	95 - 105			M123288	
Reference	9.1	Std Units				01/06/21 14:59 KT	9.18		99.3	95 - 105			M123288	
Reference	6.9	Std Units				01/06/21 14:59 KT	6.86		100	95 - 105			M123288	
Reference	9.1	Std Units				01/06/21 14:59 KT	9.18		99.6	95 - 105			M123288	

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E001055

				G	eneral C	Chemistry - Quality Co								
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Specific Conducta	ınce (adjust	ed to 25.0°C) -	SM2510 B 2011											Bryan
Initial Cal Check	513	uS/cm				01/21/21 09:41 MRH	484		106	90 - 110			2101215	
Blank	<2.00	uS/cm		2.00	2.00	01/22/21 11:06 MRH							M123973	
Duplicate	804	uS/cm		2.00	2.00	01/22/21 11:06 MRH		803			0.124	2	M123973	
LCS	1440	uS/cm		2.00	2.00	01/22/21 11:06 MRH	1410		102	90 - 110			M123973	
LCS Dup	1370	uS/cm		2.00	2.00	01/22/21 11:06 MRH	1410		97.0	90 - 110	5.41	7.82	M123973	
Total Dissolved So	olids - SM25	40 C 2011												Bryan
Blank	<25.0	mg/L		25.0	25.0	01/06/21 13:10 MRH							M123261	
Duplicate	240	mg/L		100	100	01/06/21 13:10 MRH		232			3.39	9.13	M123261	
Reference	460	mg/L		100	100	01/06/21 13:10 MRH	501		91.8	81 - 121			M123261	
Total Hardness (E	DTA) as CaC	O3 - SM2340 (2011											Bryar
Initial Cal Check	55.7	mg/L				01/21/21 13:30 MRH	54.4		102	85 - 115			2101202	
Blank	<1.00	mg/L		1.00	1.00	01/21/21 13:30 MRH							M123427	
Duplicate	1480	mg/L		20.0	20.0	01/21/21 13:30 MRH		1360			8.65	9.52	M123427	
LCS	99.0	mg/L		1.00	1.00	01/21/21 13:30 MRH	100		99.0	90 - 110			M123427	
LCS Dup	101	mg/L		1.00	1.00	01/21/21 13:30 MRH	100		101	90 - 110	2.06	6.47	M123427	
Matrix Spike	3500	mg/L		20.0	20.0	01/21/21 13:30 MRH	2000	1360	107	87.6 - 111			M123427	
MRL Check	4.12	mg/L		1.00	1.00	01/21/21 13:30 MRH	4.00		103	70 - 130			M123427	
					Metals	(Total) - Quality Cont	rol							
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Iron - EPA 200.7 R	4.4													Bryar
Blank	<0.005	mg/L		0.001	0.005	01/12/21 11:51 PNS							M123453	
LCS	0.467	mg/L		0.001	0.005	01/12/21 11:54 PNS	0.500		93.5	84.5 - 115.4			M123453	
LCS Dup	0.463	mg/L		0.001	0.005	01/12/21 11:58 PNS	0.500		92.6	84.5 - 115.4	0.936	20	M123453	
Duplicate	0.392	mg/L		0.001	0.005	01/12/21 12:01 PNS		0.393			0.311	20	M123453	
Matrix Spike	0.853	mg/L		0.001	0.005	01/12/21 12:04 PNS	0.500	0.393	92.1	69.5 - 130.4			M123453	
Manganese - EPA	200.7 R4.4													Bryai
Blank	<0.002	mg/L		0.001	0.002	01/12/21 11:51 PNS							M123453	
LCS	0.481	mg/L		0.001	0.002	01/12/21 11:54 PNS	0.500		96.2	84.5 - 115.4			M123453	
LCS Dup	0.476	mg/L		0.001	0.002	01/12/21 11:58 PNS	0.500		95.2	84.5 - 115.4	1.07	20	M123453	
Duplicate	0.008	mg/L		0.001	0.002	01/12/21 12:01 PNS		0.008			1.23	20	M123453	

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E001055

Preparation Procedures - Quality Control

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

Turbidity - SM2130 B 2011

Bryan

		Sample Prep	aration Sumi	mary					External Dilution	
Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	Factor	Batch
E001055-01										
Fluoride	SM4500-F C 2011	1/19/21 8:08 MRH	Bryan	С	25.0	mL	25.0	mL	1	M123792
Iron	EPA 200.7 R4.4	1/11/21 11:28 BLC	Bryan	В	50.0	mL	25.0	mL	1	M123453
Manganese	EPA 200.7 R4.4	1/11/21 11:28 BLC	Bryan	В	50.0	mL	25.0	mL	1	M123453
Nitrate/Nitrite as N	SM4500-NO3-F 2011	1/7/21 9:20 EMT	Bryan	D	10.0	mL	10.0	mL	1	M123327
Nitrite as N	SM4500 NO2- B 2011	1/6/21 10:38 KT	Austin	Α	25.0	mL	25.0	mL	1	M123280
pH, Lab	SM4500-H+ B 2011	1/6/21 14:59 KT	Austin	Α	50.0	mL	50.0	mL	1	M123288
Sample Acidified to pH<2 in Lab	N/A	1/5/21 13:00 CTT	Bryan	В	100	mL	100	mL	1	M123213
Specific Conductance (adjusted to 25.0	°C) SM2510 B 2011	1/22/21 11:06 MRH	Bryan	С	25.0	mL	50.0	mL	1	M123973
Temperature @ pH Analysis	SM4500-H+ B 2011	1/6/21 14:59 KT	Austin	Α	50.0	mL	50.0	mL	1	M123288
Total Dissolved Solids	SM2540 C 2011	1/6/21 13:10 MRH	Bryan	С	25.0	mL	100	mL	1	M123261
Total Hardness (EDTA) as CaCO3	SM2340 C 2011	1/20/21 14:59 BLC	Bryan	В	2.50	mL	50.0	mL	1	M123427
Turbidity	SM2130 B 2011	1/7/21 13:24 BLC	Bryan	В	10.0	mL	10.0	mL	1	M123367
E001055-01RE2										
Sample Acidified to pH<2 in Lab	N/A	1/5/21 13:00 CTT	Bryan	E	100	mL	100	mL	1	M123236

AQUA-TECH (Chain-of-Cust	todv ar	nd Analysis	Reque	st		SC SE SECO	20	Aqu	a-Tech	Labora	itories,	Inc.		Work Order / C-O-C
			<i>4</i>					6.7		ustin		Bryaı		4. 100	054-7
Client /Project:	A		DIAL Drighing Water		(.) 8 (.)		*BCss	3.5%	Austin	ntopolis Drive ı, TX 78744	: 6	335 Phil Gram Bryan, TX 7	7807		
	8	2	DW - Drinking Water NP - Non-Potable Water	ı	(+) Container P - Plastic	Type	T10470	1		301.9559	Heat are	979.778.3			ige of 1
5 Address		itior	S - Solid	n d	G - Glass T - Teflon©		TX2	39 Test	results n		ditation/certific ated otherwise		ments un	less	V-0023 R03
Address City State O Phone /	e ZIP	Definitions	CM - Custody Maintaine CTU - Custody Transfer I	Unbroken						Sa	ample Cu	ustody			
O Phone / Email			CT - Corrected Temper SUB - Subcontracted An				Relinquished			>		San		ate /- 5	- Z/ 🔲 loed / Refrig
By relinquishing the sa Samples will be analyzed by a method that is within Aqua-T	amples listed below to Aqua-Tech Laboratories' NELAC fie				thod that is not w	ithin Anua.	by (print & sign)	X / T		The state of the s	minterior Spirk South activity or aggregate	Clie	Field T	ime X/7	Custody Sealed
Tech's fields of accreditation will be subcontracted to a NE analytes not requiring accreditation will be analyzed by a co	LAC certified lab that is certi-	fied for that me	thod. Clients will be notifi	fied of the sub	contract lab's det	tails. Other	Received by				***************************************	Clie	ent É	rate	Titled / Refrig
column. The client approves all method modifications docu		e subcontract l	ab. A current list of Aqua-				(print & sign)					ATI	L Field T	Time	CM/CTU
Client Comments:	* Preservati			eceipt in	Lab		Relinquished					Clie	ent c	Date	lced / Refrig
	1 < 6 °C (unf	frozen)	Cooler ID	T . 1	-	7	by (print & sign)				2017		L Field	l'irne	СМ/СТИ
Damanin de Carlos de Carlo	2 H2SO4			11. /		70,				M.F.		Clie	ent C	Date	loed / Refrig
HELDON STATE OF THE STATE OF TH	3 HCI		Temperature (°C) read / C		4 5	Š /	Received by (print & sign)		and the second			Пат		l'ime	□см/сти
	4 HNO3		Preservation Correct			/	Relinquished	a proportion of the second		······		Clie		Date	loed / Refrig
		- r- n c 32	Post Preservatives	1	NO YE		by (print & sign)	and the same of th				AT		Time	CM/CTU/
	5 Na2S2O3 () 1 (25000			14-80	.5 190					***************************************			Date	[27e . e . e
	6 NaOH	any salat convert per para de encouverby duran	Thermometer ID				Received by (print & sign)					rams/	1_	1/5/	Iced / Refrig
GENERAL STATE OF THE STATE OF T	7		pH Paper ID):। ।।।। ।।।।।।।।।।।।।।।।।।।।।।।।।।।।।।।	427	***************************************		CANVIST	ΠĽ	Ton	<u>14</u>	☑ Lat	,	1241	У см/ст∪
	Lab Comments														
	Comments						n processor and the second second		in the second		generalismonen		weet and the second second	DOMESTIC STREET, STREE	
Field Sample ID	Star	t I	End	С	omposite	Sample		Container Volume	i i	Preserv-		USE ONI	7		
(record field data for each sample in space belo	ow) Date	Time	Date 1	rima l			i Rostio I		Type		Cooler ID	pH Check		WORK	see below
Legacy Hills # 7		1/	5000	Time	Туре	Matrix	Bottle Count	(Size in L)	(+)	ative(s) *	OGOICI ID	pn Clieck	SUB	WORK ORDER	were construction of the c
	1.5.211	11:00		ime	Type Grab		1 4	(Size in L)	StP	ative(s) * 1, 5	est, is	priorieck	Sol	ORDER Sample	12-012-11
Analysis	7-5-21/	11:00		ime		Matrix	Count	(Size in L)	NA THE REAL PROPERTY.	Section of the Control of the Contro		phoneck		Sample	0.2-01A 1
	7-5-21/ Total (//: <u>//: </u> Coliform I		Time		Matrix	Count 1	(Size in L)	StP	Section of the Control of the Contro		PH CHECK		enominal management and	U34-01A }
Analysis Requested & Comments: SACT-PA	7-5-21/ Total ((/: 8() Coliform (-	Grab	Matrix DW	Count 1	(Size in L) 	StP	1, 5	UT?	pn Check		Sample	01A
Analysis Requested & Comments: Leggey Hills # 7 Analysis	1-5-2//	(1:00	P/A		Grab	Matrix DW	Count 1	(Size in L)	StP	1, 5		American Control of Co		Sample	032-01A
Analysis Requested & Comments: Regacy Hills # 7	1-5-2// . cl, doi	11:00 101, F	PIA Fe, NO2		Grab	Matrix DW	Count 1	(Size in L) 	StP	1, 5	UT?	American Control of Co		Sample E00	052-01A
Analysis Requested & Comments: BACT-PA Legacy Hills # F Analysis Requested & Comments: SCC ATTACHE	1-5-2//	11:00 nol. F wdne	P/A		Grab G 3 , M M	DW DW	Count 1	(Size in L) -0.12 -0.15 N.M. A. V	StP	1,5 Me 2	elt en: elt			Sample	035-01A
Analysis Requested & Comments: Le SACY Hills # 7 Analysis Requested & Comments: Le SACY Hills # 7 Analysis Analysis Requested & Comments: Le SACY Hills # 9	1-5-2// . cl, doi	11:00 101, F	PIA Fe, NO2		Grab	Matrix DW	Count 1	(Size in L) 	StP	1, 5	UT?	American Control of Co		Sample Sample	055-01A
Analysis Requested & Comments: Analysis Requested & Comments: Analysis Requested & Comments: Analysis Requested & Comments: Analysis Requested & R	1-5-2// . cl, doi	11:00 nol. F wdne	PIA Fe, NO2		Grab G 3 , M M	DW DW	Count 1	(Size in L) -0.12 -0.15 N.M. A. V	StP	1,5 Me 2	elt en: elt			Sample Sample	052-01A 055-01A
Analysis Requested & Comments: Legacy Hills # 7 Analysis Requested & Comments: Legacy Hills # 9 Analysis Requested & Comments: Analysis Requested & Comme	1-5-2// clicbi 0 ° so4, ho 1-5-21/	11:00 nd. F wdne 110.00	PIA Fe, NO2		Grab G 3 , M M	DW DW DW	Count 1	(Size in L) -0.12 -0.15 NWM9 V 2	StP	1,5 Me 2	et et et		ANA	Sample Sample Sample	032-01A
Analysis Requested & Comments: Analysis Requested & Comments: Analysis Requested & Comments: Analysis Requested & Comments: Analysis Requested & R	1-5-2// . cl, doi	11:00 nd. F wdne 110.00	PIA Fe, NO2		Grab G 3 , M M	DW DW	Count 1	(Size in L) -0.12 -0.15 N.M. A. V	StP	1,5 Me 2	elt en: elt			Sample Sample Sample	052-01A
Analysis Requested & Comments: Analysis Requested & Requested	1-5-2// Clicon SOA, NO 1-5-2//	11:00 not. F wdne 10.00	Fe, NOZ		Grab Grab	DW DW DW	Count 1	(Size in L) -0.12 -0.15 NWM9 V 2	StP	1,5 Me 2	et et et		ANA	Sample Sample Sample Sample	055-01A 055-01A
Analysis Requested & Comments: Legacy Hills # T Analysis Requested & Comments: Legacy Hills # 9 Analysis Requested & Comments: Legacy Hills # 9 Analysis Requested & Comments: Analysis	1-5-2// Clicon SOA, NO 1-5-2//	11:00 not. F wdne 10.00	Fe, NOZ		Grab Grab	DW DW DW	Count 1	(Size in L) -0.12 -0.15 NWM9 V 2	StP	1,5 Me 2	et et et		ANA	Sample Sample Sample EO Sample	035-01A 035-01A
Analysis Requested & Comments: Analysis Requested & Requested	1-5-2// Clicon SOA, NO 1-5-2//	11:00 not. F wdne 10.00	Fe, NOZ		Grab Grab	DW DW DW	Count 1	(Size in L) -0.12 -0.15 NWM9 V 2	StP	1,5 Me 2	et et et		ANA	Sample Sample Sample Sample	055-01A 055-01A
Analysis Requested & Comments: Analysis Requested & Requested	1-5-2// Clicon SOA, NO 1-5-2//	11:00 not. F wdne 10.00	Fe, NOZ		Grab Grab	DW DW DW	Count 1	(Size in L) -0.12 -0.15 NWM9 V 2	StP	1,5 Me 2	et et et		ANA	Sample Sample Sample EO Sample	052-01A 053-01A 0053-01A

Well numbers correspond to Attachment I

sample wil need to be collected and analyzed for the follo The water quality from each well will need to be assessed y Aquifer to provide adequate drinking water. Upon cor

- Nitate (88 nitogen)
- Vanganese

- Salved Solved So
- Presence/absence of total coliform bacteria

have any questions please feet free to call me at 512-773-.

Page 1 of 1

3



AQU1-G

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

TABLE OF CONTENTS

This report consists of this Table of Contents and the following pages:

Report Name	<u>Description</u>	<u>Pages</u>
949480_r03_03_ProjectResults	Ana-Lab Project P:949480 C:AQU1 Project Results t:304	2
949480_r03_06_I_ProjectTRRP	Ana-Lab Project P:949480 C:AQU1 Project TRRP Results Report for Class I	2
949480_r10_05_ProjectQC	Ana-Lab Project P:949480 C:AQU1 Project Quality Control Groups	1
949480_r99_09_CoC1_of_1	Ana-Lab CoC AQU1 949480_1_of_1	2
	Total Pages:	7



Report Page 1 of 8



Page 1 of 2



Printed: 01/07/2021

AQU1-G

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Results

					Sample	Res	sults					
	1952111	E001055-01								Received:	01/06	5/2021
Ι	Orinking Water		Collect Taken:	ed by: Client 01/04/2021	•	ech La	aboratori :00		PO:			
1	EPA 300.0 2.1			Prepared:	932770	01/0	06/2021	15:14:00	Analyzed 932770	01/06/2021	15:14:00	ATN
	Parameter			Results	U	nits	RL		Flags	CAS		Bottle
VELAC	Chloride			41.9	m	g/L	3.00					01
1	EPA 300.0 2.1			Prepared:	932770	01/	06/2021	18:07:00	Analyzed 932770	01/06/2021	18:07:00	ATN
	Parameter			Results	U	nits	RL		Flags	CAS		Bottle
VELAC	Sulfate			1660	m	g/L	10.0					01
				S	ample P	repa	ration					
	1952111	E001055-01								Received:	01/06	5/2021
				01/04/2021								
				Prepared:		01/0	07/2021	09:27:45	Calculated	01/07/2021	09:27:45	CAL
:	Environmenta	al Fee (per Project)		Verified								
-	Cooler Return			Prepared:		01/	07/2021	15:00:00	Analyzed	01/07/2021	15:00:00	MG
		r/No bottles Require		Returned								



Report Page 2 of 8

AQU1-G

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



Page 2 of 2

Project
949480

Printed: 01/07/2021

Qualifiers:

We report results on an As Received or wet basis unless marked Dry Weight. Unless otherwise noted, testing was performed at Ana-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No LA026, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-068-0. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation.

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.

U

Trey Peery, MA, Project Manager



Report Page 3 of 8

RESULTS



Page 1 of 2

Project 949480

01/07/2021 Printed

DW

Bryan, TX 77807-9104									
<u>CAS</u> Parameter	Results	MDL	SDL	MQL	MQLAdj	Flag Units	Target	Bottle	Dilute
Drinking Water	Ion Chromatography						EPA	300.0 2.1	
1952111 E001055-01									
	Collection:	01/04/20	021	11:00:00	Client		Received:	01/06/2021	
Prepared: 932770									
			Analyzed:		932770	1/6/21	15:14:00		
Chloride	41.9	0.0385	0.385	0.300	3.00	mg/L	250 Secondary Standard	01	10.00
Sulfate	1660	0.0871	8.71	0.100	10.0	mg/L	250	01	100.00

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

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

AQU1

Aqua-Tech Laboratories

635 Phil Gramm Blvd.

John Brien

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)

Secondary Standard

We report results on an As Received or wet basis unless marked Dry Weight. Unless otherwise noted, testing was performed at Ana-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No. 2018-126, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-o68-o. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation. 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.



NELAP-accredited #T104704201-20-17

RESULTS

ANA LAB 1 Testing the Limits of Science and Service 3

Page 2 of 2



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DW

AQU1

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Trey Peery, MA, Project Manager



Quality Control



Page 1 of 1

Project 949480

Printed 01/07/2021

AQU1-G

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

Analytical Set	932770									EPA:	300.0 2.1
				В	llank						
<u>Parameter</u>	PrepSet	Reading	MDL	MQL	Units			File			
Chloride	932770	0.043	0.0385	0.300	mg/L			121920307			
Sulfate	932770	0.092	0.0871	0.100	mg/L			121920307			
				•	ccv						
<u>Parameter</u>		Reading	Known	Units	Recover%	Limits%		File			
Chloride		9.97	10.0	mg/L	99.7	90.0 - 110		121920305			
Chloride		10.0	10.0	mg/L	100	90.0 - 110		121920313			
Chloride		9.85	10.0	mg/L	98.5	90.0 - 110		121920323			
Chloride		9.96	10.0	mg/L	99.6	90.0 - 110		121920334			
Sulfate		9.90	10.0	mg/L	99.0	90.0 - 110		121920305			
Sulfate		9.92	10.0	mg/L	99.2	90.0 - 110		121920313			
Sulfate		9.79	10.0	mg/L	97.9	90.0 - 110		121920323			
Sulfate		9.76	10.0	mg/L	97.6	90.0 - 110		121920334			
				LC	S Dup						
<u>Parameter</u>	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	932770	4.72	4.73		5.00	85.0 - 110	94.4	94.6	mg/L	0.212	20.0
Sulfate	932770	4.86	4.89		5.00	88.0 - 110	97.2	97.8	mg/L	0.615	20.0
					MS						
<u>Parameter</u>	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	1951388	201		135	50.0	80.0 - 120	132 *		mg/L		20.0
Chloride	1951388	196		135	50.0	80.0 - 120	122 *		mg/L		20.0
Sulfate	1951388	148		86.0	50.0	80.0 - 120	124 *		mg/L		20.0
Sulfate	1951388	144		86.0	50.0	80.0 - 120	116		mg/L		20.0
				P	MSD						
<u>Parameter</u>	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	1951863	38.2	37.7	28.2	10.0	80.0 - 120	100	95.0	mg/L	5.13	20.0
Sulfate	1951863	41.1	40.7	31.3	10.0	80.0 - 120	98.0	94.0	mg/L	4.17	20.0

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

 ${\sf Blank-Method\,Blank;\,CCV-Continuing\,Calibration\,Verification;\,MS-Matrix\,Spike}$



Report Page 6 of 8

CONTAINERS SUPPLIED:

) E001055-01 [E] - [SUB] ANA CI SO4 0.25LP

Split from -01 AJ

Chloride - EPA 300.0 Analysis Request for.

Sample ID: E001055-01

SO4 DW - EPA 300.0

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

would sample time - cotto



Chain-of-Custody & Analysis Request

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

SHIPPED TO:

Phone: (903) 984-0551

Ana-Lab Corp. (NELAP Cert. T104704201) 2600 Dudley Road Kilgore, TX 75662

Fax: (903) 984-5914

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.

Sampled: 01/04/21 00:00 Ht00 Matrix Drinking Water

Laboratory ID->> | 453-

C-O-C #

903 - E001055

T104704371

ort Page 7 of 8

Relinquished by: (print & sign) Received by: (print & sign) Lone Star Rayshawn Thompson Ana-Lab Cooler Temperature (°C) Line below documents condition at receipt in lab (snipped to) listed above. Cooler 1 X X Received in Lab X ATL-Austin Temp. Read (TR) N/A ATL-Bryan Corrected Temp. (CT) N N Cooler 1: Sampler AQU1 - Z1000QS5C 1/6/20 WYDING 10 COTT > 1/5/21 Date Please email reports to: reporting@aqua-techlabs.com Please return cooler(s) to: Austin Facility Time Received load CTU
Condition Good
Not Recrid load wrong time cotto Custody Sealed
Not Chilled Sample info 5 DAY TAT Abbreviations: DW - Drinking Water
NP - Non-Potable Water Aqua-Tech Comments and Special Instructions CTU - Custody Transfer Unbroken LP - Liter Plastic LG - Liter Glass StP - Sterile Plastic BRET

Tracking # and Tent Pee Attached for

Page 1 of 1

949480 CoC Print Group 001 of 001

12/29/2020

https://www2.lso.com/weblabels/?labelsize=0&combinedlabel=1&sessionkey=%7B62C4FBAD-29AF-4846-9140-211D28BDC8F7%7D





1-800-800-8984 www.lso.com

SHIP TO: RECEIVING ANA LAB CORP 2600 DUDLEY RD KILGORE, TX 75662 9039840551

From: CHRISTIE TONNU AQUA TECH LABS 3512 MONTOPOLIS DR AUSTIN, TX 78744 5123019559



LSO ECONOMY NEXT DAY 3:00 IN MOST AREAS LATER IN REMOTE AREAS

PRINT DATE: 12/29/2020 QUICKCODE: WEIGHT REF 1: 1D00V.0000 REF 2: WEIGHT: 20.00LBS

Therm#: 6443 Corr Fact: 0.0 C

Fold on above line and place shipping label in pouch on package. Please be sure the barcodes and addresses can be read and scanned. Shipping Instructions

- 1. Fold this page along the horizontal line above.
- 2. Place this Airbill in the shipping label pouch on the package you are shipping. Please be sure the barcodes and addresses can be read and scanned.
- 3. To locate a drop box near you, click on Find A Drop Box from the home page main menu.
- 4. To schedule a pickup, click on Request Pickup.

WARNING: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your Lone Star Overnight account number.

This label is valid for use for 3 months from the date printed. Use of expired labels may result in delayed billing and / or additional research charges. LIMIT

OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES OR RESIDENTIAL DELIVERIES.

.

Water Quality

Well No. 9



Email information for report date: 1/8/21 17:08

E001056

Apex Drilling

Attn: Michael Becker apexdrilling.becker@yahoo.com

PO Box 867 Marble Falls, TX 78654

****Attention Austin Laboratory Clients****
Aqua-Tech is excited to announce that our
Austin Laboratory is expanding and moving to a
new location!

We will close our current Austin Laboratory location on Friday, October 23, 2020 at 12:00 p.m. to begin the moving process and will re-open at our new location on Monday, October 26 at 8:00 a.m.

Austin Laboratory address as of October 26, 2020: 3512 Montopolis Drive Austin, TX 78744

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

CORPORATE OFFICE

635 Phil Gramm Boulevard Bryan, TX 77807

Phone: (979) 778-3707 Fax: (979) 778-3193



AUSTIN OFFICE

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

TCEQ DW Lab ID TX 239

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 required by the State of Texas.

DWP Accreditation 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.

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.

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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

June M. Brien

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Page 1 of 4 E001056 1 ATL 110720 FIN Is 01 08 21 1708

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



AUSTIN OFFICE

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

Apex Drilling

17:08

Report Printed:

1/8/21

E001056

LEGACY HILLS NO9			Collected: 01/05/21 10:00 by CLIENT Received: 01/05/21 12:41 by Christie Tonnu			<i>Type</i> Grab		<i>Matrix</i> Drinki	ng Water	C-O-C # 1054-7		
Lab ID# E001056-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	В	atch	
Microbiological Analyses												
Total Coliforms	Absent	N/A		N/A	N/A	N/A	Austin	01/05/21 15:21 KT	SM9223 B 2004	N	1123260	NEL
Escherichia coli (E.coli)	Absent	N/A		N/A	N/A	N/A	Austin	01/05/21 15:21 KT	SM9223 B 2004	N	1123260	NEL
Jon and Tami Shake												

W 411 Old Red Ranch Rd Dripping Springs TX 78620

Microbiological Analyses - Quality Control Log10 Comparison														
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Range	Control Limit	Batch	
Escherichia co	li (E.coli) - SM9	223 B 2004												Austin
Duplicate	Absent	N/A		N/A	N/A	01/05/21 15:11 KT		Absent				200	M123260	
Blank	Absent	N/A		N/A	N/A	01/05/21 15:21 KT							M123260	
Total Coliforms	- SM9223 B 20	04												Austin
Duplicate	Absent	N/A		N/A	N/A	01/05/21 15:11 KT		Absent				200	M123260	
Blank	Absent	N/A		N/A	N/A	01/05/21 15:21 KT							M123260	

	External Dilution								
Sample	Method	Prepared	Lab	Bottle Initial	Units	Final	Units	Factor	Batch
E001056-01									
Escherichia coli (E.coli)	SM9223 B 2004	1/5/21 15:05 KT	Austin	A 100	mL	100	mL	1	M123260
Total Coliforms	SM9223 B 2004	1/5/21 15:05 KT	Austin	A 100	mL	100	mL	1	M123260

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LABORATORIES INC.	hain-of-Custody	and Analys	is Reqι	ıest		SLAU ACCA	9	Aqu	a 10011	1	tories,	IIIG.		Work Order / C-O-C
Olivert Physics 4	**************************************	-		******************************					ustin		Brya		1	054-7
client /Project: p Name APEX D741111116		DW - Drinking Wate		(+) Container P - Plastic	Туре	T10470	04371	Austin,	topolis Drive TX 78744 301.9559	s 6	335 Phil Gran Bryan, TX 979.778.3	77807	Pa	ige \ of \
Address City State O Phone /		S - Solid CM - Custody Mair CTU - Custody Tran CT - Corrected Te		G - Glass T - Teflon©		TX2	170	st results m		ditation/certific		ments uni	less	V-0023 R03
City State	ZIP	CM - Custody Mair CTU - Custody Tran	nsfer Unbroken						***************************************	ample Cu				
O Phone / Email		□ CT - Corrected Te SUB - Subcontracte				Relinquished	nancia and minimum companion make make a datum		;	***************************************	timed	mpler D	ate /- 5	- 2/ 🔲 loed / Refrig
	nples listed below to Aqua-Tech, the			method that is not w	vithin Aoua-	by (print & sign)	K // "			nini ek likek Berryak manaya	Clie	ent Ti L Field	me / 7	Custody Sealed
Tech's fields of accreditation will be subcontracted to a NEL analytes not requiring accreditation will be analyzed by a co	AC certified lab that is certified for the	nat method. Clients will be	notified of the	subcontract lab's de	tails. Other	Received by	rana ana an' ao amin'ny fivondronana ao amin'ny fivondronana ao amin'ny fivondronana ao amin'ny fivondronana a			re-si he inizazione Probresia constitucione	Cli	ent D	ate	dced / Refrig
column. The client approves all method modifications docur		tract lab. A current list of A				(print & sign)					AT	L Field Ti	ime	CM/CTU
Client Comments:	* Preservatives		Receipt	in Lab		Relinquished	***************************************				CI	ent D	ate	lced / Refrig
	1 < 6 °C (unfrozen)	Coole	er ID:	JT	47	by (print & sign)			001	007	TA [L Field Ti	ime	□см/сти
	2 H2SO4	Temperature	(°C): 1 U	4/	vy/	Received by			10,00		Ci	ent D	ate	lced / Refrig
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	5 Na2S2O3 07 (450)	Post Preservati	ives ? YE	S NO YE	S NO	by (print & sign)	1)				A1	TL Field T	ime	CM / CTU / sealed
	6 NaOH	Thermomete	er ID : [) 🧻 [v4480		Received by	*	\sim				D) ate	Cond Good
	7	рН Рар	er ID : 👣	55987		(print & sign)	Chris	tie	1001	14	Ø La	b	ime 1241	□ (см/сти
	Lab Comments													
F 1 by C 2 and 5 by S	L Start	End	l	Composite	Sample		Containe	er(s)		LAB	USE ON	LY BE	LOW (in	itials (TT)
Field Sample ID (record field data for each sample in space below	w) Date Tin	ne Date	Time	Type	Matrix	Bottle Count	Volume (Size in L)	Type (+)	Preserv- ative(s) *	Cooler ID	pH Check	SUB	WORK ORDER	see below
Legacy H://5 # 7	1-5.2.1/11.		aleparente de la companya della companya della companya de la companya della comp								1	1001		
	1. 2 41.111.6	10	and the same of th	Grab	DW	1	0.12	StP	1, 5	elt	A Ministerior	S	Sample	12-011
Analysis Requested & Randon Analysis	Total Colifo	m P/A	SERVICES .	Grab	DW	1	0.15			el t	/ Salestander		Sample	V22-01A 1
Analysis Requested & Comments: Analysis	Total Colifo	rm P/A		Grab	DW		0.15 Nova	StP		Ut UT?	A STANCES CONTRACTOR OF CONTRA		Sample Sample	V52-01A)
Requested &	1-5-2//11:0	20		Ĝ	DW		V.15				Company of the Compan		Sample	VSA-OLA V
Requested & BACT-DA Legacy Hills # 7 Analysis	1-5-2//11:	F, Fe, N	D2, N	Ĝ	DW		0.15 Nova			UT?	, washing		Sample Sample	052
Requested & BACT-DA Legacy Hills # 7 Analysis	1-5-2//11:	F, Fe, N	02, N	Ĝ	DW , pH,		0.15 vong 2			CT?			Sample Sample	052
Requested & BACT-DA Legacy Hills # 7 Analysis	1-5-2//11:	F, Fe, N	D2, N	Ĝ	DW		0.15 Nova			UT?			Sample Sample	052
Requested & Comments: Ze Sacy Hills # 7 Analysis Requested & Comments: Sec ATTACHE & Legacy Hills # 9 Analysis	1-5-2//11:000d	F, Fe, N ney, TOS	D2, N	Ĝ	DW , pH,		0.15 vong 2	nu P	me z	CT?			Sample Sample Sample	052
Requested & Comments: Legacy Hills # 7 Analysis Requested & Comments: Legacy Hills # 9 Analysis	1-5-2//11:0 cli condi 0 so4, havd 1-5:2//10	F, Fe, N Ney, TOS	D2, N	G 03, MN G	DW PH		0.15 vong: 2	nu P	me z	cor:		ANA	Sample Sample Sample	052
Requested & Comments: Legacy Hills # 7 Analysis Requested & Comments: Legacy Hills # 9 Analysis	1-5-2//11:0 cli condi 0 so4, havd 1-5:2//10	F, Fe, N Ney, TOS	02, N	Ĝ	DW , pH,		0.15 vong 2	nu P	me z	CT?			Sample Sample Sample	052
Requested & Comments: Legacy Hills # 7 Analysis Requested & Comments: Legacy Hills # 9 Analysis Requested & Comments: Legacy Hills # 9 Analysis Requested & Comments: Analysis Requested & Comments: Analysis Requested & Requeste	1-5-21/10.	F, Fe, N Ney, TOS	D2, N	G 03, MN G	DW PH		0.15 vong: 2	nu P	me z	cor:	-96**	ANA	Sample Sample Sample	052
Requested & Comments: Legacy Hills # 7 Analysis Requested & Comments: Legacy Hills # 9 Analysis Requested & Comments: Legacy Hills # 9 Analysis Analysis	1-5-21/10.	F, Fe, N Ney, TOS	02, N	G 03, MN G	DW PH		0.15 vong: 2	nu P	me z	cor:	-96**	ANA	Sample Sample EOD Sample EOD	052
Requested & Comments: Legacy Hills # 7 Analysis Requested & Comments: Legacy Hills # 9 Analysis Requested & Comments: Legacy Hills # 9 Analysis Requested & Comments: Analysis Requested & Comments: Analysis Requested & Requeste	1-5-21/10.	F, Fe, N Ney, TOS	D2, N	G 03, MN G	DW PH		0.15 vong: 2	nu P	me z	cor:	-96**	ANA	Sample Sample Sample Sample	052

Well numbers correspond to Attachment I

sample wil need to be collected and analyzed for the follo The water quality from each well will need to be assessed y Aquifer to provide adequate drinking water. Upon cor

- Nitrate (as nitrogen)
- Manganese
- Acres of the Control - Superior
- Presence/absence of total coliform bacteria

have any questions please feet free to call me at 512-773-.

Email information for report date: 1/25/21 14:36

E001057

Apex Drilling

Attn: Michael Becker apexdrilling.becker@yahoo.com

PO Box 867 Marble Falls, TX 78654

****Attention Austin Laboratory Clients****
Aqua-Tech is excited to announce that our
Austin Laboratory is expanding and moving to a
new location!

We will close our current Austin Laboratory location on Friday, October 23, 2020 at 12:00 p.m. to begin the moving process and will re-open at our new location on Monday, October 26 at 8:00 a.m.

Austin Laboratory address as of October 26, 2020: 3512 Montopolis Drive Austin, TX 78744

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

CORPORATE OFFICE

635 Phil Gramm Boulevard Bryan, TX 77807

Phone: (979) 778-3707 Fax: (979) 778-3193



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TCEQ DW Lab ID TX 239

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 required by the State of Texas.

DWP Accreditation 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.

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.

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June M. Brien, Technical Director

June M. Brien

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Page 1 of 14 E001057_1 ATL 110720 FIN_Is 01 25 21 1435

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Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

1/25/21

14:36 E001057

Legacy Hills #9			01/05/21 10:00 by CLIEN 01/05/21 12:41 by Christi			<i>Type</i> Grab		<i>Matrix</i> Drinki	ng Water	C-O-C # 1054-7		
Lab ID# E001057-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Ва	tch	
General Chemistry												
Total Dissolved Solids	2880	mg/L		25.0	100	100	Bryan	01/06/21 13:10 MRH	SM2540 C 2011	M1	23261	NEL
Nitrate as N (NO3N)	<0.0200	mg/L			0.0200	0.0200	Calc	01/07/21 13:06 KT	SM4500-NO3-F 20	11 [C/	ALC]	NEL
Nitrite as N	<0.01	mg/L	J (0.002)	0.002	0.002	0.01	Austin	01/06/21 10:38 KT	SM4500 NO2- B 2	011 M1	23280	NEL
Nitrate/Nitrite as N	<0.02	mg/L		0.02	0.02	0.02	Bryan	01/07/21 13:06 EMT	SM4500-NO3-F 20	11 M1	23327	ANR
Total Hardness (EDTA) as CaCO3	2050	mg/L		1.00	25.0	25.0	Bryan	01/20/21 08:15 MRH	SM2340 C 2011	M1	23865	NEL
Fluoride	2.03	mg/L		0.04	0.04	0.10	Bryan	01/19/21 08:08 MRH	SM4500-F C 2011	M1	23792	NEL
pH, Lab	7.6	S.U.	Hold-03		N/A	N/A	Austin	01/06/21 14:59 KT	SM4500-H+ B 2011	M1	23288	DWP
Temperature @ pH Analysis	23.9	Deg. C			N/A	N/A	Austin	01/06/21 14:59 KT	SM4500-H+ B 2011	l M1	23288	DWP
Specific Conductance (adjusted to 25.0°C)	3460	uS/cm		2.00	5.00	5.00	Bryan	01/22/21 11:06 MRH	SM2510 B 2011	M1	23973	DWP,NEL
Metals (Total)												
Iron	0.046	mg/L		0.002	0.002	0.010	Bryan	01/07/21 18:23 PNS	EPA 200.7 R4.4	M1	23370	NEL
Manganese	0.007	mg/L		0.002	0.002	0.005	Bryan	01/07/21 18:23 PNS	EPA 200.7 R4.4	M1	23370	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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3512 Montopolis Dr. Suite A Austin, TX 78744 Phone: (512) 301-9559 Fax: (512) 301-9552 **Analytical Report**

Apex Drilling

Report Printed:

14:36 1/25/21

E001057

				G	eneral (Chemistry - Quality Co	ontrol							
	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	0.42	mg/L				01/19/21 08:08 MRH	0.428		97.4	90 - 110			2101170	
Low Cal Check	0.10	mg/L				01/19/21 08:08 MRH	0.0999		98.9	70 - 130			2101170	
Blank	<0.10	mg/L		0.04	0.10	01/19/21 08:08 MRH							M123792	
LCS	0.79	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799		98.6	90 - 110			M123792	
LCS Dup	0.77	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799		96.6	90 - 110	2.05	6.23	M123792	
Matrix Spike	3.05	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799	2.15	113	78.1 - 125			M123792	
Matrix Spike Dup	3.06	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799	2.15	114	78.1 - 125	1.10	5.72	M123792	
Nitrate/Nitrite as N	- SM4500-N	IO3-F 2011												Bryan
Initial Cal Check	1.39	mg/L				01/07/21 13:06 EMT	1.40		99.4	90 - 110			2101055	
Blank	<0.02	mg/L		0.02	0.02	01/07/21 13:06 EMT							M123327	
LCS	0.46	mg/L		0.02	0.02	01/07/21 13:06 EMT	0.500		93.0	91.3 - 109			M123327	
LCS Dup	0.47	mg/L		0.02	0.02	01/07/21 13:06 EMT	0.500		94.2	91.3 - 109	1.28	6.8	M123327	
Matrix Spike	0.63	mg/L		0.02	0.02	01/07/21 13:06 EMT	0.500	0.13	99.8	94.7 - 117			M123327	
Matrix Spike Dup	0.62	mg/L		0.02	0.02	01/07/21 13:06 EMT	0.500	0.13	98.8	94.7 - 117	1.01	8.65	M123327	
MRL Check	0.02	mg/L		0.02	0.02	01/07/21 13:06 EMT	0.0200		110	70 - 130			M123327	
Nitrite as N - SM45	00 NO2- B	2011												Austin
Blank	<0.01	mg/L		0.002	0.01	01/06/21 10:38 KT							M123280	
LCS	0.08	mg/L		0.002	0.01	01/06/21 10:38 KT	0.0800		99.3	90 - 110			M123280	
LCS Dup	0.08	mg/L		0.002	0.01	01/06/21 10:38 KT	0.0800		103	90 - 110	3.91	8.12	M123280	
Matrix Spike	0.08	mg/L		0.002	0.01	01/06/21 10:38 KT	0.0800	<0.01	96.3	70.6 - 117			M123280	
Matrix Spike Dup	0.08	mg/L		0.002	0.01	01/06/21 10:38 KT	0.0800	<0.01	97.6	70.6 - 117	1.36	8.18	M123280	
MRL Check	<0.01	mg/L	J (0.009)	0.002	0.01	01/06/21 10:38 KT	0.0100		94.2	70 - 130			M123280	
pH, Lab - SM4500-	H+ B 2011													Austin
Duplicate	7.6	Std Units				01/06/21 14:59 KT		7.6			0.657	1.18	M123288	
Reference	6.8	Std Units				01/06/21 14:59 KT	6.86		99.7	95 - 105			M123288	
Reference	9.1	Std Units				01/06/21 14:59 KT	9.18		99.3	95 - 105			M123288	
Reference	6.9	Std Units				01/06/21 14:59 KT	6.86		100	95 - 105			M123288	
Reference	9.1	Std Units				01/06/21 14:59 KT	9.18		99.6	95 - 105			M123288	

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Apex Drilling

Report Printed:

1/25/21 14:36 E001057

				•	eneral C	hemistry - Quality Co	ontroi							
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Specific Conducta	ance (adjust	ed to 25.0°C) -	SM2510 B 2011											Bryan
Initial Cal Check	513	uS/cm				01/21/21 09:41 MRH	484		106	90 - 110			2101215	
Blank	<2.00	uS/cm		2.00	2.00	01/22/21 11:06 MRH							M123973	
Duplicate	804	uS/cm		2.00	2.00	01/22/21 11:06 MRH		803			0.124	2	M123973	
LCS	1440	uS/cm		2.00	2.00	01/22/21 11:06 MRH	1410		102	90 - 110			M123973	
LCS Dup	1370	uS/cm		2.00	2.00	01/22/21 11:06 MRH	1410		97.0	90 - 110	5.41	7.82	M123973	
Total Dissolved S	olids - SM25	40 C 2011												Bryar
Blank	<25.0	mg/L		25.0	25.0	01/06/21 13:10 MRH							M123261	
Duplicate	240	mg/L		100	100	01/06/21 13:10 MRH		232			3.39	9.13	M123261	
Reference	460	mg/L		100	100	01/06/21 13:10 MRH	501		91.8	81 - 121			M123261	
Total Hardness (E	DTA) as CaC	O3 - SM2340 C	2011											Bryai
Initial Cal Check	52.0	mg/L				01/20/21 08:15 MRH	54.4		95.6	85 - 115			2101193	
Blank	<1.00	mg/L		1.00	1.00	01/20/21 08:15 MRH							M123865	
Duplicate	11.0	mg/L		1.00	1.00	01/20/21 08:15 MRH		10.0			9.52	9.52	M123865	
LCS	100	mg/L		1.00	1.00	01/20/21 08:15 MRH	100		100	90 - 110			M123865	
LCS Dup	104	mg/L		1.00	1.00	01/20/21 08:15 MRH	100		104	90 - 110	3.92	6.47	M123865	
Matrix Spike	110	mg/L		1.00	1.00	01/20/21 08:15 MRH	100	10.0	100	87.6 - 111			M123865	
MRL Check	5.00	mg/L		1.00	1.00	01/20/21 08:15 MRH	4.00		125	70 - 130			M123865	
					Metals	(Total) - Quality Cont	rol							
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Iron - EPA 200.7 R	4.4													Bryar
Blank	<0.010	mg/L		0.002	0.010	01/07/21 17:41 PNS							M123370	
LCS	1.12	mg/L		0.002	0.010	01/07/21 17:44 PNS	1.00		112	84.5 - 115.4			M123370	
LCS Dup	0.969	mg/L		0.002	0.010	01/07/21 18:05 PNS	1.00		96.9	84.5 - 115.4	14.3	20	M123370	
Duplicate	0.045	mg/L		0.002	0.010	01/07/21 18:09 PNS		0.046			2.05	20	M123370	
Matrix Spike	0.922	mg/L		0.002	0.010	01/07/21 18:12 PNS	1.00	0.046	87.7	69.5 - 130.4			M123370	
Manganese - EPA	200.7 R4.4													Brya
Blank	<0.005	mg/L		0.002	0.005	01/07/21 17:41 PNS							M123370	
LCS	1.13	mg/L		0.002	0.005	01/07/21 17:44 PNS	1.00		113	84.5 - 115.4			M123370	
LCS Dup	1.05	mg/L		0.002	0.005	01/07/21 18:05 PNS	1.00		105	84.5 - 115.4	7.58	20	M123370	
	0.007	mg/L		0.002	0.005	01/07/21 18:09 PNS		0.007			0.804	20	M123370	
Duplicate	0.007	mg/L		0.002	0.000									

CORPORATE OFFICE

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



AUSTIN OFFICE

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

Apex Drilling

Report Printed:

1/25/21 14:36

E001057

Preparation Procedures - Quality Control

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

Turbidity - SM2130 B 2011

Bryan

		Sample Prep	aration Sum	mary					External Dilution	
Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	Factor	Batch
E001057-01										
Fluoride	SM4500-F C 2011	1/19/21 8:08 MRH	Bryan	С	25.0	mL	25.0	mL	1	M123792
Iron	EPA 200.7 R4.4	1/7/21 13:54 BLC	Bryan	В	10.0	mL	10.2	mL	1	M123370
Manganese	EPA 200.7 R4.4	1/7/21 13:54 BLC	Bryan	В	10.0	mL	10.2	mL	1	M123370
Nitrate/Nitrite as N	SM4500-NO3-F 2011	1/7/21 9:20 EMT	Bryan	D	10.0	mL	10.0	mL	1	M123327
Nitrite as N	SM4500 NO2- B 2011	1/6/21 10:38 KT	Austin	Α	25.0	mL	25.0	mL	1	M123280
pH, Lab	SM4500-H+ B 2011	1/6/21 14:59 KT	Austin	Α	50.0	mL	50.0	mL	1	M123288
Sample Acidified to pH<2 in Lab	N/A	1/5/21 13:00 CTT	Bryan	В	100	mL	100	mL	1	M123213
Specific Conductance (adjusted to 25.0	0°C) SM2510 B 2011	1/22/21 11:06 MRH	Bryan	С	20.0	mL	50.0	mL	1	M123973
Temperature @ pH Analysis	SM4500-H+ B 2011	1/6/21 14:59 KT	Austin	Α	50.0	mL	50.0	mL	1	M123288
Total Dissolved Solids	SM2540 C 2011	1/6/21 13:10 MRH	Bryan	С	25.0	mL	100	mL	1	M123261
Total Hardness (EDTA) as CaCO3	SM2340 C 2011	1/20/21 8:15 MRH	Bryan	В	2.00	mL	50.0	mL	1	M123865
Turbidity	SM2130 B 2011	1/7/21 13:24 BLC	Bryan	В	10.0	mL	10.0	mL	1	M123367
E001057-01RE1										
Sample Acidified to pH<2 in Lab	N/A	1/5/21 13:00 CTT	Bryan	E	100	mL	100	mL	1	M123236

AQUA-TECH LABORATORIES INC.	Chain-of-Cus	tody ar	nd Analysis	Reques	st		\$5.00 p.ccs	9.6	-	ıa-Tech ∖ustin	Labora	i tories , Brya			Work Order / C-O-C
Client /Project:							64	Ar.		ontopolis Driv	е б	635 Phil Gran			1054-7
Name A OF A OF III and I	d	į	DW - Drinking Water NP - Non-Potable Wate	УГ	(+) Container Type P - Plastic		T10470	4371	Austi	n, TX 78744 1.301.9559		Bryan, TX 1 979.778.3	77807		Page \ of \lambda
Address		tion	S - Solid		G - Glass T - Teflon©	NAME OF TAXABLE PARTY.	TX2	39 [™]	est results r		ditation/certificated otherwis		ments u	nless	V-0023 R03
Address City Phone /	ZIP	elija	CM - Custody Maintaine CTU - Custody Transfer	Unbroken		de la constante de la constant				S	ample Cı	ustody			
Ö Phone / Email			CT - Corrected Temper SUB - Subcontracted Ar			Silvanian and a	Relinquished		Marie Care		in de mentiones en em anciento a consensado de la consens	timend	mpler	Date /	5 - 2 / 🔲 loed / Refrig
	mples listed below to Aqua-				and that is not within A		by (print & sign)	Carrier Carrier			terricologie State Montanto consegue	Clie	ent . L. Field	Time	Z = 4 / Custody Sealed
Tech's fields of accreditation will be subcontracted to a NE analytes not requiring accreditation will be analyzed by a co	LAC certified lab that is certi	ified for that me	ethod. Clients will be notif	fied of the subc	contract lab's details. C	her			E-19-1-X-Variance			Cli	ent	Date	16ed / Refrig
column. The client approves all method modifications docu		e subcontract la	ab. A current list of Aqua-				Received by (print & sign)					AT	L Field	Time	□ cm / ctu
Client Comments:	* Preservati			leceipt in I	Lab	\dashv	Relinquished		THE ALLEN AND TH			CII	ent	Date	Iced / Refrig
	1 < 6 °C (un		Cooler ID			$\prec l'$	by (print & sign)			<i>a</i> ′	4007	And the second second	L Field	Time	Псм/сти
Name de la constante de la con	2 H2SO4			11. 4	7 3	7		***************************************		450		()	ent	Date	lced / Refrig
Management	3 HCI		Temperature (°C) read / C) - 1	5 /		Received by (print & sign)		and the second second			AT		Time	см/стu
recent control of the	4 HNO3		Preservation Correct				Relinquished		And the second s					Date	lced / Refrig
	5 Na2S2O3 (1	したわしま	Post Preservatives		NO YES N		by (print & sign)	and the same of th				A1		Time	CM / CTU /
	6 NaOH	95000	Thermometer ID		1/				~					Date	
Marie Control of the	7		pH Paper ID				Received by (print & sign)	Unvis	itie	Ton	nи	☑ La	b	1/5 Time 124	Iced / Refrig
	Lab														
	Comments														
Field Comple ID	Comments	nt	End		omnosito Sam	nia		Contain	er(s)	There are a reputational entire is considered.	LAB	USE ON	LY BE	LOW (initials (T)
Field Sample ID (record field data for each sample in space belo	Star	rt Time		Co Time	omposite Sam	. [Bottle Count	Contain Volume (Size in L)	er(s)	Preserv- ative(s) *	LAB Cooler ID	T	m	ELOW (WORK ORDER	C 0.0 10 01 6141
	Star			1		rix	- 4	Volume (Size in L)	Type		Ī	T	77	WORK	C 0.0 10 01 5741
(record field data for each sample in space below the first of the fir	Star Date /-5-2/	Time	Date 1	1	Type Ma	rix	Count	Volume (Size in L)	Type (+)	ative(s) *	Cooler ID	T	suB	WORK ORDEF Sample	see below
(record field data for each sample in space below the first of the fir	Star Date /-5-2/		Date 1	1	Type Ma	rix	Count 1	Volume (Size in L)	Type (+)	ative(s) *	Cooler ID	T	suB	WORK ORDER	see below
(record field data for each sample in space below the first of the fir	Star Date /-5-2/	Time	Date 1	1	Type Mar Grab D	rix V	Count 1	Volume (Size in L) 	Type (+)	ative(s) *	Cooler ID	T	suB	WORK ORDEF Sample	see below
(record field data for each sample in space below the first of the fir	Star w) Date /-5-2// Total (Time (1:00) Coliform F (1:00) Ad F	PIA TE, NO	Time	Grab D'	rix V	Count 1	Volume (Size in L)	Type (+)	ative(s) *	Cooler ID	T	SUB	WORK ORDEF Sample	see below
(record field data for each sample in space below the sample in space	Star w) Date /-5-2// Total (Time (1:00) Coliform F (1:00) Ad F	PIA TE, NO	Time	Grab D'	rix V	Count 1	Volume (Size in L) 	Type (+)	ative(s) *	Cooler ID	T	SUB	WORK ORDEF Sample	see below
(record field data for each sample in space below the sample in space	Star w) Date /-5-2// Total (Time (1:00 Coliform F (1:00 Not. F whene	PIA TE, NO	Time	Grab D	v v	Count 1	Volume (Size in L) -0.12 0.15 V WMg	Type (+)	ative(s)* 1, 5	Cooler ID Lt LT ? CLt	T	SUB	WORK ORDEF Sample	see below
(record field data for each sample in space below the first of the fir	Star w) Date /-5-2// Total (Time (1:00) Coliform F (1:00) Ad F	PIA TE, NO	Time	Grab D'	v v	Count 1	Volume (Size in L) 	Type (+)	ative(s) *	Cooler ID	pH Check	SUB	WORK ORDEF Sample	see below
(record field data for each sample in space below the sample in space	Star w) Date /-5-2// Total (Time (1:00 Coliform F (1:00 Not. F whene	PIA TE, NO	Time	Grab D	v v	Count 1	Volume (Size in L) -0.12 0.15 V WMg	Type (+)	ative(s)* 1, 5	Cooler ID Lt LT ? CLt	pH Check	SUB	WORK ORDEF Sample	see below
(record field data for each sample in space below the sample in space	Star w) Date /-5-2// Total (/-5-2// C1: c0: S04, hc /-5-2//	Time (1:00) Coliform F (1:00) Not: F where 10.00	PIA TE, NO	Time	Grab D	xir.	Count 1	Volume (Size in L) -0.12 0.15 VVVQ	Type (+)	ative(s)* 1, 5	Cooler ID Ut CIT? CIT	pH Check	SUB I SUB	WORK ORDEF Sample Sample	see below
(record field data for each sample in space below the sample in space	Star w) Date /-5-2// Total (Time (1:00) Coliform F (1:00) Not: F where 10.00	PIA TE, NO	Time	Grab D	xir.	Count 1	Volume (Size in L) -0.12 0.15 V WMg	Type (+)	ative(s)* 1, 5	Cooler ID Lt LT ? CLt	pH Check	SUB	WORK ORDEF Sample Sample	see below
(record field data for each sample in space below the sample in space	Star w) Date /-5-2// Total (/-5-2// 0 * \$04, No /-5-2//	Time (11:00) Coliform F (11:00) Not. F wydne (10.00)	Date 1	Time	Grab D	xir.	Count 1	Volume (Size in L) -0.12 0.15 VVVQ	Type (+)	ative(s)* 1, 5	Cooler ID Ut CIT? CIT	pH Check	SUB I SUB	WORK ORDEF Sample Sample	see below
(record field data for each sample in space below the sample in space	Star w) Date /-5-2// Total (/-5-2// 0 * \$04, No /-5-2//	Time (11:00) Coliform F (11:00) Not. F wydne (10.00)	Date 1	Time	Grab D	xir.	Count 1	Volume (Size in L) -0.12 0.15 VVVQ	Type (+)	ative(s)* 1, 5	Cooler ID Ut CIT? CIT	pH Check	SUB I SUB	WORK ORDEF Sample Sample	see below
(record field data for each sample in space below the sample in space	Star w) Date /-5-2// Total (/-5-2// 0 * \$04, No /-5-2//	Time (11:00) Coliform F (11:00) Not. F wydne (10.00)	Date 1	Time	Grab D	xir.	Count 1	Volume (Size in L) -0.12 0.15 VVVQ	Type (+)	ative(s)* 1, 5	Cooler ID Ut CIT? CIT	pH Check	SUB I SUB	WORK ORDEF Sample Sample Sample	see below

Well numbers correspond to Attachment I

sample wil need to be collected and analyzed for the follo The water quality from each well will need to be assessed y Aquifer to provide adequate drinking water. Upon cor

-) promoted
- Nitrate (as nitrogen)
- Manganese
- Acres of the Control - SON CONTRACTOR CONTRAC
- Salved Solved So
- Presence/absence of total coliform bacteria

have any questions please feet free to call me at 512-773-.

Page 1 of 1

3



AQU1-G

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

TABLE OF CONTENTS

This report consists of this Table of Contents and the following pages:

Report Name	<u>Description</u>	<u>Pages</u>
949481_r03_03_ProjectResults	Ana-Lab Project P:949481 C:AQU1 Project Results t:304	1
949481_r03_06_I_ProjectTRRP	Ana-Lab Project P:949481 C:AQU1 Project TRRP Results Report for Class I	2
949481_r10_05_ProjectQC	Ana-Lab Project P:949481 C:AQU1 Project Quality Control Groups	1
949481_r99_09_CoC1_of_1	Ana-Lab CoC AQU1 949481_1_of_1	2
	Total Pages:	6



Report Page 1 of 7

ANA LAB Testing the Limits of Science and Service

Page 1 of 1

Project

949481

01/07/2021

Printed:

AQU1-G

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

Results

				Sample	Results					
	1952112	E001057-01						Received:	01/06	5/2021
Di	rinking Water		Collected by: Client Taken: 01/05/2021	•	ch Laboratori 0:00:00		PO:			
E	PA 300.0 2.1		Prepared	: 932770	01/06/2021	16:03:00	Analyzed 932770	01/06/2021	16:03:00	ATN
	Parameter		Results	Un	its RL		Flags	CAS		Bottle
NELAC	Chloride		43.6	mg	/L 3.00					01
E	PA 300.0 2.1		Prepared	: 932770	01/06/2021	18:32:00	Analyzed 932770	01/06/2021	18:32:00	ATN
	Parameter		Results	Un	its RL		Flags	CAS		Bottle
NELAC	Sulfate		2010	mg	/L 10.0					01

Qualifiers:

We report results on an As Received or wet basis unless marked Dry Weight. Unless otherwise noted, testing was performed at Ana-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No LA026, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-068-0. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation.

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.

Trey Peery, MA, Project Manager

U



Report Page 2 of 7

RESULTS



Page 1 of 2

Project 949481

01/07/2021 Printed

DW

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

AQU1

<u>CAS</u> Parame		Results	MDL	SDL	MQL	MQLAdj	Flag	Units	Target	Bottle	Dilute
Drinking Water		Ion Chromatography							EPA	300.0 2.1	
1952112 E001057	-01										
		Collection:	01/05/2	021	10:00:00	Client			Received:	01/06/2021	l
Prepared:	932770										
				Analyzed:		932770	1/6/	/21	16:03:00		
Chlorid	e	43.6	0.0385	0.385	0.300	3.00		mg/L	250 Secondary Standard	01	10.00
Sulfate		2010	0.0871	8.71	0.100	10.0		mg/L	250 Secondary Standard	01	100.00

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-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No. 2018-126, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-o68-o. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation. 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.



NELAP-accredited #T104704201-20-17

RESULTS

AQU1

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

Trey Peery, MA, Project Manager



Page 2 of 2

Project
949481

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DW

TNI

Quality Control



Page 1 of 1

Project 949481

Tage 1 of

Printed 01/07/2021

AQU1-G

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

Analytical Set	932770									EPA:	300.0 2.1
				В	llank						
<u>Parameter</u>	PrepSet	Reading	MDL	MQL	Units			File			
Chloride	932770	0.043	0.0385	0.300	mg/L			121920307			
Sulfate	932770	0.092	0.0871	0.100	mg/L			121920307			
				•	ccv						
<u>Parameter</u>		Reading	Known	Units	Recover%	Limits%		File			
Chloride		9.97	10.0	mg/L	99.7	90.0 - 110		121920305			
Chloride		10.0	10.0	mg/L	100	90.0 - 110		121920313			
Chloride		9.85	10.0	mg/L	98.5	90.0 - 110		121920323			
Chloride		9.96	10.0	mg/L	99.6	90.0 - 110		121920334			
Sulfate		9.90	10.0	mg/L	99.0	90.0 - 110		121920305			
Sulfate		9.92	10.0	mg/L	99.2	90.0 - 110		121920313			
Sulfate		9.79	10.0	mg/L	97.9	90.0 - 110		121920323			
Sulfate		9.76	10.0	mg/L	97.6	90.0 - 110		121920334			
				LC	S Dup						
<u>Parameter</u>	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	932770	4.72	4.73		5.00	85.0 - 110	94.4	94.6	mg/L	0.212	20.0
Sulfate	932770	4.86	4.89		5.00	88.0 - 110	97.2	97.8	mg/L	0.615	20.0
					MS						
Parameter Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	1951388	201		135	50.0	80.0 - 120	132 *		mg/L		20.0
Chloride	1951388	196		135	50.0	80.0 - 120	122 *		mg/L		20.0
Sulfate	1951388	148		86.0	50.0	80.0 - 120	124 *		mg/L		20.0
Sulfate	1951388	144		86.0	50.0	80.0 - 120	116		mg/L		20.0
				r	MSD						
<u>Parameter</u>	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	1951863	38.2	37.7	28.2	10.0	80.0 - 120	100	95.0	mg/L	5.13	20.0
Sulfate	1951863	41.1	40.7	31.3	10.0	80.0 - 120	98.0	94.0	mg/L	4.17	20.0

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

 ${\sf Blank-Method\,Blank;\,CCV-Continuing\,Calibration\,Verification;\,MS-Matrix\,Spike}$



Report Page 5 of 7

CONTAINERS SUPPLIED:

) E001057-01 [E] - [SUB] ANA CI SO4 0.25LP

[Split from -01 A]

Analysis Request for. Chloride - EPA 300.0

Sample ID: E001057-01

Sampled: 01/05/21 10:00

SO4 DW - EPA 300.0

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



Chain-of-Custody & Analysis Request

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) 301-9559 Fax (512) 301-9552

SHIPPED TO:

Kilgore, TX 75662

Ana-Lab Corp. (NELAP Cert. T104704201) 2600 Dudley Road

Phone: (903) 984-0551 Fax: (903) 984-5914

733 - E001057

C-O-C #

T104704371

port Page 6 of 7

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 1 of 1

Tracking # and Temp See Attached for

Relinquished by: (print & sign)

X ATL-Austin

ATL-Bryan

Sampler (,

1/5/21 Date

\$

Not Chilled

Custody Sealed

Abbreviations: Dw - Drinking Water

NP - Non-Potable Water

1777

eceived by: (print & sign) Lone Star

Received in Lab

Cooler 1:

AQU1 - Z1000QS&C

W W Way

10,00

Sample info

Aqua-Tech Comments and Special Instructions

CTU - Custody Transfer Unbroken

LG - Liter Glass StP - Sterile Plasti

Received load "X" all that apply

5 DAY TAT

Line below documents conditions and (IR) | Corrected Temp. (CT) | Thermometer ID

reporting@aqua-techlabs.com Please return cooler(s) to:

Austin Facility

BRET

Please email reports to:

O410 Condition Good

Cooler 1 NA

N/A

 \mathbb{X}

2

949481 CoC Print Group 001 of 001

12/29/2020

https://www2.lso.com/weblabels/?labelsize=0&combinedlabel=1&sessionkey=%7B62C4FBAD-29AF-4846-9140-211D28BDC8F7%7D





LSO 1-800-800-8984 www.lso.com

SHIP TO: RECEIVING ANA LAB CORP 2600 DUDLEY RD KILGORE, TX 75662 9039840551 From: CHRISTIE TONNU AQUA TECH LABS 3512 MONTOPOLIS DR AUSTIN, TX 78744 5123019559



LSO ECONOMY NEXT DAY

3:00 IN MOST AREAS LATER IN REMOTE AREAS

PRINT DATE: 12/29/2020 REF 3: QUICKCODE: WEIGHT: 20.00LBS REF 1: 1D00V.0000 REF 2:

Therm#: 6443 Corr Fact: 0.0 C

Fold on above line and place shipping label in pouch on package. Please be sure the barcodes and addresses can be read and scanned. Shipping Instructions

- 1. Fold this page along the horizontal line above.
- 2. Place this Airbill in the shipping label pouch on the package you are shipping. Please be sure the barcodes and addresses can be read and scanned.
- 3. To locate a drop box near you, click on Find A Drop Box from the home page main menu.
- 4. To schedule a pickup, click on Request Pickup.

WARNING: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your Lone Star Overnight account number.

This label is valid for use for 3 months from the date printed. Use of expired labels may result in delayed billing and / or additional research charges. LIMIT

OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES OR RESIDENTIAL DELIVERIES.

Report Page 7 of 7

Water Quality

Ex. Well No. 1

Email information for report date: 12/30/20 15:46

D041251

Apex Drilling

Attn: Michael Becker apexdrilling.becker@yahoo.com

PO Box 867 Marble Falls, TX 78654

****Attention Austin Laboratory Clients****
Aqua-Tech is excited to announce that our
Austin Laboratory is expanding and moving to a
new location!

We will close our current Austin Laboratory location on Friday, October 23, 2020 at 12:00 p.m. to begin the moving process and will re-open at our new location on Monday, October 26 at 8:00 a.m.

Austin Laboratory address as of October 26, 2020: 3512 Montopolis Drive Austin, TX 78744

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

CORPORATE OFFICE

635 Phil Gramm Boulevard Bryan, TX 77807

Phone: (979) 778-3707 Fax: (979) 778-3193



AUSTIN OFFICE

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

TCEQ DW Lab ID TX 239

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 required by the State of Texas.

DWP Accreditation 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.

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

June M. Brien

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@aqua-techlabs.com

www.agua-techlabs.com

Page 1 of 4 D041251_1 ATL 110720 FIN_ls 12 30 20 1546

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Fax: (512) 301-9552

Analytical Report

Apex Drilling

Report Printed:

12/30/20

D041251

LEGACY HILLS NOEX1			12/28/20 12:30 by CLI 12/28/20 14:00 by Chr			<i>Type</i> Grab		<i>Matrix</i> Drinki	ng Water	C-O-C # 41249-52	
Lab ID# D041251-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
Microbiological Analyses											
Total Coliforms	Present	N/A		N/A	N/A	N/A	Austin	12/28/20 16:52 KT	SM9223 B 2004	M122959	NEL
Escherichia coli (E.coli)	Absent	N/A		N/A	N/A	N/A	Austin	12/28/20 16:52 KT	SM9223 B 2004	M122959	NEL

	Microbiological Analyses - Quality Control Log10 Comparison													
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Range	Control Limit	Batch	
Escherichia coli	(E.coli) - SM9	223 B 2004												Austin
Blank	Absent	N/A		N/A	N/A	12/28/20 16:52 KT							M122959	
Total Coliforms -	SM9223 B 20	04												Austin
Blank	Absent	N/A		N/A	N/A	12/28/20 16:52 KT							M122959	

		Sample Prepar	ation Sumi	mary					External Dilution	
Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	Factor	Batch
D041251-01										
Escherichia coli (E.coli) Total Coliforms	SM9223 B 2004 SM9223 B 2004	12/28/20 16:46 KT 12/28/20 16:46 KT	Austin Austin	A A	100 100	mL mL	100 100	mL mL	1 1	M122959 M122959

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AQUA-TECH LABORATORIES INC.	haiı	n-of-Custo	ody ar	ıd Analys	is Re	quest		A Jan ACC	*Ea _{lly}	•		Labora	tories, l	nc.		Vork Order / C-O	·C
Client /Dveiset									40		u stin ontopolis Dr.		Bryan 335 Phil Gramn	a Dlud	4	1249-	-54
Client /Project:	<u> </u>	7.7		DW - Drinking Wat	ter	(+) Contair	ar Type	""BOW	STOR.	Austin	TX 78744	,	Bryan, TX 77	807	D	2-F-Malan	2
6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		6		NP - Non-Potable S - Solid		P - Plastic G - Glass		T1047	Т.		301.9559	litation/certific	979.778.37		Pag	***************************************	
Z Address			itio	CM - Custody Mai	intained	T - Teflon	•	TX	239	at results in		ited otherwis		- CITIO GITI		V-0023 R03	
Address City State		ZIP	e E	CTU - Custody Tra CT - Corrected T	insfer Unbro	ken					Sa	ımple Cı	ustody				
O Phone / Email				SUB - Subcontract				Relinquished	MAIR	File	er.l		Samp Clien		12.25	5-20 🗆 Ice	d / Refrig
By relinquishing the san Samples will be analyzed by a method that is within Aqua-Te						fied method that is no	ot within Agua-	by (print & sign)	1 (-	EC16	-/		ATL	111	ne 14	OO □ Cust	ody ed
Tech's fields of accreditation will be subcontracted to a NEL analytes not requiring accreditation will be analyzed by a co-	AC certi	ified lab that is certifie	ed for that me	thod. Clients will be	e notified of	the subcontract lab's	details. Other	Received by					Clien	t Da	ate	lced	/ Refrig
column. The client approves all method modifications docur	nented b		subcontract la	b. A current list of				(print & sign)					ATL	Field Ti	ne	см.	сти
Client Comments:	Otive	* Preservativ	<u>-</u>	31.	Recei	pt in Lab	~	Relinquished					Clier	nt i	ate	lced	/ Refrig
	1	< 6 °C (unfro	ozen)	Cool	ler ID :	cot	.57	by (print & sign)					Clier	Field Ti	me	См	сти
	2	H2SO4 1764	386	Temperature	(°C) . 9	.3/	R	Received by				10	Clier	nt D:	ate	ced	/ Refrig
	3 1				ad / CT	9.3	5	(print & sign)					ATL	Field Ti	me	СМ	/CTU
	4 !	HN03 0753	274	Preservation Co	orrect?	YES NO	ES NO	Relinquished					Clier	nt D	ate	lced	
	5	Na2S2O3	450	P ost Preserva	tives ?	(YES) NO	YES NO	by (print_&eign)	Λ				ATL	Field Ti	me	☐ CM seal	/CTU/ ed
	6	NaOH		Thermome		764481	7	Received by	afon					D	12/2	6/20 Por	d Good
	7			рН Рар	per ID :	75598]	(print & sign)	chi	chi	e Toi	NNV	Lab		n°407		I / Refrig / CTU
	La	ab.															
	Comm																
Field Sample ID		Start		End	d	Composite	Sample		Contair	er(s)		LAB	USE ONL	Y BE	LOW (ini	ials CTT)
(record field data for each sample in space below	w)	Date	Time	Date	Time		Matrix	Bottle Count	Volume (Size in L	Type (+)	Preserv- ative(s) *	Cooler ID	pH Check	SUB	WORK ORDER	seebe	LOW
Legacy 11/1 #5		12-28-6	1/2:00	· marine in the second		1 0	0W	1	0.15	StP	1,5	clt	L-edited (State)	Continuing	Sample		
Analysis Requested & R. + P/	4	1											004	24	9-0	A	
Requested & Comments:																	ONTOACHANIA
10000 H.115 45		12+38-201	12.4	· September of the second seco	MANAGARITAN P	G	PW		2	P	(Ut	**********	ANA	Sample		
Analysis Analysis	<u>,</u> 0	II. con	d, F,	Fe, NO	2/3/	MN, p	H,						D04	125	0-02	iΑ	
Analysis Requested & Sec AMOCHED Comments:	° S	11, con a	vdvi	els, TD	5	*											
LEGACY HILE + CX	1	12.28.20	1213	1		G	DW		0.15	stp	1,5	elt	nder (entre entre en	ALLEGA MARIANTA	Sample		
Analysis		/											000	+12	51-0	1A	
Requested & Comments: BOLT M/O																	- Income
									1			<u> </u>					
Lesosy Hills HEXI		12-25-30	/12:i3	*Managerial States College Col	уудматого	LG	PW	1 Table	2	P	· inte	clt	ı	ANA	Sample		
Les Os by Hills HEX	e e e e e e e e e e e e e e e e e e e	12-28-20, C1, cond	//213 1, F, F	e, Nu	213,	I G Mn, pt	1,	**************************************	2	P	- Laure	dt	ı	1 1	Sample 5 7 - 0	1 A	
Analysis Requested & Comments: SCC ATTACHER	00	12-25-20, C1, conf S04, Na	//2:3 1, F, F	e, No.	213,	Mnipt	1.	· village	2	P	· Line	<u>ut</u>	ı	1 1		l A	
Requested &	0	12-28-20 C1, cond S04, na	//213 1, F, F	e, Notes, To	213, 05	Mn, pt	1 P W	1 200	2	P	-	tlo	ı	1 1	57-0		
Analysis Requested & Comments: Sec ATTACHEA Analysis	9 0	12-28-30 C1, cond 804, ha	//213 1, F, F	e, NO:	213, 05	Mnipt	PW		2	P		clt	ı	1 1	57-0	1 <i>A</i>	

. Well numbers correspond to Attachment L

y Aquifer to provide adequate drinking water. Upon cor The water quaity from each well will need to be assessed sample wil need to be collected and analyzed for the follo

- Transported to the second of t
- Nitrate (as nitrogen)
- Manganese
- jacobani jacobani

- \$2000
- Ota Dissoved Solids (DS)
- Presence/absence of total coliform bacteria

have any questions please feet free to call me at 512-773-.

Email information for report date: 1/19/21 17:19

D041252

Apex Drilling

Attn: Michael Becker apexdrilling.becker@yahoo.com

PO Box 867 Marble Falls, TX 78654

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Page 1 of 14 D041252_1 ATL 110720 FIN_ls 01 19 21 1719

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Analytical Report

Apex Drilling

Report Printed:

1/19/21

D041252

17:19

Legacy Hills #Ex1			2/28/20 12:30 by CLIEN 2/28/20 14:00 by Christic			<i>Type</i> Grab		<i>Matrix</i> Drinkir		O-C # 249-52	
Lab ID# D041252-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
Total Dissolved Solids	3060	mg/L		25.0	100	100	Bryan	12/29/20 19:35 MRH	SM2540 C 2011	M123012	NEL
Nitrate as N (NO3N)	<0.0200	mg/L			0.0200	0.0200	Calc	12/30/20 11:19 KT	SM4500-NO3-F 2011	[CALC]	NEL
Nitrite as N	<0.01	mg/L	J (0.003)	0.002	0.002	0.01	Austin	12/29/20 13:50 KT	SM4500 NO2- B 2011	M123010	NEL
Nitrate/Nitrite as N	0.02	mg/L		0.02	0.02	0.02	Bryan	12/30/20 11:19 EMT	SM4500-NO3-F 2011	M123061	ANR
Total Hardness (EDTA) as CaCO3	2090	mg/L		1.00	10.0	10.0	Bryan	01/04/21 18:30 MRH	SM2340 C 2011	M123189	NEL
Fluoride	1.99	mg/L		0.04	0.04	0.10	Bryan	01/19/21 08:08 MRH	SM4500-F C 2011	M123793	NEL
pH, Lab	7.5	S.U.	Hold-03		N/A	N/A	Austin	12/31/20 12:33 KT	SM4500-H+ B 2011	M123136	DWP
Temperature @ pH Analysis	19.4	Deg. C			N/A	N/A	Austin	12/31/20 12:33 KT	SM4500-H+ B 2011	M123136	DWP
Specific Conductance (adjusted to 25.0°C)	3990	uS/cm		2.00	6.67	6.67	Bryan	01/05/21 14:30 CJO	SM2510 B 2011	M123226	DWP,NEL
Metals (Total)											
Iron	0.300	mg/L		0.002	0.002	0.010	Bryan	01/07/21 17:24 PNS	EPA 200.7 R4.4	M123187	NEL
Manganese	0.006	mg/L		0.002	0.002	0.005	Bryan	01/07/21 17:24 PNS	EPA 200.7 R4.4	M123187	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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Apex Drilling

Report Printed:

1/19/21 17:19

D041252

				G	eneral (Chemistry - Quality Co	ontrol							
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Fluoride - SM4500	-F C 2011													Bryar
Initial Cal Check	0.42	mg/L				01/19/21 08:08 MRH	0.428		97.4	90 - 110			2101170	
Low Cal Check	0.10	mg/L				01/19/21 08:08 MRH	0.0999		98.9	70 - 130			2101170	
Blank	<0.10	mg/L		0.04	0.10	01/19/21 08:08 MRH							M123793	
LCS	0.77	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799		96.6	90 - 110			M123793	
LCS Dup	0.79	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799		98.5	90 - 110	1.92	6.23	M123793	
Matrix Spike	2.85	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799	1.99	108	78.1 - 125			M123793	
Matrix Spike Dup	2.87	mg/L		0.04	0.10	01/19/21 08:08 MRH	0.799	1.99	110	78.1 - 125	2.30	5.72	M123793	
Nitrate/Nitrite as N	- SM4500-N	NO3-F 2011												Brya
Initial Cal Check	1.37	mg/L				12/30/20 11:19 EMT	1.40		98.2	90 - 110			2012322	
Low Cal Check	0.02	mg/L				12/30/20 11:19 EMT	0.0200		120	70 - 130			2012322	
Blank	<0.02	mg/L		0.02	0.02	12/30/20 11:19 EMT							M123061	
LCS	0.50	mg/L		0.02	0.02	12/30/20 11:19 EMT	0.500		99.2	91.3 - 109			M123061	
LCS Dup	0.50	mg/L		0.02	0.02	12/30/20 11:19 EMT	0.500		101	91.3 - 109	1.70	6.8	M123061	
Matrix Spike	0.52	mg/L		0.02	0.02	12/30/20 11:19 EMT	0.500	0.02	99.0	94.7 - 117			M123061	
Matrix Spike Dup	0.52	mg/L		0.02	0.02	12/30/20 11:19 EMT	0.500	0.02	99.7	94.7 - 117	0.700	8.65	M123061	
MRL Check	0.02	mg/L		0.02	0.02	12/30/20 11:19 EMT	0.0200		120	70 - 130			M123061	
Nitrite as N - SM45	00 NO2- B	2011												Austi
Blank	<0.01	mg/L		0.002	0.01	12/29/20 13:50 KT							M123010	
LCS	0.08	mg/L		0.002	0.01	12/29/20 13:50 KT	0.0800		103	90 - 110			M123010	
LCS Dup	0.08	mg/L		0.002	0.01	12/29/20 13:50 KT	0.0800		103	90 - 110	0.00	8.12	M123010	
Matrix Spike	0.08	mg/L		0.002	0.01	12/29/20 13:50 KT	0.0800	< 0.01	97.1	70.6 - 117			M123010	
Matrix Spike Dup	0.08	mg/L		0.002	0.01	12/29/20 13:50 KT	0.0800	<0.01	102	70.6 - 117	4.86	8.18	M123010	
MRL Check	0.01	mg/L		0.002	0.01	12/29/20 13:50 KT	0.0100		101	70 - 130			M123010	
рН, Lab - SM4500-	H+ B 2011													Aust
Duplicate	7.6	Std Units				12/31/20 12:33 KT		7.5			0.398	1.18	M123136	
Reference	6.9	Std Units				12/31/20 12:33 KT	6.86		100	95 - 105			M123136	
Reference	9.2	Std Units				12/31/20 12:33 KT	9.18		99.9	95 - 105			M123136	
Reference	6.9	Std Units				12/31/20 12:33 KT	6.86		101	95 - 105			M123136	
Reference	9.2	Std Units				12/31/20 12:33 KT	9.18		99.9	95 - 105			M123136	

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Apex Drilling

Report Printed:

1/19/21 17:19

D041252

				G	seneral C	Chemistry - Quality Co								
	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Specific Conducta	ance (adjuste	ed to 25.0°C) -	SM2510 B 2011											Brya
Initial Cal Check	513	uS/cm				01/05/21 14:30 CJO	484		106	90 - 110			2101024	
Blank	<2.00	uS/cm		2.00	2.00	01/05/21 14:30 CJO							M123226	
Duplicate	3950	uS/cm		6.67	6.67	01/05/21 14:30 CJO		3990			0.924	2	M123226	
LCS	1460	uS/cm		2.00	2.00	01/05/21 14:30 CJO	1410		104	90 - 110			M123226	
Total Dissolved S	olids - SM25	40 C 2011												Bry
Blank	<25.0	mg/L		25.0	25.0	12/29/20 19:35 MRH							M123012	
Duplicate	312	mg/L		100	100	12/29/20 19:35 MRH		308			1.29	9.13	M123012	
Reference	440	mg/L		100	100	12/29/20 19:35 MRH	500		88.0	81 - 121			M123012	
Total Hardness (E	DTA) as CaC	O3 - SM2340 C	2011											Bry
Initial Cal Check	53.5	mg/L				01/04/21 18:30 MRH	54.4		98.4	85 - 115			2101013	
Blank	<1.00	mg/L		1.00	1.00	01/04/21 18:30 MRH							M123189	
Duplicate	11.1	mg/L		1.00	1.00	01/04/21 18:30 MRH		11.1			0.00	9.52	M123189	
LCS	102	mg/L		1.00	1.00	01/04/21 18:30 MRH	100		102	90 - 110			M123189	
LCS Dup	100	mg/L		1.00	1.00	01/04/21 18:30 MRH	100		100	90 - 110	2.00	6.47	M123189	
Matrix Spike	110	mg/L		1.00	1.00	01/04/21 18:30 MRH	100	11.1	99.0	87.6 - 111			M123189	
MRL Check	4.04	mg/L		1.00	1.00	01/04/21 18:30 MRH	4.00		101	70 - 130			M123189	
					Metals	(Total) - Quality Cont	rol							
	D It	11-4-	Netes	MDI			Spike	Source	0/ D	0/ D. Limite	DDD	RPD	Datab	
	Result	Units	Notes	MDL	SQL	Analyzed	Amount	Result	%R	%R Limits	RPD	Limit	Batch	
Iron - EPA 200.7 R	4.4													Bry
Blank	<0.010	mg/L		0.002	0.010	01/07/21 16:36 PNS							M123187	
LCS	0.946	mg/L		0.002	0.010	01/07/21 16:39 PNS	1.00		94.6	84.5 - 115.4			M123187	
LCS Dup	0.955	mg/L		0.002	0.010	01/07/21 16:42 PNS	1.00		95.5	84.5 - 115.4	1.04	20	M123187	
Duplicate	<0.010	mg/L	J (0.008)	0.002	0.010	01/07/21 16:46 PNS		<0.010			2.56	20	M123187	
Matrix Spike	0.968	mg/L		0.002	0.010	01/07/21 16:49 PNS	1.00	0.008	96.0	69.5 - 130.4			M123187	
Manganese - EPA	200.7 R4.4													Bry
Blank	<0.005	mg/L		0.002	0.005	01/07/21 16:36 PNS							M123187	
LCS	1.01	mg/L		0.002	0.005	01/07/21 16:39 PNS	1.00		101	84.5 - 115.4			M123187	
LCS Dup	1.02	mg/L		0.002	0.005	01/07/21 16:42 PNS	1.00		102	84.5 - 115.4	1.20	20	M123187	
Duplicate	0.016	mg/L		0.002	0.005	01/07/21 16:46 PNS		0.015			5.70	20	M123187	
	1.04	mg/L		0.002	0.005	01/07/21 16:49 PNS	1.00	0.015	102	69.5 - 130.4			M123187	

CORPORATE OFFICE

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



AUSTIN OFFICE

Fax: (512) 301-9552

3512 Montopolis Dr. Suite A Austin, TX 78744 Phone: (512) 301-9559 **Analytical Report**

Apex Drilling

Report Printed:

1/19/21 17:19

D041252

Preparation Procedures - Quality Control

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

Turbidity - SM2130 B 2011

Bryan

		Sample Prepa	aration Sumi	mary					External Dilution	
Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	Factor	Batch
D041252-01										
Fluoride	SM4500-F C 2011	1/19/21 8:08 MRH	Bryan	С	25.0	mL	25.0	mL	1	M123793
Iron	EPA 200.7 R4.4	1/7/21 12:30 BLC	Bryan	В	10.0	mL	10.2	mL	1	M123187
Manganese	EPA 200.7 R4.4	1/7/21 12:30 BLC	Bryan	В	10.0	mL	10.2	mL	1	M123187
Nitrate/Nitrite as N	SM4500-NO3-F 2011	12/30/20 9:21 EMT	Bryan	D	10.0	mL	10.0	mL	1	M123061
Nitrite as N	SM4500 NO2- B 2011	12/29/20 13:50 KT	Austin	Α	25.0	mL	25.0	mL	1	M123010
pH, Lab	SM4500-H+ B 2011	12/31/20 12:33 KT	Austin	Α	50.0	mL	50.0	mL	1	M123136
Sample Acidified to pH<2 in Lab	N/A	12/28/20 15:00 CTT	Bryan	D	1.00	mL	1.00	mL	1	M122954
Specific Conductance (adjusted to 25.0	°C) SM2510 B 2011	1/5/21 14:30 CJO	Bryan	С	15.0	mL	50.0	mL	1	M123226
Temperature @ pH Analysis	SM4500-H+ B 2011	12/31/20 12:33 KT	Austin	Α	50.0	mL	50.0	mL	1	M123136
Total Dissolved Solids	SM2540 C 2011	12/29/20 19:35 MRH	Bryan	С	25.0	mL	100	mL	1	M123012
Total Hardness (EDTA) as CaCO3	SM2340 C 2011	1/4/21 18:30 MRH	Bryan	В	5.00	mL	50.0	mL	1	M123189
Turbidity	SM2130 B 2011	1/4/21 13:30 BLC	Bryan	В	10.0	mL	10.0	mL	1	M123183
D041252-01RE1										
Sample Acidified to pH<2 in Lab	N/A	12/28/20 15:00 CTT	Bryan	В	100	mL	100	mL	1	M122936

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			1997	-						ustin		Bryan		141	240	1-57
Client /Project:					***************************************		**************************************	#TOR*		ontopolis Dr. , TX 78744	•	635 Phil Gramm I Bryan, TX 778			•	~
· Name AREI DRILL	NE		DW - Drinking Water NP - Non-Potable Wat	er	(+) Conta P - Plasti		T1047	04371		301.9559		979.778.370	7	Pag	e (of L
Address City State		Definitions	S - Solid		G - Glass T - Teflor	5	TX	239 T	est results n		ditation/certifi ated otherwis	cation requireme e.	nts unles	SS	V-0023 R	:03
og City State	ZIP	Ę	CM - Custody Maintair CTU - Custody Transfe								ample C				***************************************	
		ă	CT - Corrected Temp SUB - Subcontracted A	erature			Relinquished	1.	A .			Sample	r Date	17.78	s -20 🗆	Iced / Refrig
Email By relinquishing the sai	mples listed below to Aqu	a-Tech, the clier	nt agrees to the following				by (print & sign)	14/1	FIF	=c/(Client	Time	9 3 7 7 .	_	Custody
Samples will be analyzed by a method that is within Aqua-T Tech's fields of accreditation will be subcontracted to a NEI	ech Laboratories' NELAC	fields of accred	litation. Analytes requiring	a certifie			(print d sign)			ŧ .		ATL Fi	eld Date	17,0	- Contraction of the Contraction	Sealed
analytes not requiring accreditation will be analyzed by a co	mpendial method. If a sp	ecific method is	required, the client will no	te the me	ethod in the "Analy	sis Requested"	Received by					Client	Ti	_		Iced / Refrig
column. The client approves all method modifications docu	mented by Aqua-Tech or other methods are a			a-recns	NELAC fields of a	ccreditation and	(print & sign)					ATLF	eld Time	e		CM/CTU
Client Comments:	* Preserva	tives	Diese et al.	Receip	t in Lab	1	Relinquished					Client	Date	9		Iced / Refrig
	1 < 6 °C (u	nfrozen)	Cooler II	0: (~D+	.57	by (print & sign)					Client	eld Tim	O.]см/сти
	2 H2SO4 (7)	4386	Temperature (°C	9	3/	R/		······································			10	Client	Date	e		Iced / Refrig
	3 HCI	. 1 0 0 0	read /	7.	9.3	5/	Received by (print & sign)					☐ ATLF	Time	e]см/сти
Management of the Control of the Con			Preservation Correct		YES (NO)	YES NO						Client	Date	e		Iced / Refrig
ed account	4 HNO3 075					/	Relinquished by					-	Tim	e	-	•
	5 Na2S2O3	7650	Post Preservative	5?	res no /	YES NO	(print_&eign)	()				ATLF				CM / CTU / sealed
	6 NaOH		Thermometer I	D: 0-	16448	00	Received by	gm				,			6/20	Cond Good
as records	7		pH Paper I	D: 0 -	15598		(print & sign)	chn	STI	e To	NNV	1 🗹 Lab	Tim	400) [Т м/сти
	Lab						A BANGALON AND AND AND AND AND AND AND AND AND AN									
a and a second	Comments															
Field Sample ID	St	art	End		Composit	e Sample		Contai	ner(s)		LAB	USE ONLY	BEL	OW (initi	ials 🧷	T)
(record field data for each sample in space belo	w) Date	Time	Date	Time	Туре	Matrix	Bottle Count	Volume (Size in I	1 .,,,,,	Preserv- ative(s) *	Cooler ID	pH Check		WORK ORDER	seek	pelor
Legacy 11/1/45	12.28:	6/17:0	· was in the second control of the second co	nd=000	0	0W	Chestally.	0.15	stf	1,5	elt	_manner00000m	-	Sample		
Analysis Requested & Roy of P/	<u></u>	7										004	240	7-0	A	
Requested & Comments:	7 1												\neg	f		
105 ASV HILLS 45	12-128-1	0/12:4		Side and a second control of the second cont	6	OW		2	P		OLT	A	FNA	Sample		
	- (1. (0)	ON F	FP. NO2	12.	MN.	0 H.						D041	75	D-1	IA	
Analysis Requested & See ATTOCHED Comments:	504, h	avdn	Fe, NOZ els, TDS	,		,									1/1	
LEGALY Hills # CX	1 12.28.2			enerti	G	DN		0.15	str	1,5	elt	This contraction is a second s		Sample		
Analysis Requested 9		1										004	12	51-0	IA	agency
Requested & Comments: 3011 //)																
CCSOSCY HILS HEX Analysis Requested & Comments: SCC AT 14(HC)	1 12.29	0/1213	30	ic)	(G	PW	i	2	P	ma	clt	1 1	NA	Sample		
Analysis	, cl.cov	id, Fi	Fe, NUZ1	3,1	Mnipi	7,						004	125	2-0	1A	Access and the second s
Requested & SCC ATTACHE.	7 . 804, N	aidv	les, TOS													
		WANTED TO THE TOTAL PROPERTY OF THE TOTAL PR												Sample		
			<u> </u>								1			NFE	20 t	17
Analysis Requested α					***************************************					 						

y Aquifer to provide adequate drinking water. Upon cor The water quaity from each well will need to be assessed sample wil need to be collected and analyzed for the follo

- 2550

- Consoli Carlo Security Security
- Nitrate (as nitrogen)
- Zangalese

- Ota Dissoved Solids (DS)
- Presence/absence of total coliform bacteria

have any questions please feet free to call me at 512-773-.

Page 1 of 1

3



AQU1-G

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

TABLE OF CONTENTS

This report consists of this Table of Contents and the following pages:

Report Name	<u>Description</u>	<u>Pages</u>
948695_r03_03_ProjectResults	Ana-Lab Project P:948695 C:AQU1 Project Results t:304	1
948695_r03_06_I_ProjectTRRP	Ana-Lab Project P:948695 C:AQU1 Project TRRP Results Report for Class I	2
948695_r10_05_ProjectQC	Ana-Lab Project P:948695 C:AQU1 Project Quality Control Groups	1
948695_r99_09_CoC1_of_1	Ana-Lab CoC AQU1 948695_1_of_1	2
	Total Pages:	6



Report Page 1 of 7

Testing the Limits of Science and Service

Page 1 of 1



Printed: 12/31/2020

AQU1-G

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

Results

				Sample	Results					
	1950356	D041252-01						Received:	12/29	9/2020
Di	rinking Water		Collected by: Client Taken: 12/28/2020		ch Laboratori 2:30:00		PO:			
E	PA 300.0 2.1		Prepared	: 931895	12/29/2020	15:53:00	Analyzed 931895	12/29/2020	15:53:00	ATN
	Parameter		Results	Un	its RL		Flags	CAS		Bottle
NELAC	Chloride		48.0	mg	/L 3.00					01
E	PA 300.0 2.1		Prepared	932053	12/30/2020	19:28:00	Analyzed 932053	12/30/2020	19:28:00	ATN
,	Parameter		Results	Un	its RL		Flags	CAS		Bottle
NELAC	Sulfate		1630	mg	/L 10.0					01

Qualifiers

We report results on an As Received or wet basis unless marked Dry Weight. Unless otherwise noted, testing was performed at Ana-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No LAo26, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-068-0. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation.

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.

Gulf Coast Region: 4141 Director

Trey Peery, MA, Project Manager

U



Report Page 2 of 7

RESULTS

Page 1 of 2

948695

12/31/2020 Printed

DW

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

AQU1

<u>CAS</u> Paran	neter	Results	MDL	SDL	MQL	MQLAdj	Flag	Units	Target	Bottle	Dilute
Drinking Water		Ion Chromatography							EPA	300.0 2.1	
1950356 D04125	2-01										
		Collection:	12/28/20)20	12:30:00	Client			Received:	12/29/2020)
Prepared:	931895										
				Analyzed:		931895	12	2/29/20	15:53:00		
Chlor	ide	48.0	0.0211	0.211	0.300	3.00		mg/L	250 Secondary Standard	01	10.00
Prepared:	932053										
				Analyzed:		932053	12	2/30/20	19:28:00		
Sulfa	te	1630	0.0871	8.71	0.100	10.0		mg/L	250 Secondary Standard	01	100.00

MDL is Method Detection Limit (40 CFR 136 Appendix B) MQL is the Method Quantitation Limit and corresponds to a low standard 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)



RESULTS



Page 2 of 2



Printed 12/31/2020

DW

AQU1

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

Qualifiers:

We report results on an As Received or wet basis unless marked Dry Weight. Unless otherwise noted, testing was performed at Ana-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-20-17, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No LA026, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-068-0. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation.

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Trey Peery, MA, Project Manager



Quality Control



Page 1 of 1

Project

Printed 12/31/2020

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

AQU1-G

Analytical Set	931895									EPA 3	300.0 2.1
				E	Blank						
<u>Parameter</u>	PrepSet	Reading	MDL	MQL	Units			File			
Chloride	931895	0.0316	0.0211	0.100	mg/L			121905530			
					CCV						
<u>Parameter</u>		Reading	Known	Units	Recover%	Limits%		File			
Chloride		9.64	10.0	mg/L	96.4	90.0 - 110		121905526			
Chloride		10.7	10.0	mg/L	107	90.0 - 110		121905542			
				LC	S Dup						
<u>Parameter</u>	PrepSet	LCS	LCSD		Known	Limits%	LCS%	L CSD%	Units	RPD	Limit%
Chloride	931895	5.18	5.16		5.00	85.0 - 110	104	103	mg/L	0.387	20.0
				ı	MSD						
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	1950206	298	298	186	100	80.0 - 120	112	112	mg/L	0	20.0
Analytical Set	932053									EPA 3	300.0 2.1
,				Е	Blank						
Parameter	PrepSet	Reading	MDL	MQL	Units			File			
Sulfate	932053	ND	0.0871	0.100	mg/L			121908878			
					ccv						
Parameter		Reading	Known	Units	Recover%	Limits%		File			
Sulfate		10.1	10.0	mg/L	101	90.0 - 110		121908874			
Sulfate		10.1	10.0	mg/L	101	90.0 - 110		121908890			
Sulfate		10.0	10.0	mg/L	100	90.0 - 110		121908902			
				LC	S Dup						
Parameter	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Sulfate	932053	5.08	5.12		5.00	88.0 - 110	102	102	mg/L	0.784	20.0
				ı	MSD						
<u>Parameter</u>	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
	1950523	141	139	92.0	50.0	80.0 - 120	98.0	94.0	mg/L	4.17	20.0
Sulfate	1930323	171							-6-		

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

Blank - Method Blank; CCV - Continuing Calibration Verification



Report Page 5 of 7

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

CONTAINERS SUPPLIED:

Chloride - EPA 300.0 Analysis Request for:

() D041252-01 [E] - [SUB] ANA CI SO4 0.25LP

[Split from -01 A]



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) 984-5914

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.

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

Matrix: Drinking Water Laboratory ID >>

Sample ID: D041252-01 Sampled: 12/28/20 12:30 SO4 DW - EPA 300.0

C-O-C#

494 - D041252

T104704371

ort Page 6 of 7

RREI	Austin Facility		N/A	N/A	N/A
Out Due & Divers	Please return cooler(s) to:				Cooler 1
Techniched for	reporting@aqua-techlabs.com	Thermometer ID	Corrected Temp. (CT)	Temp. Read (TR)	Cooler Temperature (°C)
	Please email reports to:	listed above.	Line below documents condition at receipt in lab (shipped to) listed above.	ts condition at rece	Line below documer
۵	7/19/20 0900 Leondition Good	16	\ \ \ \	Ana-Lab	Kathy Tarver Ana-Lab
:	70			<u> </u>	
15 DAY TAT	Section in a			Received in Lab	Received by: (print & sign)
Aqua-Tech Comments and Special Instructions	"X" all that apply	1 00000	\ <u>.</u>	\	Lone Star
		Cooler 1: AOI 11 - 710000 43	Cooler 1:	مصني	Carrier & Tracking Number:
CTU - Custody Transfer Unbroken LG - Liter Glass	1615			: penés	
S - Solid LP - Uter Plastic	12/28/20 14 :55 Not Chilled		{	Ç	Christie Ionnu
NP - Non-Potable Water StP - Sterile Plastic				-) : :
Abbreviations: DW - Drinking Water	Date Time Coed	Sampler	ATL - Bryan	X ATL-Austin	Relinquished by: (print & sign) X ATL-Austin
n Mae, COTT >	What when m				

Page 1 of 1

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948695 CoC Print Group 001 of 001

12/28/2020

https://www2.lso.com/weblabels/?labelsize=0&combinedlabel=1&sessionkey=%7B8FCC6A01-F16A-4FDE-9B12-752E81478E99%7D





LSO 1-800-800-8984 www.lso.com

SHIP TO: RECEIVING ANA LAB CORP 2600 DUDLEY ROAD RD KILGORE, TX 75662 9039840551 From: CHRISTIE TONNU AQUA TECH LABS 3512 MONTOPOLIS DR AUSTIN, TX 78744 5123019559



LSO ECONOMY NEXT DAY

3:00 IN MOST AREAS LATER IN REMOTE AREAS

PRINT DATE: 12/28/2020 REF 3: QUICKCODE: WEIGHT: 15.00LBS REF 1: 1D00V.0000 REF 2:

Date Time / Tech
Temp: 0,5 / 0.5

Therm#: 6443 Corr Fact: 0.0 C

Fold on above line and place shipping label in pouch on package Please be sure the barcodes and addresses can be read and scanned. Shipping Instructions

- 1. Fold this page along the horizontal line above.
- 2. Place this Airbill in the shipping label pouch on the package you are shipping. Please be sure the barcodes and addresses can be read and scanned.
- 3. To locate a drop box near you, click on Find A Drop Box from the home page main menu.
- 4. To schedule a pickup, click on Request Pickup.

WARNING: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your Lone Star Overnight account number.

This label is valid for use for 3 months from the date printed. Use of expired labels may result in delayed billing and / or additional research charges. LIMIT

OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES OR RESIDENTIAL DELIVERIES.

Report Page 7 of 7