

Draft Environmental Impact Statement

Appendix F Groundwater Well Investigation





PUMPING TEST PROGRAM
CLOVEWOOD PROPERTY
BLAGGS CLOVE,
VILLAGE OF SOUTH
BLOOMING GROVE,
ORANGE COUNTY, NEW YORK

PROJECT NO.: 770113.LAKANN.00

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Clovewood Property, Pumping Test Program Project No. 770113.LAKANN.00



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EXECUTIVE SUMMARY

Clovewood Property, Pumping Test Program

Project No. 770113.LAKANN.00

LBG Hydrogeologic & Engineering Services, P.C. (LBGHES), member of WSP, conducted a pumping test program on the Clovewood property on Clove Road in the Village of South Blooming Grove, Orange County, New York in July 2017. The goal of the Clovewood pumping test program was to demonstrate a minimum yield of twice the average water demand of the project with the best well out of service from the new community, public water-supply source. To achieve this goal, a simultaneous pumping test was conducted on wells C-6, C-12, C-14, C-16 and C-23 between July 10 and July 16, 2017. The five wells were pumped concurrently for 5.5 days and demonstrated pumping rates of 45 gpm (gallons per minute), 40.5 gpm, 157 gpm, 50 gpm, and 90 gpm, respectively, for a combined yield from the five wells of 382.5 gpm or 550,800 gpd (gallons per day). This combined yield can support an average water demand of 191.3 gpm or 275,400 gpm. An individual pumping test was then conducted on Well C-21. Well C-21 was pumped individually as the best well between July 25 and July 28, 2017 for 72.5 hours. The well demonstrated a pumping rate of 163 gpm or 234,720 gpd.

The average water demand for the Clovewood project calculated based on the March 2014 New York State Design Standards for Intermediate Sized Wastewater Treatment Systems water usage rate of 110 gpd/bedroom for 600, 4-bedroom residential units is 264,000 gpd or 183.3 gpm. The New York State Department of Health (NYSDOH) requires that a new water system demonstrate twice the average water demand of a proposed development with the best well out of service. Therefore, to meet this NYSDOH requirement, the water system must be capable of pumping 528,000 gpd or 366.7 gpm with the best well out of service. In addition, the applicant may also consider the inclusion of swimming pools/bath houses in the proposed development. The water usage rate for a swimming pool/bath house is based on 10 gpd per swimmer with an allowed 20% reduction for the use of water saving fixtures. Assuming 2 swimmers per residential unit, the additional water demand would be 9,600 gpd or 6.7 gpm. Adding this demand to the proposed 600 units, the combined average water demand with the bath houses is 273,600 gpd or 190 gpm and twice the demand is 547,200 gpd or 380 gpm.

Prior to completion of the pumping tests, a testing and monitoring protocol dated September 30, 2016 (aka Pumping Test Plan), designed in accordance with the NYSDEC February 2015 "Pumping Test Procedures for Water Withdrawal Applications", was submitted to the Village of South Blooming Grove (VoSBG), New York State Department of Environmental Conservation (NYSDEC), Orange County Department of Health (OCDH) and NYSDOH for review. Comments received from the VoSBG's Consultant, Louis Berger Group, the NYSDOH, and the NYSDEC were incorporated into the Pumping Test Plan.

Initially, the pumping scheme proposed to include wells C-7B and C-21 in the simultaneous pumping test and well C-7A during the individual test. However, offsite water-level drawdown was observed during the early portion of the simultaneous pumping test that was attributed to pumping in well C-7B. As a result of the offsite drawdown the pumping scheme was changed, wells C-7B and C-7A were removed as pumping wells and well C-21 was assigned the role of the best well to be tested during the individual pumping test. Pumping in wells C-7B and C-21 was ended on July 12 and the simultaneous pumping test continued without these wells. Well C-21 was subsequently yield tested during the individual test conducted July 25 through July 28. VoSBG's Consultant Louis Berger Group was notified of the change in the planned pumping scheme during the test period.

During the pumping test program, water-level measurements were collected from a total of 24 onsite wells, including 17 onsite bedrock monitoring wells and the 7 wells pumped during the testing program (C-6, 7B, 12, 14, 16, 21 and 23). Drawdown was measured in 16 of the onsite bedrock monitoring wells from pumping in wells C-6, 12, 14, 16 and 23 that ranged from 0.6 foot to 120.7 feet. During the individual pumping test conducted on well C-21, water-level drawdown was measured in three onsite monitoring wells that ranged from 15.8 feet to 93.5 feet. Water-level measurements were also collected from 16 offsite wells and a flowing spring on Route 208 during the pumping test program. No discernible water-level impacts were measured in any off the offsite monitoring locations that were attributed to pumping in wells C-6, 12, 14, 16 and 23 during the simultaneous pumping test or to pumping well C-21 during the individual pumping test.

Onsite monitoring of surface-water features was also completed during the pumping test program. Water-level measurements were collected from eight piezometer locations and stream-flow measurements were collected from nine gaging locations on the project site. The stream-flow data collected showed no discernible change in flow that was attributed to pumping in the onsite wells. The water-level data collected from seven piezometers showed no discernible pumping-related water-level drawdown in the groundwater and/or surface water during either pumping test. One piezometer, PZ-8, had a change in the groundwater level during the pumping tests that could potentially be pumping related; however, there was no discernible effect on the surface water at PZ-8 from onsite pumping. Additional monitoring of the shallow groundwater at PZ-8 may be warranted to conduct an assessment of whether the change observed was naturally occurring or a result of onsite pumping.

Water samples were collected from the onsite wells during their respective pumping periods and analyzed for the parameters required by the NYSDOH Sanitary Code Part 5, Subpart 5-1 for community water-supply wells and for the extra compounds of dioxin, endothall, diquat and glyphosate. In addition, microscopic particulate analysis (MPA), giardia and cryptosporidium samples were collected from all of the wells. The results of the water samples collected from the six proposed supply wells met all NYSDOH drinking water standards with the exception of iron, manganese, color and turbidity concentrations in wells C-6, 14, 16, 21 and 23; the presence of total coliform and E. coli bacteria in well C-12; and a slightly elevated sodium concentration in well C-16. Following the completion of the pumping test program, well C-12 was disinfected and resampled for total coliform and E.coli. The results from the resampling event were absent for total coliform. Overall, the elevated iron, manganese and color concentrations reported are likely the result of the elevated turbidity concentrations. Dissolved iron and manganese samples were analyzed from the wells and showed significantly lower concentrations. Additional pumping to further develop the wells and reduce turbidity concentrations will likely be successful in reducing the iron, manganese and color values reported. The sodium concentration in well C-16 was 21.1 mg/L, which was slightly above the reporting limit of 20.0 mg/L. No treatment to reduce the sodium concentration will be required, as the exceedance of a notification level only.

The results for the MPA samples collected from all of the wells were reported to be low risk for potential GWUDI and all of the samples reported none detected for giardia and cryptosporidium. The physical parameters measurements of temperature, pH and conductivity collected from the pumping wells and nearby surface-water features (where surface water was present) during their respective pumping tests as part of an assessment for potential GWUDI also did not indicate a high risk of potential GWUDI in any of the onsite pumping wells.

1.0 INTRODUCTION

The following are the results of the pumping test program conducted in July 2017 by LBG Hydrogeologic & Engineering Services, P.C. (LBGHES), member of WSP USA, on the proposed bedrock water-supply wells located on the Clovewood property on Clove Road in the Village of South Blooming Grove, Orange County, New York (figure 1).

Prior to completion of the pumping tests, a testing and monitoring protocol (aka Pumping Test Plan) was prepared. The Pumping Test Plan, dated September 30, 2016, was submitted to the Village of South Blooming Grove (VoSBG), NYSDEC, Orange County Department of Health (OCDH) and New York State Department of Health (NYSDOH) for review prior to completion of the pumping test program. The protocol was designed in accordance with the New York State Department of Environmental Conservation (NYSDEC) February 2015 "Pumping Test Procedures for Water Withdrawal Applications".

Comments were received from the VoSBG's Consultant, Louis Berger Group, in a letter dated November 2, 2016. Responses to those comments and incorporation of the comments into the Pumping Test Plan were noted in the responses provided to VoSBG by LBG in a letter dated February 28, 2017. Comments were also received from the NYSDOH recommending that all pumping wells be tested for groundwater under the direct influence of surface water (GWUDI), and from the NYSDEC regarding conducting the pumping tests during dry conditions and potentially pushing the test start time to the drier summer months. No comments beyond those provided by the NYSDOH were received from the OCDH.

The comments from the NYSDOH and NYSDEC were also incorporated into the planned well testing protocol. Copies of the e-mail correspondence from the NYSDOH, OCDH, and NYSDEC pertaining to the review of the Pumping Test Plan are included in Appendix I.

2.0 WATER DEMAND

An average water demand for the Clovewood project has been calculated based on the March 2014 New York State Design Standards for Intermediate Sized Wastewater Treatment Systems water usage rate of 110 gpd/bedroom. For the planned 600, 4-bedroom residential units the average daily demand is 264,000 gpd or 183.3 gpm. The NYSDOH requires that a new water system demonstrate twice the average water demand of a proposed development with the best well out of service. Therefore, to meet this NYSDOH requirement, the water system must be able to pumping 528,000 gpd or 366.7 gpm with the best well out of service.

The applicant may also consider the inclusion of swimming pools/bath houses in the proposed development. The water usage rate for a swimming pool/bath house has been calculated based on 10 gpd per swimmer with an allowed 20% reduction for the use of water saving fixtures. A water demand requirement for the potential swimming pools/bath houses have been calculated assuming 2 swimmers per residential unit, which results in a water demand of 9,600 gpd or 6.7 gpm (2 swimmers x 600 units x 10 gpd/swimmer x 20% reduction for use of water saving fixture = 9,600 gpd).

Inclusion of the water demand for the swimming pool/bath houses with the residential water demand from above, results in an average water demand of 273,600 gpd or 190 gpm and twice this demand, to meet the NYSDOH requirement described above, is 547,200 gpd or 380 gpm.

3.0 HYDROGEOLOGIC SETTING

The Clovewood property is located on Clove Road in the Village of South Blooming Grove, New York (figure 1). The hydrogeologic features at the site are shown on figure 2 and Plate 1. The topographic high elevations on the property are located along the southern property boundary, with the highest elevations at the site around 1,360 feet. The topography slopes down from southeast to northwest toward Clove Road. The low topography on the site is located in the valley setting along Clove Road, with the lowest topographic elevation around 480 feet.

There are two small stream channels that flow off from the project site. They both exit the site along the western property boundary near the intersection of Clove Road and Route 208. The headwaters for both streams originate on the Clovewood property. The more northerly stream flows near pumping wells C-12 and C-7B and collects runoff from the northern and central portions of the project site. A dam was built by a prior property owner on this stream channel near onsite monitoring wells C-5 and C-9. There is ponded water behind the dam and some wetland areas around and upstream of the pond. The stream channel re-forms downstream of the dam and the stream flows west and off the site. The southerly stream passes near pumping wells C-6, 14, 21 and 23 and receives runoff from the southern and western portions of the project site. In addition to the wetlands near the valley pond formed by the dam, there are several other small-scale wetland areas also located around the project site (Plate 1).

3.1 Surficial Geology

The surficial material underlying the project site is mapped as mainly glacial till. Glacial till consists of non-sorted, non-stratified sediments deposited by glacial activity. The sediments contain varying proportions of clay, silt, sand, gravel and boulders. Till is generally not suitable for well development because, as a result of the unsorted character of the material, it does not transmit water in sufficient quantities to support high-yielding wells. There is also a small area of sand and gravel mapped in the valley setting on the northwestern portion of the project site along Clove Road. This sand and gravel was encountered during the drilling of wells C-7A and C-7B. However, the material was not of suitable composition or saturated thickness to attempt the development of a sand and gravel water-supply production well.

3.2 Bedrock Geology

Clovewood Property, Pumping Test Program

Project No. 770113.LAKANN.00

The bedrock units mapped underlying the project site include the Martinsburg Formation (On), Undifferentiated Lower Devonian and Silurian Rocks (DS), and Undifferentiated Hamilton Group (Dh); and to the northeast of the site is mapped the Wappinger Group (OEw) and to the west and northwest some Undifferentiated Gneiss (mu). The bedrock units, geologic contacts, fracture-trace lineations and mapped faults underlying the property are shown on figure 2.

The bedrock in this area is sedimentary rock, with the exception of the undifferentiated gneiss which is metamorphic. The Martinsburg Formation contains shale, siltstone, sandstone and greywacke; the Undifferentiated Lower Devonian and Silurian Rocks are comprised of shale, sandstone and conglomerates; the Undifferentiated Hamilton Group contains shale, siltstone, sandstone, conglomerate and greywacke and the Wappinger Group is comprised of limestone dolomite and shale.

4.0 WELL INFORMATION

Well Completion Reports with the drilling logs for onsite wells C-4, 5, 6, 7, 7A, 7B (aka C-24), 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22 and 23 are provided in Appendix II. Wells C-Well 1, C-Well 2, C-Well 3 and C-13 were original to the property and well logs for those four wells are not available.

Wells C-6, 7A, 7B, C-12, C14, C-16, C-21 and C-23 were listed in the Pumping Test Plan as the wells that would be tested during the pumping test program. A summary of the well completion information and the temporary pump settings used in these wells during the pumping tests are provided in the table below.

Table 1: Pumping Well Completion Information

Well ID	Well Casing Diameter (inches)	Well Casing Length (feet)	Well Total Depth (feet)	Pump Setting During Pumping Test Program (feet)	Depth of Reported Water-Bearing Fractures (feet) and Estimated Yield from Driller's Well Log (gpm)
C-6	8	61	600	300	80 (25 gpm); 320 (50 gpm)
C-7A1/	8	80	300	200	250 (200 gpm); 256 (100 gpm); 265 (100 gpm); 280 (100 gpm)
C-7B ^{1/}	8	100	280	200	176-190 (10 gpm); 193-194 (20 gpm); 210 (20 gpm); 230-231 (150 gpm); 247- 260 (300 gpm); 274-290 (200 gpm)
C-12	8	70	580	230	560 (125 gpm)
C-14	8	50	750	180	110 (35 gpm); 125 (90 gpm); 610-615 (50 gpm)
C-16	8	50	690	240	245 (45 gpm); 330 (15 gpm); 600 (50 gpm)
C-21	8	101	1,010	400	150 (30 gpm); 160-180 (50 gpm); 490 (120 gpm);
C-23	8	101	1,000	400	120 (5 gpm); 160 (5 gpm); 215 (30 gpm); 600 (40 gpm); 645 (20 gpm)

The pumping test on well C-7B was terminated early because of offsite water-level effects observed that were attributed to pumping in this well. Because of the effects observed from pumping of C-7B, well C-7A was not tested.

gpm gallons per minute

5.0 PRECIPITATION

As part of the pumping test program, precipitation information was monitored at the nearby Port Jervis weather station, a local weather station (KNYWASHI9) that publishes daily weather data on the internet, and a manual rain gage installed on the project site. Precipitation values for the test period from these three locations are provided in the tables below. The precipitation totals from the KNYWASHI9 station have been used on the hydrographs for reference and the precipitation's effect, if any, are discussed in the sections below for the wells and surface-water monitoring locations. The data from KNYWASHI9 was used on the hydrographs because of the measurement frequency (every 5 minutes), the data consistency with the measurements collected from the onsite manual rain gage, and because of the station's close proximity to the project site.

Table 2: Daily Precipitation Totals for the Port Jervis Weather Station and Local Station KNYWASHI9

Date	Port Jervis Precipitation (inches)	KNYWASHI9 Precipitation (inches)
7/3/2017	0	0
7/4/2017	0	0
7/5/2017	0	0
7/6/2017	0	0
7/7/2017	0.12	0.57
7/8/2017	0.7	0.14
7/9/2017	0	0
7/10/2017	0	0
7/11/2017	0.03	0.07
7/12/2017	0	0
7/13/2017	0	0.30
7/14/2017	0.75	0.80
7/15/2017	0.37	0.01
7/16/2017	0	0
7/17/2017	0	0.06
7/18/2017	0	0
7/19/2017	0.52	0
7/20/2017	0	0.34
7/21/2017	0.58	0
7/22/2017	0	0
7/23/2017	0	0
7/24/2017	0.20	0.79
7/25/2017	0.89	0
7/26/2017	0.28	0
7/27/2017	0	0
7/28/2017	0	0
7/29/2017	0	0
7/30/2017	0	0
7/31/2017	0	0

Date	Port Jervis Precipitation (inches)	KNYWASHI9 Precipitation (inches)
8/1/2017	0	0
8/2/2017	0	0.21
8/3/2017	0.20	0

Table 3: Precipitation Readings from Manual Rain Gage Installed on Clovewood Property

Date	Time of Reading	Precipitation (inches)
6/30/2017	13:00	Rain gage installed
7/3/2017	14:00	0
7/5/2017	14:30	0
7/6/2017	14:30	0
7/7/2017	7:45	1.03
7/8/2017	16:45	0.35
7/9/2017	16:20	0
7/10/2017	7:00	0
7/11/2017	4:45	0.01
7/12/2017	7:30	0
7/12/2017	19:30	0
7/13/2017	12:00	0
7/13/2017	14:45	0.80
7/14/2017	7:45	0.70
7/15/2017	12:00	0
7/16/2017	11:00	0.01
7/17/2017	9:30	0
7/24/2017	8:00	0.90
7/25/2017	12:00	0
7/26/2017	12:00	0
7/27/2017	7:00	0
7/28/2017	7:00	0
7/28/2017	18:00	0

During the background data collection period from July 3 through July 9, a total of 0.71 inch of rain was measured at the nearby station KNYWASHI9 and 1.38 inches in the manual gage on the Clovewood property. The rain during the background data collection period mainly occurred on July 7 and 8. During the simultaneous pumping test period from July 10 through July 16, a total of 1.18 inches of rain was measured at the KNYWASHI9 station and 1.51 inches in the onsite manual rain gage. The majority of the rain measured during the simultaneous pumping test occurred in the middle of the test period on July 13 and 14. Following the end of the simultaneous pumping test during the recovery period and pre-test period for the individual pumping test, a total of 1.19 inches of rain was recorded at the KNYWASHI9 station and 0.91 inch in the onsite manual rain gage. The larger rain events during this period occurred on July 20 and July 24.

No precipitation was recorded at either the onsite manual rain gage or at KNYWASHI9 station during the individual pumping test conducted on well C-21 between July 25 and 28, or during the post-test recovery period until a rain event on August 2. The rain event on August 2 totaled 0.21 inch and occurred five days after the test was ended.

In addition to daily precipitation values, monthly climate normals from 1981 through 2010 for the Port Jervis weather station were used for comparison to recent monthly precipitation totals to assess the regional precipitation conditions (i.e. dry, normal or above normal precipitation) at the time the pumping test program was conducted. Copies of this precipitation information for the Port Jervis weather station are provided in the table below and in Appendix III.

Table 4: Monthly Precipitation Values for the Port Jervis Weather Station July 2016 Through June 2017

Month	Total	Precipitation Normals	Difference Between
	Precipitation (inches)	1981-2010 (inches)	Monthly Total and Normal (inches)
July 2016	5.53	3.92	1.61
Aug 2016	4.68	3.89	0.79
September 2016	1.07	4.54	-3.47
October 2016	2.20	4.41	-2.21
November 2016	2.66	3.59	-0.93
December 2016	3.09	3.78	-0.69
January 2017	2.85	3.22	-0.37
February 2017	2.43	2.93	-0.50
March 2017	4.06	3.66	0.40
April 2017	4.49	4.04	0.45
May 2017	4.06	4.01	0.05
June 2017	3.26	4.39	-1.13
Total	40.38	46.38	-6.00

Based on the monthly normals from the Port Jervis station (Appendix III), the total precipitation in the 12 months prior to the test period (July 2016 through June 2017) was 40.38 inches which is -6.0 inches or -13% below the typical annual precipitation received in the region.

Table 5: Precipitation Values for the Port Jervis Weather Station

Year	Total Precipitation (inches)	Precipitation Normals 1981-2010 (inches)	Difference Between Annual Total and Normal (inches)	Percent Difference Between Annual Total and Normal
2012	40.17	46.38	-6.21	-13%
2013	42.91	46.38	-3.47	-7%
2014	39.71	46.38	-6.67	-14%
2015	43.86	46.38	-2.52	-5%
2016	33.65	46.38	-12.73	-27%
2017 (Through June 2017)	21.15	22.25	-1.10	-5%
Total	221.45	254.15	-32.70	-13%

Data from the five years preceding the test are also provided on the table above. The combined precipitation total beginning in 2012 (5.5 years prior to the Clovewood pumping tests) show a long-duration period of dry conditions that were a combined -13% below normal. The dry conditions prompted the NYSDEC to declare a drought watch which lasted from July 2016 to May 2017.

When evaluating drought conditions in New York State, the drought years of the 1960's are typically used as a benchmark to assess potential effects. The driest years occurred over a five-year span from 1962 through 1966. Over that five-year period, the regional precipitation was a combined 29% below normal based on a comparison to the 30-year normals from 1981 through 2010 for the Port Jervis station. The precipitation for Port Jervis from 1961 through 1970 is provided below for reference. An assessment of potential effects of prolonged drought conditions on the onsite pumping wells based on the 1960's drought data is provided in a separate section below.

Table 6: Annual Precipitation Values from the 1960's for Port Jervis and West Point Weather Stations

Year	Port Jervis Total Precipitation (inches)	30 year Port Jervis Precipitation Normal 1981- 2010 (inches)	Difference Between Annual Total and Normal (inches)	Percent Difference Between Annual Total and Normal
1961	42.22	46.38	-4.16	-9%
1962	32.97	46.38	-13.41	-29%
1963	35.56	46.38	-10.82	-23%
1964	32.75	46.38	-13.63	-29%
1965	29.97	46.38	-16.41	-35%
1966	33.09	46.38	-13.29	-29%
1967	41.45	46.38	-4.93	-11%
1968	37.38	46.38	-9.00	-19%
1969	43.15	46.38	-3.23	-7%
1970	36.76	46.38	-9.62	-21%

6.0 JULY 2017 PUMPING TEST PROGRAM

A pumping test program was conducted on the proposed bedrock water-supply wells for the Clovewood project in July 2017. A simultaneous pumping test was conducted on wells C-6, 12, 14, 16 and 23 between July 10 and July 16 and an individual pumping test was conducted on well C-21 between July 25 and July 28. Initially, the Pumping Test Plan proposed to include wells C-7B and C-21 in the simultaneous pumping test and well C-7A during the individual test. However, offsite water-level drawdown was observed during the early portion of the simultaneous pumping test that was attributed to pumping in well C-7B. As a result of the offsite drawdown the pumping scheme was changed, wells C-7B and C-7A were removed as pumping wells and well C-21 was assigned the role of the best well to be tested during the individual pumping test. Pumping in wells C-7B and C-21 was ended on July 12 and the simultaneous pumping test continued without these wells. Well C-21 was subsequently yield tested during the individual test conducted July 25 through July 28.

During the pumping test program, LBG was in communication with Louis Berger and representatives from Louis Berger conducted periodic site visits to review the progress of the pumping tests. Louis Berger was notified of the change to the pumping scheme, which deviated from the September 2016 Pumping Test Plan, at the time the change was made.

As part of the pumping test program, water-level measurements were collected from a total of 24 onsite wells, including 17 onsite bedrock monitoring wells and the 7 wells pumped during the testing program (C-6, 7B, 12, 14, 16, 21 and 23). Water-level data was collected using manual water-level meters and pressure transducers, both vented and unvented type units. In wells where unvented transducer units were utilized, the data was corrected for barometric pressure changes using data recorded on a barotroll installed on the Clovewood site. The onsite monitoring well locations are shown on Plate 1.

Hydrographs, 180-day water-level drawdown projection graphs for wells C-6, 12, 14, 16 21 and 23, and summary tables of pressure transducer water-level measurements collected from the pumping wells are included in Appendix IV. All of the water-level data collected from the pressure transducers installed in the pumping wells are included on the attached CD. An assessment of potential severe drought effects on the water levels in the onsite pumping wells has also been conducted using information from the 1960's drought in New York State and correlating water-level data with a historical USGS well RO-18. The correlation graphs for this assessment are included in Appendix V.

Hydrographs and a table of the manual water-level measurements collected from the onsite monitoring wells are included in Appendix IV. Water-level measurements were also collected from 16 offsite wells and a flowing spring on Route 208 during the pumping test program. Water-level data was collected using manual water-level meters and vented pressure transducers installed in the wells; and a 5-gallon volume calibrated bucket was used to measure the flow at the spring. The offsite monitoring locations are shown on figure 1. The hydrographs and tables of the manual water-level measurements collected from the offsite wells are included in Appendix VII. The water-level data collected from the pressure transducers installed in the onsite and offsite monitoring wells are also included on the attached CD.

Surface-water monitoring was also conducted on the project site during the pumping test program. Waterlevel measurements were collected from piezometers installed in surface-water features at eight locations on the site. Manual water-level measurements were collected from the piezometers and vented pressure transducers installed at select locations. The piezometer monitoring locations were selected in surface-water features that parallel the fracture-trace lineations on the project site and were placed close to the seven pumping wells where drawdown (if any were to occur) would most likely be measurable. An additional eighth piezometer monitoring location was installed near onsite monitoring well C-22 as proposed in the Pumping Test Plan. Where surface water was present, a single piezometer was installed and groundwater level measurements were collected from the interior and surface-water height measurements from the exterior to assess potential water-level drawdown and changes in vertical head. At locations where no surface water was present or the presence of surface water was sporadic, a nested pair of piezometers was installed, with one shallower screen and one deeper screen setting. Groundwater level measurements were collected from the interior of both nested piezometers, and when present, surface-water height on the exterior was measured to assess potential water-level drawdown and changes in vertical head. The piezometer locations are shown on Plate 1. Hydrographs for the piezometers along with tables of the manual waterlevel measurements collected are included in Appendix VIII. The water-level data collected from the pressure transducers are included on the attached CD.

Stream-flow measurements were also collected in the surface water at nine locations. The measurements were collected manually during the pumping test program using a Marsh McBirney Flow meter. At each gaging location the channel was divided into equal sections and the flow in each section measured. The flows from the sections in the channel were summed to calculate the total flow at each location for each gaging event conducted. The surface-water monitoring locations are shown on Plate 1. Graphs and a table of the stream flow measurements are included in Appendix IX.

The simultaneous pumping test was started on July 10. A staggered startup of the wells was conducted to allow for potential differentiation of drawdown impacts to other pumping wells and the monitoring wells being measured. The order of the well pump startups were C-21, 23, 14, 16, 6, 12 and 7B. As described above, the pumps in wells C-7B and C-21 were turned off on July 12 and the simultaneous pumping test continued without these wells. During the simultaneous pumping test, several of the wells experienced generator failures. These failures were addressed with Louis Berger during the test period since they caused a deviation from the Pumping Test Plan. The consensus was that in wells that experienced generator issues, the water-level trend in the well at a minimum should return to its pre-shutdown trend and then from that point a judgement should be made whether the well had achieved the required benchmarks for test stabilization and shutdown. In total, the simultaneous pumping test lasted 5.5 days as a result of the change in pumping scheme on July 12 with the shutdown of wells C-7B and C-21 and several generator failures later in the test which are described below.

After shut down of the simultaneous pumping test on July 16, water-level recovery measurements were collected until the start of the individual test on well C-21 on July 25. The test on well C-21 lasted 72.5 hours and was ended on July 28. Water-level recovery measurements were collected from the onsite and offsite monitoring locations following shutdown and equipment removal began on July 31.

The discharge locations used during the pumping tests are shown on Plate 1. The discharge locations were downstream/downgradient of all of the onsite monitoring wells and surface-water monitoring locations. The well discharge rates were measured using totalizing meters attached to the discharge lines near the wellheads and also with a calibrated bucket and stop watch from the discharge pipes.

Water samples were collected from wells C-6, 12, 14, 16, 21 and 23 during their respective pumping test periods for analysis for all parameters required by the NYSDOH Sanitary Code Part 5, Subpart 5-1, as well as the extra synthetic organic compounds (SOCs) dioxin, endothall, glyphosate, and diquat. Microscopic particulate analysis (MPA) and giardia and cryptosporidium samples were also collected from the wells to assess for potential GWUDI. The MPA samples were collected from the wells using the EPA Consensus Method which requires the flow of discharge water through a filter at 1 gpm for a time period ranging from 8 to 24 hours. The water samples were taken to Envirotest Laboratories, Inc. located in Newburgh, New York for analysis. Copies of the laboratory reports from the samples collected are included in Appendix X. Additional samples were collected from wells C-12 and C-23 in September 23 to address detections reported in the Part 5 analyses. Copies of the laboratory reports from this resampling event are included in Appendix XI.

In addition to the MPA samples, physical parameter measurements of pH, conductivity and temperature were also collected from the pumping wells and nearby surface-water features during the pumping tests as part of the GWUDI assessment. Conductivity and pH measurements were collected using a HORIBA water-quality meter. Temperature measurements were recorded using the pressure transducers. For the surface-water features, temperature measurements used in the comparison were taken from the pressure transducers installed on the exterior of the closest piezometer or, if insufficient surface water was present, from the interior of the nearest shallow-screened piezometer. Tables of the physical parameter measurements and graphs of the data collected are included in Appendix XII.

6.1 WELL C-6

Throughout the background data collection period, the water in well C-6 was flowing slightly artesian over the top of the casing. During the staggered start-up period of the simultaneous pumping test on July 10, the pumps in wells C-21, C-23, C-14 and C-16 were started prior to the start of the pump in well C-6. The artesian flow in well C-6 stopped at approximately 17:03 on July 10, approximately 1.5 hours before the pump in well C-6 was turned on.

The pump in well C-6 was started at 18:35 on July 10. The water level in well C-6 prior to the start of pumping in any of the onsite wells was 0.00 feet below top of casing (ft btoc). Just prior to the start of the pump in the well at 18:34, the water level in well C-6 was 3.87 ft btoc. Based on the end of artesian flow at 17:03, the drawdown observed is attributed to pumping in nearby well C-14 whose pumping start occurred at 16:24.

Upon startup of well C-6, the pumping rate was adjusted to 50 gpm using a valve on the discharge line. The pumping rate in well C-6 remained at 50 gpm until a manual rate reduction to 45 gpm was completed at 18:54

on July 12. The rate reduction on well C-6 was completed to reduce the slope of the water-level drawdown trend observed in well.

Following the manual rate reduction completed on July 12, the pumping rate in well C-6 remained at 45 gpm with the exception of three occurrences of generator malfunctions which caused the pump in well C-6 to shut down. The shut downs occurred on July 13 between 4:03 and 5:26, on July 13 from 20:06 to 21:12, and on July 15 from 00:35 to 00:56.

During the final 24 hours of the pumping period, the pumping rate in well C-6 remained at 45 gpm and no generator or pump failures occurred. At 1:09 on July 16 the simultaneous pumping test was ended with the shutdown of the pump in well C-14. This was followed by the shutdown of the pump in well C-6 at 1:11. The final water level in well C-6 at the end of the test was 122.92 ft btoc. Based on a static water level of 0.00 ft btoc, the total drawdown in well C-6 was 122.92 feet at the end of the simultaneous pumping test period.

The drawdown in well C-6 over the final 6 hours of pumping between 19:09 on July 15 to 1:09 on July 16 was 1.19 feet. This value meets the criteria of demonstrating less than 0.5 feet per 100 feet of available drawdown in the well over the final 6 hours of the test period. However, the trend in the water level was downward during this time, so a 180-day water-level drawdown analysis has been conducted. Based on the projection, after 180 days of continuous pumping in well C-6, the total drawdown is 209.77 feet which corresponds to a water level of 209.77 ft btoc. This leaves approximately 90 feet of available drawdown above the pump setting in the well that used during the pumping test period, which meets the requirement of maintaining a margin of 5% of the pre-test water column (minimum 30 feet) above the pump setting in the well.

The water level in well C-6 recovered following shut down of the pump in the well. The water level reached 90% of the pre-test level approximately 57 hours after the end of the test and continued to rise. Well C-6 began to flow artesian again at approximately 15:30 on July 20.

On July 12, during the simultaneous pumping test, the pumps in wells C-7B and C-21 were turned off at 11:28 and 11:56, respectively, and the tests on those wells were ended. There was no discernible disruption of the water-level drawdown trend in well C-6 that coincides with the shutdown of either well. In addition, during the individual pumping test on well C-21 from July 25 through July 28, no discernible water-level drawdown was measured in well C-6 that is attributed to pumping in well C-21.

6.2 WELL C-7B

The water level in well C-7B showed some oscillation during the background data collection period, with a slight drawdown trend of 0.5 feet over the seven days preceding the start of the simultaneous pumping test. During the staggered start-up period of the simultaneous pumping test on July 10, the pumps in wells C-21, 23, 14, 16, 6 and 12 were started prior to the start of the pump in well C-7B.

The pump in well C-7B was started at 21:03 on July 10. The water level in well C-7B prior to the start of pumping in any of the onsite wells was 32.66 ft btoc. During the staggered start-up period of the other onsite pumping wells, no discernible drawdown was measured in well C-7B. At 20:40 prior to the start on well C-7B, the water level was 32.57 ft btoc which was a rise of 0.09 feet over the nine hour staggered start-up period.

Upon startup of well C-7B, the pumping rate was adjusted to 220 gpm using a valve on the discharge line. The pumping rate in well C-7B declined slightly as a result of the loss of pressure head over the pump and was 215 gpm by 15:00 on July 11. The pumping rate in well C-7B remained at 215 gpm until the end of the test on this well on July 12 with the exception of two occurrences of pump shut down on July 12 between 1:00 and 1:17 and again on July 12 from 10:04 to 10:27.

On July 12, LBG determined that the water-level drawdown that was occurring in several of the offsite monitoring locations was attributed to pumping in well C-7B. Because of this interference, it was decided to shut down well C-7B and continue the simultaneous test without this well. The pump in well C-7B was turned off at 11:28 on July 12. The pumping water level in well C-7B prior to shut down was 76.37 ft btoc. Based on a static water level of 32.66 ft btoc, the total drawdown in well C-7B was 43.71 feet. However, a lower water level was observed at 10:03 on July 12, prior to the generator malfunction earlier that morning. At 10:03 the pumping water-level was 77.94 ft btoc and the drawdown was 45.28 feet.

The water level in well C-7B recovered following shut down of the pump in the well. The water level reached 90% of the pre-test level approximately 69.5 hours after the shut down on July 12 and continued to rise.

On July 16 at the end of the simultaneous pumping test on wells C-6, 12, 14, 16 and 23, no discernible inflection in the recovery trend in well C-7B was observed which would indicate a pumping-related effect on well C-7B from pumping in the other onsite wells. In addition, during the individual pumping test on well C-21 from July 25 through July 28, no discernible water-level drawdown was measured in well C-7B that is attributed to pumping in well C-21.

6.3 WELL C-12

The water level in well C-12 showed some oscillation during the background data collection period, but no overall increasing or decreasing trends were observed. During the staggered start-up period of the simultaneous pumping test on July 10, the pumps in wells C-21, C-23, C-14, C-16, and C-6 were started prior to the start of the pump in well C-12.

The pump in well C-12 was started at 19:48 on July 10. The water level in well C-12 prior to the start of pumping in any of the onsite wells was 102.98 ft btoc. Just prior to the start of the pump in the well at 19:47, the water level in well C-12 was 102.77 ft btoc. Based on the slight rise in water level observed during the staggered start up period, there was no discernible drawdown in well C-12 as a result of the start of pumping in the other onsite wells listed.

Upon startup of the pump in well C-12, the pumping rate was adjusted to 50 gpm using a valve on the discharge line. The pumping rate in well C-12 declined slightly as a result of the loss of pressure head over the pump and by 9:00 on July 12, the pumping rate was 42 gpm.

The MPA filtration apparatus was placed on well C-12 on July 11 and was removed on July 12. During the filtration period, the water level in well C-12 showed a sporadic oscillating pattern. This pattern continued after the filtration unit was removed from the well, so the pumping rate in well C-12 was manually reduced to 40.5 gpm at 13:04 on July 12 in an attempt to end the oscillation. After the rate reduction, the water level in well C-12 showed less fluctuation and the pumping rate remained at 40.5 gpm for the duration of the pumping test period.

At 1:09 on July 16 the simultaneous pumping test was ended with the shutdown of the pump in well C-14. This was followed by the shutdown of the pump in well C-12 at 1:21. The final water level in well C-12 just prior to turning the pump off at 1:20 was 191.33 ft btoc. Based on a static water level of 102.98 ft btoc from before the start of any of the pumping wells on July 10, the total drawdown in well C-12 was 88.35 feet at the end of the simultaneous pumping test period.

The water-level change in well C-12 over the final 6 hours of pumping between 19:09 on July 15 to 1:09 on July 16 was +1.05 feet. This value meets the criteria of demonstrating less than 0.5 foot per 100 feet of available drawdown in the well over the final 6 hours of the test period and there was no overall drawdown trend measured in the well.

Although there was no drawdown trend observed during the final six hours of the test period, a 180-day water-level drawdown analysis has been conducted for well C-12. The water-level project was completed using the final 24 hours of drawdown measurements because projections using the final 6 hours and final 12 hours both showed a significant increase in water level after 180 days which was not a realistic result. Based on the projection conducted, the water level drawdown after 180 days in well C-12 is 93.34 feet corresponding to a water level of 196.32 ft btoc. This leaves approximately 34 feet above the pump setting that was used during the pumping test period, which meets the requirement of maintaining a margin of 5% of the pre-test water column (minimum 23.85 feet) above the pump setting in the well.

The water level in well C-12 recovered following shut down of the pump in the well. The water level reached 90% of the pre-test level approximately 13 hours after the end of the test and continued to rise.

On July 12 during the simultaneous pumping test, the pumps in well C-7B was turned off at 11:28 and in well C-21 at 11:57 and the tests on those wells were ended. There was no discernible disruption of the water-level drawdown trend in well C-12 that coincides with the shutdown of either well. In addition, during the individual pumping test on well C-21 from July 25 through July 28, no discernible water-level drawdown was measured in well C-12 that is attributed to pumping in well C-21.

6.4 WELL C-14

The water level in well C-14 showed some oscillation during the background data collection period, but no overall increasing or decreasing trends were observed. During the staggered start-up period of the simultaneous pumping test on July 10, the pumps in wells C-21 and C-23 were started prior to the start of the pump in well C-14.

The pump in well C-14 was started at 16:24 on July 10, 2017. The water level in well C-14 prior to the start of pumping in any of the onsite wells was 0.25 ft btoc. Just prior to the start of the pump in the well, the water level in well C-14 was 0.36 ft btoc. The slightly lower water level measured at 16:23 appears to be the result of a slight normal oscillation in the daily water level. However, for the following analysis the water level measured at 11:54 of 0.25 ft btoc has been used as the static water level.

Upon startup of well C-14, the pumping was running slow so the rotation at the generator was corrected. Following the correction, the pumping rate in well C-14 was 152 gpm. A manual rate increase was conducted at 17:00 which brought the rate up to 168 gpm. From that point the pumping rate in well C-14 declined slightly as a result of the loss of pressure head over the pump and by 17:00 on July 11, the pumping rate was 157 gpm. The pumping rate in well C-14 remained at 157 gpm with the exception of three occurrences of generator malfunctions which caused the pump in well C-14 to shut down. The shut downs occurred on July 13 between 3.58 and 5:24, on July 13 from 20:02 to 21:10, and on July 15 from 00:33 to 00:53.

During the final 24 hours of the pumping period, the pumping rate in well C-14 remained at 157 gpm and no generator or pump failures occurred. At 1:09 on July 16 the simultaneous pumping test was ended with the shutdown of the pump in well C-14. The final water level in well C-14 just prior to turning the pump off was 121.67 ft btoc for a total drawdown of 121.42 feet at the end of the simultaneous pumping test period.

The drawdown in well C-14 over the final 6 hours of the pumping test between 19:09 on July 15 to 1:09 on July 16 was 0.61 feet. This value meets the criteria of demonstrating less than 0.5 feet per 100 feet of available drawdown in the well over the final 6 hours of the test period. However, the trend in the water level was downward during this time, so a 180-day water-level drawdown analysis has been conducted. Based on the projection, after 180 days of continuous pumping in well C-14, the total drawdown is 167.20 feet which corresponds to a water level of 167.45 ft btoc. This leaves approximately 12.5 feet above the pump setting in the well of 180 feet that was used during the pumping test period. In order to achieve the 5% water column above the pump setting (minimum 37.5 feet), the permanent pump setting when the design for well C-14 is completed should be at least 210 feet, which will also account for potential fluctuations in water level which may occur during extended drought periods discussed in further detail below.

The water level in well C-14 recovered following shut down of the pump in the well. The water level reached 90% of the pre-test level approximately 62 hours after the end of the test and continued to rise.

On July 12 during the simultaneous pumping test, the pumps in well C-7B was turned off at 11:28 and in well C-21 at 11:56 and the tests on those wells were ended. There was no discernible disruption of the water-level drawdown trend in well C-14 that coincides with the shutdown of either well. In addition, during the individual

pumping test on well C-21 from July 25 through July 28, no discernible water-level drawdown was measured in well C-14 that is attributed to pumping in well C-21.

6.5 WELL C-16

During the background data collection period, the water level in well C-16 showed a pattern of a slight daily oscillation with an overall drawdown trend of about 0.5 feet over three days. As part of the staggered start-up period of the simultaneous pumping test on July 10, the pumps in wells C-21, C-23 and C-14 were started prior to the start of the pump in well C-16.

The pump in well C-16 was started at 17:31 on July 10. The water level in well C-16 prior to the start of pumping in any of the onsite wells was 15.19 ft btoc. Just prior to the start of the pump in the well at 16:22, the water level in well C-16 was 15.25 ft btoc. For the following analysis, the water level measured at 11:54 of 15.19 ft btoc has been used as the static water level.

Upon startup of well C-16, the pumping rate was adjusted to 55 gpm using a valve on the discharge line. The pumping rate declined slightly to 53.5 gpm as a result of the loss of pressure head over the pump, so a manual rate increase to 56.5 gpm was completed at 17:57 on July 10. The pumping rate again declined as a result of the loss of pressure head over the pump and at approximately 23:00 on July 10 had reached 50 gpm. The pumping rate in well C-16 remained at 50 gpm for the duration of the test period.

At 1:09 on July 16 the simultaneous pumping test was ended with the shutdown of the pump in well C-14. This was followed by the shutdown of the pump in well C-16 at 1:41. The final water level in well C-16 just prior to turning the pump off at 1:40 was 177.23 ft btoc for a total drawdown of 162.04 feet at the end of the simultaneous pumping test period.

The drawdown in well C-16 over the final 6 hours of the pumping test between 19:09 on July 15 to 1:09 on July 16 was 0.44 feet. This value meets the criteria of demonstrating less than 0.5 foot per 100 feet of available drawdown in the well over the final 6 hours of the test period. However, the trend in the water level was downward during this time, so a 180-day water-level drawdown analysis has been conducted. Based on the projection, after 180 days of continuous pumping in well C-16, the total drawdown is 174.36 feet which corresponds to a water level of 189.55 ft btoc. This leaves approximately 50 feet above the pump setting in the well used during the pumping test period, which meets the requirement of maintaining a margin of 5% of the pre-test water column (minimum 33.7 feet) above the pump setting in the well.

The water level in well C-16 recovered following shut down of the pump in the well. The water level reached 90% of the pre-test level approximately 70 hours after the end of the test and continued to rise.

On July 12 during the simultaneous pumping test, the pumps in well C-7B and C-21 were turned off at 11:28 and 11:56, respectively, and the tests on those wells were ended. There was no discernible disruption of the water-level drawdown trend in well C-16 that coincides with the shutdown of either well. In addition, during the

individual pumping test on well C-21 from July 25 through July 28, no discernible water-level drawdown was measured in well C-16 that is attributed to pumping in well C-21.

6.6 WELL C-21

The water level in well C-21 showed some oscillation during the background data collection period, but there was no significant upward or downward trend in water level in the days preceding the start of the simultaneous pumping test. Well C-21 was the first well started as part of the simultaneous pumping test at 11:55 on July 10. The water level in well C-21 prior to the start of pumping was 49.30 ft btoc.

Upon startup of well C-21, the pumping rate was adjusted to 138 gpm using a valve on the discharge line. The pumping rate in well C-21 declined slightly as a result of the loss of pressure head over the pump and was 137 gpm by 23:00 on July 10. On the morning of July 11, a generator malfunction caused well C-21 to shut down at 1:37. The pump in well C-21 was restarted at 2:53, and the pumping rate in well C-21 was 142 gpm following the restart of the pump, then declined to 140 gpm by 8:00 on July 11. The generator in well C-21 malfunctioned several more times on July 11 and 12, causing the pump in the well to shut down. The times for these shut downs are provided in the table for well C-21 in Appendix IV.

On July 12, based on LBG's determined that offsite water-level drawdown was being caused by pumping in well C-7B, it was also determined that well C-7A would likely cause offsite water level drawdown effects when pumped during the planned individual pumping test. Therefore, with the shutdown of well C-7B and the determination that well C-7A should not be pumped, a new best well was needed in order to complete the pumping test program as intended. Based on a yield and available drawdown assessment of the pumping wells, well C-21 was determined to be the suitable replacement for well C-7A as the best well. Therefore, on July 28 at 11:56 pumping in well C-21 was ended and the simultaneous well test continued without further pumping of this well.

The pumping water level in well C-21 just before the end of the test on July 12 was 160.22 ft btoc. Based on a static water level of 49.30 ft btoc, the total drawdown in well C-21 was 110.92 feet.

The water level in well C-21 recovered following shut down of the pump in the well. However, because of interference from nearby well C-23 which continued pumping, the rising water-level trend flattened out on July 14. On July 16 at the end of the simultaneous pumping test on wells C-6, 12, 14, 16 and 23, the water level in well C-21 was 98.89 ft btoc. Based on this water level and the static water level of 49.30, the drawdown in well C-21 that is attributed to pumping in well C-23 is 49.6 feet.

The individual pumping test on well C-21 was started at 11:44 on July 25. The water level in well C-21 just prior to the start of pumping at 11:43 was 52.11 ft btoc. Upon startup of the test, the pumping rate in well C-21 was adjusted to 173 gpm. As a result of the loss of pressure head over the pump, the pumping rate declined to 163 gpm by 18:00 on July 25. The pumping rate in well C-21 remained at 163 gpm for the duration of the test period with the exception of a brief generator shut down between 13:18 and 13:19 on July 26.

The test on well C-21 was ended at 12:15 on July 28. The pumping water level in well C-21 just prior to the end of the test was 147.85 ft btoc for a total drawdown of 95.74 feet.

The drawdown in well C-21 over the final 6 hours of the pumping test between 6:14 and 12:14 on July 28 was 1.35 feet. This value meets the criteria of demonstrating less than 0.5 foot per 100 feet of available drawdown in the well over the final 6 hours of the test period. However, the trend in the water level was downward during this time, so a 180-day water-level drawdown analysis has been conducted. Based on the projection, after 180 days of continuous pumping in well C-21, the total drawdown is 162.94 feet which corresponds to a water level of 215.04 ft btoc. This leaves approximately 185 feet above the pump setting in the well that was used during the pumping test period, which meets the requirement of maintaining a margin of 5% of the pre-test water column (minimum 47.9 feet) above the pump setting in the well.

The water level in well C-21 recovered following shut down of the pump in the well. The water level reached 90% of the pre-test level approximately 98.5 hours after the end of the test and continued to rise.

6.7 WELL C-23

The water level in well C-23 showed some oscillation during the background data collection period, with a very slight drawdown trend of 0.2 feet over the final two days preceding the start of the simultaneous pumping test. During the staggered start-up period of the simultaneous pumping test on July 10, the pump in well C-21 was started before the start of the pump in well C-23.

The pump in well C-23 was started at 12:59 on July 10, 2017. The water level in well C-23 prior to the start of pumping in any of the onsite wells was 43.15 ft btoc. Just prior to the start of the pump in C-23, the water level in the well was 49.27 ft btoc at 12:58. The decline in water level measured between 11:54 and the start of the pump in well C-23 at 12:59 is the result of pumping in well C-21.

At the start of the test on well C-23, the pumping rate in the well was set at 96 gpm. The pumping rate in well C-23 declined slightly as a result of the loss of pressure head over the pump and by 10:00 on July 11, the pumping rate was 88 gpm. A manual rate increase in well C-23 was conducted at 12:45 on July 12 to increase the rate back to 90 gpm. The pumping rate in well C-23 remained at 90 gpm for the duration of the pumping test period.

During the early portion of the test period, the water-level trend in well C-23 was affected by the pump shutdowns in nearby well C-21, which can be seen in the hydrograph for the well in Appendix IV. After the test on well C-21 was ended on July 12, the water level in well C-23 showed a recovery trend. This trend continued until the evening of July 14 when a slight decline in the water-level trend was observed. The total rise in water level between the shut down in well C-21 on July 12 and the crest of the recovery trend in well C-23 on July 14 was approximately 26.5 feet.

At 1:09 on July 16 the simultaneous pumping test was ended with the shutdown of the pump in well C-14. The pump in well C-23 was shut down at 1:49 on July 16. The final water level in well C-23 just prior to turning

the pump off was 136.65 ft btoc at 1:48. Based on a static water level of 43.15 ft btoc from just before the start of the simultaneous pumping test, the total drawdown in well C-23 was 93.50 feet at the end of the test.

The drawdown in well C-23 over the final 6 hours of the pumping test between 19:09 on July 15 to 1:09 on July 16 was 0.51 foot. This value meets the criteria of demonstrating less than 0.5 foot per 100 feet of available drawdown in the well over the final 6 hours of the test period. However, the trend in the water level was downward during this time, so a 180-day water-level drawdown analysis has been conducted. Based on the projection, after 180 days of continuous pumping in well C-23, the total drawdown is 110.59 feet which corresponds to a water level of 153.74 ft btoc. This leaves approximately 246 feet above the pump setting that was used during the pumping test period, which meets the requirement of maintaining a margin of 5% of the pre-test water column (minimum 47.8 feet) above the pump setting in the well.

The water level in well C-23 recovered following shut down of the pump in the well. The water level reached 90% of the pre-test level approximately 103 hours after the end of the test and continued to rise.

During the individual pumping test on well C-21 from July 25 through July 28, water-level drawdown was again observed in well C-23. The total drawdown in well C-23 at the end of the test on July 28 was 62.6 feet.

7.0 PUMPING TEST YIELD RESULTS

The goal of the Clovewood pumping test program was to demonstrate a minimum yield of twice the average water demand of the project with the best well out of service from the new community, public water-supply source. To achieve this goal, a simultaneous pumping test was conducted on wells C-6, C-12, C-14, C-16 and C-23 between July 10 and July 16, 2017. The five wells were pumped concurrently for 5.5 days and demonstrated pumping rates of 45 gpm, 40.5 gpm, 157 gpm, 50 gpm, and 90 gpm, respectively, for a combined yield from the five wells of 382.5 gpm or 550,800 gallons per day (gpd). This combined yield can support an average water demand of 275,400 gpd.

8.0 DROUGHT CONSIDERATIONS AND GROUNDWATER RECHARGE

An additional assessment of potential severe drought effects on the water levels in the onsite pumping wells has been conducted using information from the 1960's drought in New York State. Based on the precipitation record from the Port Jervis weather station, between 1962 and 1966 the precipitation deficit ranged from 23% to 35% below the long-term normal for the region and cumulatively over the five year period there was a 29% deficit in precipitation.

Below average precipitation conditions have also occurred in New York State over the last five years. The cumulative deficit in precipitation since 2012 has been 13% below the long-term normal, with 2016 being the most severe at 27% below the long-term normal. Therefore, regional conditions were dry when the pumping tests were conducted in July 2017 and pumping test data and the 180-day water-level drawdown projections completed using that data are reflective of the aquifer's response under below-normal, dry conditions.

To assess the effect the 1960's drought had on bedrock groundwater levels, historical information was located for the USGS well RO-18 (411802073593001) near Bear Mountain State Park. This well was selected for comparison because the measurement record encompasses the 1960's drought period, the well has current data for direct comparison to existing conditions, it is within reasonable proximity to the project site, and the well is completed in bedrock. The monthly average depth to water values for RO-18 for 1961 through 1967 and for 2012 through 2017 are provided in the table below.

Year Jan Feb Mar May Jul Oct Nov Apr Jun Aug Sep Dec 17.68 16.71 10.55 13.90 14.99 21.05 21.71 22.72 21.92 1961 16.63 18.87 20.07 21.63 20.63 20.15 18.77 1962 18.87 18.13 13.83 14.15 16.04 17.74 20.07 20.77 23.28 23.74 1963 19.71 18.58 13.55 14.62 17.09 18.38 19.3 20.5 23.26 21.15 23.75 1964 19.96 15.33 14.90 14.37 15.15 17.00 18.45 20.79 25.19 27.81 26.56 1965 24.37 20.52 16.69 16.13 15.87 17.20 19.65 20.78 21.69 20.96 22.65 22.72 21.34 23.08 21.01 18.92 1966 21.25 14.12 15.68 16.57 16.84 19.15 21.91 18.31 1967 15.89 15.29 14.46 14.38 15.41 16.59 17.48 19.00 19.79 20.87 19.95 15.39 18.91 21.05 2012 16.67 17.43 18.80 20.13 20.00 21.82 23.65 24.49 19.51 20.02 2013 16.35 15.97 14.69 16.67 17.68 14.60 17.81 20.95 23.58 25.72 27.60 27.44 2014 22.59 20.05 17.01 14.45 14.34 17.22 19.27 21.63 24.22 25.97 26.54 23.70 2015 21.12 20.47 17.75 14.68 16.47 17.75 19.62 22.59 24.87 25.87 25.94 23.95 2016 19.41 16.51 15.29 17.85 18.69 19.85 22.36 23.65 25.91 28.04 28.59 26.26 2017 23.86 19.31 16.90 13.97 15.45 17.38 19.17 20.82 22.44 24.38

Table 7: Monthly Average Depth to Water in USGS Well RO-18

Current water-level data from well RO-18 has been correlated with water-level data from several onsite monitoring wells (C-7, 10, 11, 17, 19 and 22) collected during the background monitoring period from June 21 through July 9 prior to the start of the pumping tests. These onsite monitoring wells were the first to have the pressure transducers installed and, therefore, had the longest data record for use in comparison. The water levels used in the comparison are provided in the table below.

Table 8: Water Level Data From USGS Well and Onsite Monitoring Wells Used in Comparison

Date	RO-18 Average Daily DTW (ft btoc)	C-7 Average Daily DTW (ft btoc)	C-10 Average Daily DTW (ft btoc)	C-11 Average Daily DTW (ft btoc)	C-17 Average Daily DTW (ft btoc)	C-19 Average Daily DTW (ft btoc)	C-22 Average Daily DTW (ft btoc)
6/21/17	17.77	33.07	20.41	86.48	45.45	22.82	29.57
6/22/17	17.85	33.12	20.43	86.52	45.51	22.86	29.59
6/23/17	17.88	33.01	20.42	86.48	45.39	22.82	29.55
6/24/17	17.98	33.00	20.37	86.44	45.29	22.81	29.55
6/25/17	18.08	33.19	20.47	86.56	45.44	22.91	29.61
6/26/17	18.15	33.27	20.53	86.60	45.51	22.95	29.62
6/27/17	18.21	33.38	20.55	86.68	45.52	22.99	29.64
6/28/17	18.31	33.53	20.60	86.84	45.59	23.05	29.68
6/29/17	18.37	33.55	20.64	86.97	45.62	23.09	29.70
6/30/17	18.42	33.57	20.62	87.01	45.58	23.10	29.71
7/1/17	18.49	33.64	20.62	87.07	45.58	23.12	29.72
7/2/17	18.55	33.70	20.65	87.18	45.65	23.20	29.76
7/3/17	18.62	33.88	20.70	87.38	45.73	23.27	29.79
7/4/17	18.71	34.10	20.78	87.62	45.84	23.35	29.84
7/5/17	18.80	34.30	20.86	87.82	45.96	23.44	29.87
7/6/17	18.85	34.32	20.91	87.91	46.04	23.40	29.88
7/7/17	18.87	34.25	20.84	87.86	45.96	23.24	29.85
7/8/17	18.88	34.25	20.75	87.78	45.90	23.22	29.86
7/9/17	18.97	34.47	20.82	87.79	46.07	23.34	29.94

DTW depth to water

ft btoc feet below top of casing

The correlation using the water levels from these six wells with USGS well RO-18 was good, with r-squared values ranging from 0.86 to 0.96. Monitoring wells C-7 and C-22 demonstrated the best correlation with the USGS well, and these two onsite monitoring wells were used in the subsequent calculations to assess water-level change during extreme drought conditions. Copies of the correlation graphs are included in Appendix V.

Using the equations generated from the correlation graphs between RO-18 and the onsite monitoring wells C-7 and C-22, the lowest water-level depths that occurred in RO-18 between 1961 and 1967 were used to calculate the corresponding water-level height that would occur in the two onsite wells. Additionally, present day water-level heights for the onsite monitoring wells were also calculated using the equations for the correlation graphs. The difference between the 1960's values and the 2017 values is a measure of the decline in onsite bedrock groundwater levels that would be expected during drought conditions similar to the 1960's drought. These calculated values are provided in the table below.

Table 9: Analysis of Decrease in Water Level During Drought Conditions

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Lowest Average Monthly Water Level, RO-18 1961-1967											
24.37	21.25	16.69	16.13	17.09	18.38	20.07	21.91	23.75	25.19	27.81	25.56
(1965)	(1966)	(1965)	(1965)	(1963)	(1963)	(1962)	(1966)	(1964)	(1964)	(1964)	(1964)
1960's Average Monthly Water Level For C-7 Calculated Using Correlation Equation											
41.17	37.24	31.50	30.80	32.01	33.63	35.76	38.07	40.39	42.20	45.49	43.92
2017 Average Monthly Water Level For C-7 Calculated Using Correlation Equation											
40.52	34.79	31.76	28.08	29.94	32.37	34.62	36.70	38.74	41.18	NM	NM
Difference Between 2017 and 1960's Water Levels in C-7											
-0.65	-2.45	0.26	-2.72	-2.07	-1.26	-1.14	-1.37	-1.65	-1.01	NM	NM
1960's Average Monthly Water Level For C-22 Calculated Using Correlation Equation											
31.62	30.63	29.18	29.00	29.31	29.72	30.25	30.84	31.42	31.88	32.71	32.32
2017 Average Monthly Water Level For C-22 Calculated Using Correlation Equation											
31.46	30.01	29.24	28.31	28.78	29.40	29.97	30.49	31.01	31.63	NM	NM
Difference Between 2017 and 1960's Water Levels in C-22											
-0.16	-0.62	0.07	-0.69	-0.52	-0.32	-0.29	-0.35	-0.42	-0.26	NM	NM

NM Water-level data for RO-18 from November and December 2017 not yet available, calculation could not be completed.

Based on the above assessment, the difference between 2017 water levels in the month of July when the testing program was conducted and the projected water-level heights from a 1960's magnitude drought in July would be in the range of -0.29 foot to -1.14 feet in the wells at the site. This decline is not anticipated to have a significant impact on the onsite pumping wells.

8.1 GROUNDWATER RECHARGE

Groundwater in a bedrock aquifer is continually being replenished by precipitation on the local watershed. The local recharge area for the Clovewood property has been approximated using the surficial drainage area, the hydrogeologic features and the fracture-trace assessment of the property (figure 2). The size of the local recharge area for the Clovewood property is approximately 1,177 acres.

Some of the precipitation that falls within a watershed infiltrates through the soil zone and percolates downward to recharge the bedrock. Recharge to till-covered metasedimentary bedrock is approximately 400,000 gpd/sq. mi. or about 8 inches annually based on the U.S. Geological Survey open file report 80-437. This is equal to about 625 gpd/acre (gallons per day per acre) of precipitation recharge. For the 1,177 acre watershed for the Clovewood property, the total recharge would be approximately 735,600 gpd (gallons per day) or about 510.8 gpm.

During drought periods groundwater recharge and available water supply would be reduced. The one-year-in-30 low precipitation (3.33% chance of recurrence) for Orange County is 29.5 inches (Appendix III). This precipitation amount is 69% of the annual average precipitation rate of 43 inches or a reduction in precipitation of 31%. This value is similar to the drought values from 1962 to 1966 when the precipitation deficit ranged from 23% to 35% below the long-term normal and cumulatively over the five year period with a deficit of 29%.

Assuming groundwater recharge decreases at the same rate as precipitation during periods of diminished rainfall, the estimated average recharge rate would decrease about 31% to approximately 507,600 gpd during a 1 year-in-30 drought or 352.5 gpm. This drought recharge rate exceeds the average water demand of the proposed 600, four-bedroom units of 183.3 gpm. The drought recharge also exceeds the average water demand of the project with the potential inclusion of swimming pools/bath houses within the development of 190 gpm.

9.0 ONSITE MONITORING WELLS

Water-level measurements were collected from 17 onsite bedrock monitoring wells during the pumping test program conducted on the Clovewood property. In addition, the seven wells pumped during the testing program (C-6, 7B, 12, 14, 16, 21 and 23) were also used as monitoring locations when they were not actively pumping. Water-level data was collected using manual water-level meters and pressure transducers, both vented and unvented type units. In wells where unvented units were utilized, the data was corrected for barometric pressure changes using data recorded on a barotroll installed on the Clovewood site. Occasional spikes in the unvented unit data occur where the transducers were pulled from the wells to be downloaded. These spikes have been removed from the hydrographs to avoid confusion in the data interpretation.

The table below shows an assessment of the distance and drawdown values for the onsite wells measured.

Table 10: Drawdown Measured in the Onsite Monitoring Wells During the 72-Hour Pumping Tests

Well ID	Approximate Distance to Well C-7B (feet)	Drawdown Attributed to Pumping Well C- 7B During Simultaneous Pumping Test (feet)	Approximate Distance to Closest Pumping Well (C-6, 12, 14, 16, or 23) During Simultaneous Pumping Test (feet)	Drawdown Attributed to Pumping in Wells C- 6, 12, 14, 16, and 23 at End of Simultaneous Pumping Test (feet)	Approximate Distance to Well C-21 (feet)	Drawdown Attributed to Pumping Well C-21 During Simultaneous Pumping Test (feet)	
C-6	3,160	ND		121.7	3,060	ND	
C-7B		45.0	1,590 (12)	ND	5,430	ND	
C-12	1,590	ND		88.4	4,740	ND	
C-14	3,360	ND		121.4	2,630	ND	
C-16	2,390	ND		177.2	3,060	ND	
C-21	5,430	ND	600 (23)	49.6		93.5	
C-23	5,490	ND		93.5	600	62.6	
C-1	1,320	1/	690 (12)	4.8	5,400	ND	
C-4	970	<u>1/</u>	680 (12)	3.2	4,770	ND	
C-5	1,420	<u>1/</u>	2,040 (6)	3.6	4,820	ND	
C-7	280	33.0	1,300 (12)	ND	5,340	ND	
C- 7A	40	44.5	1,620 (12)	ND	5,440	ND	
C-8	2,060	<u>1/</u>	1,750 (6)	3.7	4,730	ND	
C-9	1,420	<u>1/</u>	2,020 (6)	3.6	4,820	ND	
C-10	3,130	0.7	870 (6)	0.8	3,880	ND	
C-11	2,470	0.6	1,100 (6)	0.6	4,130	ND	
C-13	1,310	<u>1/</u>	330 (12)	5.7	4,980	ND	
C- 14A	3,360	ND	10 (14)	120.7	2,620	ND	
C-15	3,720	ND	1,010 (14)	30.8	1,790	ND	
C-17	2,880	ND	940 (16)	29.9	2,990	ND	
C-18	3,740	ND	970 (14)	20.9	1,780	ND	
C-19	2,740	ND	1,350 (12)	22.3	3,640	ND	
C-20	4,520	ND	1,390 (23)	11.7	1,020	15.8	

Well ID	Approximate Distance to Well C-7B (feet)	Drawdown Attributed to Pumping Well C- 7B During Simultaneous Pumping Test (feet)	Approximate Distance to Closest Pumping Well (C-6, 12, 14, 16, or 23) During Simultaneous Pumping Test (feet)	Drawdown Attributed to Pumping in Wells C- 6, 12, 14, 16, and 23 at End of Simultaneous Pumping Test (feet)	Approximate Distance to Well C-21 (feet)	Drawdown Attributed to Pumping Well C-21 During Simultaneous Pumping Test (feet)
C-22	4,390	ND	1,260 (6)	44.4	2,940	ND

ND none discernible

1/ Level of drawdown effect from well C-7B could not be quantified from available data.

During the simultaneous pumping test conducted July 10 through July 16, water-level drawdown was measured to varying degrees in all of the onsite monitoring wells. Because of water-level drawdown that was also observed in several offsite monitoring locations, well C-7B was shut down on July 12, and well C-21 was also shut down so that it could be tested as the best well during the individual pumping test as described above. Following the shutdown of wells, water-level recovery was observed in several of the onsite wells and all of the effected offsite monitoring locations.

Using additional water-level information collected during the individual test conducted on well C-21 (July 25 through July 28), the recovery in water level observed in several of the onsite monitoring wells on July 12 can be assigned to either effects from pumping in well C-7B or C-21. The drawdown that has been attributed to C-7B is provided in the table above. In instances where only an inflection occurred in the water level at the time of the well pump shutdown in C-7B, the occurrence of the inflection is noted but the amount of drawdown attributed to well C-7B pumping has not been quantified. The drawdown values observed as result of pumping well C-7B and an approximated area of influence for the well is also shown on figure 4.

After the shutdown of wells C-7B and C-21 on July 12, the simultaneous test continued with wells C-6, 12, 14, 16 and 23 pumping until the morning of July 16. The drawdown caused by these five wells pumping simultaneously measured at the end of the test period on July 16 in the onsite monitoring wells ranged from none discernible in wells C-7, 7A and 7B to 120.7 feet in monitoring well C-14A. The drawdown values measured at the end of the simultaneous test on July 16 and an approximated area of influence for the wells pumping simultaneously is shown on figure 5.

The individual pumping test on well C-21 was conducted from July 25 through July 28. Water-level drawdown was observed in only two onsite monitoring wells, wells C-20 and C-23. The drawdown measured onsite ranged from none discernible to 62.6 feet in well C-23. The drawdown values measured at the end of the individual test on July 28 and an approximated area of influence for well C-21 is shown on figure 6.

OFFSITE MONITORING WELLS AND SPRING **ON ROUTE 208**

Prior to the initiation of the pumping tests, permission to conduct well monitoring was requested from nine residential property owners, one business, four community water-supply systems and one school near the Clovewood property. The table below summarizes the responses received.

Table 11: Summary of Offsite Well Monitoring Program Solicitation

Property	Property Response	
556 Clove Road	Declined Participation in Well Monitoring Program	
562 Clove Road	Agreed to Participation in Well Monitoring Program	
564 Clove Road	Agreed to Participation in Well Monitoring Program	
568 Clove Road	Agreed to Participation in Well Monitoring Program	
443 Clove Road	Declined Participation in Well Monitoring Program	
479 Clove Road	Agreed to Participation in Well Monitoring Program	
481 Clove Road	Agreed to Participation in Well Monitoring Program	
1235 Route 208	Agreed to Participation in Well Monitoring Program	
35 Round Hill Road	Agreed to Participation in Well Monitoring Program	
1195 Route 208	Agreed to Participation in Well Monitoring Program	
Mountain Lodge Water System	Agreed to Participation in Well Monitoring Program	
Woodbury Heights Water System	Agreed to Participation in Well Monitoring Program	
Village of South Blooming Grove Water System	Agreed to Participation in Well Monitoring Program	
Braeside Water System	Did Not Provide LBG Authorization to Access Wells	
Round Hill Elementary School	No Response Was Provided to Inquiry	

In total, water-level measurements were collected from 16 offsite wells (where permission from the owner was granted) and a flowing spring located on Route 208 during the pumping test program conducted on the Clovewood property in July 2017. Water-level data was collected using dedicated, vented pressure transducers installed in the wells and a 5-gallon volume calibrated bucket was used to measure the flow at the spring. Copies of the hydrographs for the offsite wells and spring are included in Appendix VII along with tables containing the manual measurements collected at each monitoring location.

During the simultaneous pumping test, water-level drawdown was observed in four of the residential wells that were being measured on Clove Road, in Mountain Lodge Well 2, and a decrease in flow was measured in the spring located on Route 208. Because of the staggered start of the pumping wells on the first day of the test, the cause of the drawdown was attributed to pumping in well C-7B. Based on this assessment, wells C-7B and C-21 were shut down on July 21, as described above. The water levels in the effected offsite wells began to rise following shut down of well C-7B and the flow at the spring returned.

The remaining test wells C-6, 12, 14, 16, and 23 continued to pump as part of the simultaneous pumping test until the morning of July 16 when the test was ended. Following shut down of these wells, no change in the rising trends in the recovering offsite wells or in the spring were observed that would indicate any further pumpingrelated effects from the balance of the wells being tested.

No discernible water-level drawdown was observed in the other offsite wells being measured as a result of pumping well C-7B or the remaining tested wells C-6, 12, 14, 16, 21 and 23, which included all of the Village of South Blooming Grove wells, the Woodbury Heights wells, Mountain Lodge Well 1, the residence and business on Route 208, the residence on Round Hill Road, and the residence at 479 Clove Road.

The table below contains a summary of the drawdown observed as a result of pumping well C-7B and the distance of the offsite monitoring locations from well C-7B. Additionally, the table shows the distance from the offsite monitoring locations to the next closest onsite well included in the simultaneous test (C-6, 12, 14, 16 or 23).

Table 12: Distance and Drawdown Measurements for Offsite Wells for Simultaneous Pumping Test

Well Location	Approximate Distance to Well C-7B (feet)	Drawdown Attributed to Pumping Well C-7B During Simultaneous Pumping Test (feet)	Approximate Distance to Closest Pumping Well (C-6, 12, 14, 16, or 23) From Simultaneous Pumping Test (feet)	Drawdown Attributed to Pumping in Wells C-6, 12, 14, 16, and 23 at End of Simultaneous Pumping Test (feet)
562 Clove Road	1,600	24.5	2,850 (6)	ND
564 Clove Road	1,700	24.0	2,700 (6)	ND
568 Clove Road	1,850	5.7	2,500 (6)	ND
479 Clove Road	2,150	ND	1,900 (12)	ND
481 Clove Road	2,050	6.8	1,650 (12)	ND
1195 Route 208	3,750	ND	2,350 (6)	ND
1235 Route 208	3,550	ND	4,500 (6)	ND
Spring on Route 208	2,650	Dry	2,600 (6)	ND
35 Round Hill Road	3,000	ND	4,000 (12)	ND
Mountain Lodge Well 1	7,100	ND	6,000 (12)	ND
Mountain Lodge Well 2	6,850	4.5	5,750 (12)	ND
Woodbury Heights North Well	8,250	ND	3,100 (23)	ND
Woodbury Heights East Well	8,600	ND	3,450 (23)	ND
Village of South Blooming Grove Merriewold Well Field Well 1	6,900	ND	4,850 (6)	ND
Village of South Blooming Grove Merriewold Well Field Well 3	6,700	ND	4,700 (6)	ND
Village of South Blooming Grove Well 8	9,000	ND	7,050 (6)	ND
Village of South Blooming Grove Baseball Field Well	9,000	ND	7,150 (6)	ND

ND none discernible

Following the completion of the simultaneous pumping test, the water-levels in the aquifer were allowed to recovery for approximately nine days before the start of pumping in well C-21 for the individual pumping test. The water-level recovery in the offsite wells and spring that were influenced by pumping of well C-7B continued during this recovery period until approximately July 23-24 when the rising trends ended.

The measurement of the offsite monitoring locations continued during the pumping test conducted on well C-21. During the pumping test on C-21, no discernible drawdown effects were observed in any of the offsite monitoring locations that is attributed to pumping in well C-21. The absence of discernible drawdown in the offsite monitoring locations during the test on C-21 confirms that the drawdown measured during the first testing period was related to pumping in well C-7B. The table below contains a summary of the distance of the offsite monitoring locations from C-21 and that no discernible drawdown was observed.

Table 13: Distance and Drawdown Measurements for Offsite Wells for Simultaneous Pumping Test

Well Location	Approximate Distance to Well C-21 (feet)	Drawdown Attributed to Pumping in Well C-21 at End of Individual Pumping Test (feet)
562 Clove Road	5,750	ND
564 Clove Road	5,600	ND
568 Clove Road	5,450	ND
479 Clove Road	6,650	ND
481 Clove Road	6,400	ND
1195 Route 208	5,250	ND
1235 Route 208	7,550	ND
Spring on Route 208	5,650	ND
35 Round Hill Road	8,400	ND
Mountain Lodge Well 1	9,450	ND
Mountain Lodge Well 2	9,150	ND
Woodbury Heights North Well	2,900	ND
Woodbury Heights East Well	3,250	ND
Village of South Blooming Grove Merriewold Well Field Well 1	7,000	ND
Village of South Blooming Grove Merriewold Well Field Well 3	6,900	ND
Village of South Blooming Grove Well 8	8,950	ND
Village of South Blooming Grove Baseball Field Well	9,150	ND

ND none discernible

11.0 PIEZOMETERS

Water-level measurements were collected from piezometers installed in surface-water features at eight locations on the site. The piezometer locations are shown on Plate 1. Manual water-level measurements were collected from the piezometers and vented pressure transducers installed at select locations. The piezometer monitoring locations were placed in surface-water features that parallel the fracture-trace lineations near the pumping wells on the project site. The locations were selected close to the seven pumping wells where drawdown (if any were to occur) would most likely be measureable. An additional eighth piezometer monitoring location was installed near monitoring well C-22.

Where surface water was present, a single piezometer was installed. Groundwater level measurements were collected from the interior of the piezometer and surface-water height measurements from the exterior to assess potential water-level drawdown and changes in vertical head. At locations where no surface water was present or the presence of surface water was sporadic, a nested pair of piezometers was installed, with one shallower screen and one deeper screen setting. Groundwater level measurements were collected from the interior of both nested piezometers, and when present, surface water on the exterior was measured to assess potential water-level drawdown and changes in vertical head. Hydrographs for the piezometers along with tables of the manual water-level measurements collected are included in Appendix VIII.

The piezometers were constructed with 5-foot lengths of galvanized steel pipe; 3-inch long couplings; and 1-foot long, 10-slot screened, stainless steel drive points. The piezometers were driven to varying depths based on the height of the surface water, the depth to groundwater at each location, and the composition of the overburden soils and sediment (i.e. whether large cobbles were present). The depths to the top of the screen for the piezometers are provided in the table below.

Depth to Top of Screen Piezometer ID (feet below grade) PZ-1 Shallow: 3.07; Deep: 4.65 PZ-5 Single Piezometer: 1.48 Shallow: 2.10; Deep: 3.30 PZ-6 PZ-8 Single Piezometer: 2.12 PZ-9 Shallow: 1.77; Deep: 3.93 PZ-16 Shallow: 2.44; Deep: 4.25 PZ-Pond Single Piezometer: 1.66 PZ-22 Shallow: 0.85; Deep: 1.95

Table 14: Piezometer Screen Settings

11.1 PIEZOMETER LOCATION PZ-1

A nested pair of piezometers was installed at location PZ-1 in the stream channel near pumping well C-12. Surface water on the exterior of the piezometers was present only sporadically during the data collection period, after the rain event on July 13 and again after the rain event on July 24. Groundwater level measurements were

collected from the interior of both piezometers to assess potential drawdown and changes in vertical head as a result of pumping in the onsite wells.

In general, the water levels in the piezometer had a declining trend during the test period. However, the water level in the shallow screened piezometer increased following rain events on July 7, July 8, July 13, July 14 and July 24. The rain events on July 11 and July 20 also appear to have temporarily reduced the rate of decline in the groundwater level in the shallow piezometer. The groundwater in the deeper screened piezometer also rose in response the rain events on July 7, July 13 and July 24; however, the rising response was more muted compared to the shallow screened piezometer.

The vertical head direction between the shallow and deeper screen piezometers was upward with the exception of during and immediately following the rain events when the direction head reversed to downward. The downward head lasted approximately one to two days, and then reverted to an upward head. When surface water was present on the exterior of the PZ-1 piezometers after rain events, the head direction between surface water and groundwater was downwards.

PZ-1 Simultaneous Pumping Test

Prior to the start of the simultaneous pumping test, the water levels in the shallow and deeper screened piezometers had a declining trend beginning on July 9. This declining water-level trend continued into the pumping period until the July 13 rain event. This rain event caused a rise in water level in both piezometers and a change in head direction from upward to downward. After the rain event, the water-level trends in the piezometers leveled out and then resumed a declining trend on July 16 after the end of the simultaneous pumping test.

Prior to the rain event on July 13, the water levels and vertical head between the shallow and deeper screened piezometers did not appear to be affected as a result of pumping in the onsite wells. Additionally, although the precipitation caused an increase in the water levels in both piezometers during the second half of the simultaneous pumping test, there was no significant rise or rebound in water level resulting from the shutdown of the pumping wells on the morning of July 16.

Based on the data collected, there does not appear to be impact to the piezometers at PZ-1 as a result of pumping during the simultaneous pumping test.

PZ-1 Individual Pumping Test

The declining trend observed in the water levels in both piezometers which started on July 16 continued until the rain event on July 20 which caused a decrease in the declining trend. The subsequent rain event on July 24 caused the water levels in both the shallow and deeper screened piezometers to rise. The rain event on July 24 also caused a temporary change in head direction from upward to downward. The water-level rise in the shallow piezometer was steep but brief and the declining trend in this piezometer resumed the same day. The vertical head direction reverted back to upward late in the day on July 25. The rising trend in the deeper screened piezometer was slightly more muted and took longer to crest than in the shallow screened piezometer. The water level in the

deeper screened piezometer crested on July 25, near the start of the individual test on well C-21 and then resumed a declining trend.

The water levels in both piezometers continued their declining trends throughout the remainder of the test period on well C-21 and into the recovery period following the end of the test. There was no rise in water level in either piezometer that coincided with the shutdown of the pump in well C-21.

Based on the data collected, there does not appear to be impact to the piezometers at PZ-1 as a result of pumping during the individual pumping test.

11.2 PIEZOMETER LOCATION PZ-5

A single piezometer was installed at the location PZ-5 in the stream channel pumping well C-6. Surface water was present on the exterior of the piezometer throughout the data collection period. The groundwater level was measured in the interior of the piezometer and surface-water height on the exterior.

The water levels at piezometer PZ-5 remained relatively consistent throughout the data collection period in both the surface water and groundwater with the exception of brief rises in response to rain events on July 7, July 13, July 14, July 20 and July 24.

PZ-5 Simultaneous Pumping Test

The water levels in the groundwater and surface water had a very slight declining trend which began on July 7 after the end of the rain event, prior to the start of the simultaneous pumping test. This declining water-level trend continued into the pumping period until the July 13 rain event. This rain event caused a rise in water level in both the surface water and groundwater levels. On July 14 after the rain event, the water-level trends at the piezometer resumed a decline which continued into the post-test period.

The vertical head direction between the interior and exterior water levels changed between upward, neutral and downward frequently throughout the background, pumping and recovery periods. Head values ranged from -0.05 to 0.08, therefore, very small changes in water level had an effect on the vertical head direction. The head changes were variable and occurred during all portions of the data collection period and do not appear to be related to pumping in the onsite wells.

Prior to the rain event on July 13, the water levels showed no discernible change in trend as a result of pumping in the onsite wells or when the pumps in wells C-7B and C-21 were shut down on July 12. Additionally, there was no discernible rebound in water level accompanying the shutdown of the pumping wells on the morning of July 16.

Based on the data collected, there does not appear to be impact to the piezometer at PZ-5 as a result of pumping during the simultaneous pumping test.

PZ-5 Individual Pumping Test

The declining trend in the water levels at PZ-5 continued until July 17 when the trend leveled out. A rain event on July 20 caused a slight rise in water level and the rain event on July 24 caused a larger water-level rise in both the groundwater and surface water.

The slight declining trend in the groundwater and surface water levels resumed after the rain event ended on July 24 and continued throughout the test period on well C-21 and into the recovery period following the end of the test. There were no changes in the water-level trends in the surface water or groundwater at PZ-5 that coincided with the shutdown of the pump on well C-21 that would indicate pumping-related effect. Similar to the simultaneous pumping test period, the vertical head direction between the interior and exterior water levels changed between upward, neutral and downward frequently throughout the background, pumping and recovery periods. The range in head values was very small from -0.02 to 0.02; therefore, very small changes in water level had an effect on the vertical head direction. The head changes were variable and occurred during all portions of the data collection period and do not appear to be related to pumping in well C-21.

Based on the data collected, there does not appear to be impact to the piezometers at PZ-5 as a result of pumping during the individual pumping test.

11.3 PIEZOMETER LOCATION PZ-6

A nested pair of piezometers was installed at location PZ-6 in the stream channel near pumping well C-14. Surface water was also present on the exterior of the piezometers during the data collection period. Groundwater level measurements were collected from the interior of both piezometers and the surface-water height was measured on the exterior.

In general, the groundwater level in the shallow piezometer and the surface water had declining trends during the testing period. The water levels in the shallow screened piezometer and surface water increased following rain events on July 7, July 13, July 14, and July 24. After each rain event, the groundwater level in the shallow screened piezometer and surface water resumed a declining trend. The groundwater in the deeper screened piezometer was on a rising trend throughout the data collection period, and was not notably affected by the individual rain events that occurred.

The vertical head directions between the shallow and deeper screen piezometers and the surface water and deeper screened piezometer were downward through most the data collection period, but steadily decreased because of the consistent upward trend in the groundwater level in the deeper screened piezometer. On July 29, the vertical head direction between the shallow and deeper screened piezometer became neutral and then upward as the deeper groundwater level continued to rise. The vertical head between the deeper groundwater and surface water remained downward during this timeframe.

The vertical head between the groundwater level in the shallow screened piezometer and the surface water was mainly downward, with the exception of a period following the rain event on July 14 when the head direction changed to upward as the shallow groundwater took longer to resume a downward trend than the surface water.

PZ-6 Simultaneous Pumping Test

The groundwater level in the shallow piezometer and surface water had slight declining trends which began prior to the start of the simultaneous pumping test. These declining water-level trends continued into the pumping period until the July 13 rain event. This rain event caused a rise in water level in both the surface water and shallow groundwater and a brief change in head direction from downward to upward. On July 14 after the rain event, the water-level trends in the shallow groundwater and surface water resumed a declining trend which continued into the post-test period and the vertical head returned to downward.

Prior to the rain event on July 13, the groundwater levels in both piezometers and the surface water, as well as the vertical head between the groundwater and surface water showed no discernible change in trend as a result of pumping in the onsite wells or when the pumps in wells C-7B and C-21 were shut down on July 12. Additionally, although the precipitation caused an increase in the water levels in the shallow groundwater and surface water during the second half of the simultaneous pumping test, there was no discernible rebound in water level accompanying the shutdown of the pumping wells on the morning of July 16. The water level in the deeper screened piezometer was on a slight rising trend, and showed no response to rain events or the start and stop of pumping.

Based on the data collected, there does not appear to be impact to the piezometers at PZ-6 as a result of pumping during the simultaneous pumping test.

PZ-6 Individual Pumping Test

The declining trend in the water levels in the shallow groundwater and surface water continued until the rain event on July 24 caused the water levels to rise. Immediately after the rain event, the surface-water level trend resumed a decline on July 24. In the shallow groundwater, the trend was level until the decline resumed on July 26. The slight declining trends in both the shallow groundwater and surface water continued into the post-test period.

The vertical head between the surface water and shallow groundwater remained downward throughout the pumping test and recovery period. The vertical head direction between the shallow groundwater and the deeper groundwater became neutral on July 29 and then upward as the deeper groundwater continued its steady upward trend.

No rebound in water level in either piezometer or in the surface water coinciding with the shutdown of the pump on well C-21 occurred that would indicate pumping-related effects.

Based on the data collected, there does not appear to be impact to the piezometers at PZ-6 as a result of pumping during the individual pumping test.

11.4 PIEZOMETER LOCATION PZ-8

A single piezometer was installed at the location PZ-8 in surface water near pumping well C-21. Surface water was present on the exterior of the piezometer throughout the data collection period. The groundwater level was measured in the interior of the piezometer and surface-water height on the exterior.

The surface-water level at piezometer PZ-8 remained relatively consistent throughout the data collection period with the exception of brief rises in response to rain events on July 7, July 13, July 14, and July 24. Compared to other onsite surface-water locations that were measured, the increases in the height of the surface water at PZ-8 were muted and after the rain events ended, the surface-water level quickly returned to its prior elevation.

The groundwater level in the piezometer was on a general downward trend during the data collection period, which was also interrupted by the rain events listed above. The rise in groundwater level was generally small, but took approximately one to two days to re-equilibrate and return to its prior downward trend.

The surface data on the hydrograph for PZ-8 in Appendix VIII shows an anomaly in the pressure transducer readings starting on July 24 during the rain event. The pressure transducer recorded erroneous data showing a large decrease, then an increase in water level which did not actually occur. The anomalous data recording ended on July 25, and the transducer returned to recording reasonable values. The manual measurements collected on July 24 and 25 are reflective of the actual surface-water height on those days.

PZ-8 Simultaneous Pumping Test

After the rain event on July 7, there was little groundwater level change until July 9 when a slight declining trend started. This declining trend continued into the simultaneous test period and steepened slightly on July 12 as the test progressed. On July 13, the groundwater level rose in response to the rain event. Another rise occurred in July 14 because of rain and then the declining trend resumed.

The vertical head direction was upward between the surface water and groundwater throughout the background, pumping and recovery periods for the simultaneous pumping test. However, the decline in the groundwater level which started during the background period and the relatively unchanging height of the surface water resulted in decreasing vertical head values during this period.

The steepening of the declining trend in the groundwater level during the simultaneous pumping test was noteworthy. However, the steepening does not coincide with the start of pumping (it occurred approximately 48 hours into the test period) and when the pump in the nearby well C-21 was shut down (on July 12), no change in the trend occurred. Similarly, there was no notable rebound in water level accompanying the shutdown of the remaining pumping wells on July 16. Based on these data, the declining trend observed in PZ-8 may be naturally occurring, but additional monitoring of the shallow groundwater at this location may be warranted for further assessment. The steepening in groundwater declining trends was also observed in the piezometers at PZ-9, which were located in the same upland setting as PZ-8. The steepening at PZ-9 is attributed to natural groundwater trends

because the phenomena took place under non-pumping and pumping conditions. The water-level response in PZ-9 is described in more detail below.

No discernible effect to surface water was measured during the simultaneous pumping test.

PZ-8 Individual Pumping Test

The decline in the groundwater level at PZ-8 continued into the post-test period until July 17 when the trend leveled. The rain event on July 24 caused a slight rise in both the groundwater and surface water. After the July 24 rain event, the surface water height stayed relatively steady. The groundwater level in the piezometer continued rising slightly until the morning of July 26, when a declining trend was observed. The downward trend in the groundwater level and the steady trend in the surface water level resulted in a change in vertical head direction on July 27 from upward to downward.

At the end of the pumping test on July 28, the declining trend in the groundwater in PZ-8 continued but decreased in intensity. Additional monitoring of the shallow groundwater at this location may be warranted to further assess whether the change in groundwater was the result of pumping or whether it was naturally occurring.

No discernible effect to the surface water at this location was measured during the individual pumping test.

11.5 PIEZOMETER LOCATION PZ-9

A nested pair of piezometers was installed at location PZ-9 in the stream channel that forms north of well C-23. No measurable surface water was present on the exterior of the piezometers during the data collection period. Groundwater level measurements were collected from the interior of both piezometers.

In general, the water levels in the piezometers had a declining trend throughout the testing period. The water level in the shallow screened piezometer increased following rain events on July 7, July 13, July 14, July 17, July 20 and July 24. After each rain event, the groundwater level in the shallow screened piezometer resumed a declining trend. The groundwater in the deeper screened piezometer also rose in response to the rain events; however, the rising response was more muted compared to the water-level response observed in the shallow screened piezometer. The vertical head direction between the shallow and deeper screen piezometers was downward throughout most of the data collection period with the exception of on July 5 and 6, before the rain event on July 7 that caused a change in vertical head direction; and again from July 28 through 31.

The water-level data for the shallow screened piezometer on the hydrograph for PZ-9 in Appendix VIII shows an anomaly in the pressure transducer readings on July 13 and 14 during the rain events. The pressure transducer recorded erroneous data that showed increases and decreases in water level which did not actually occur. The anomalous data recording stopped late in the day on July 14, and the transducer returned to recording reasonable values. The manual measurements collected during that time period are reflective of the actual water levels on those days.

PZ-9 Simultaneous Pumping Test

The water levels in the shallow and deeper screened piezometers had a declining trend which began during the background data collection period prior to the start of the simultaneous pumping test. This declining trend continued into the pumping period until the rain event occurred on July 13, causing a rise in both piezometer water levels.

A slight steepening of the declining water-level trend occurred on July 12; however, a similar steepening occurred on July 21 during a period of no onsite pumping indicating that this response may be a natural occurrence for groundwater levels at this location. After the rain events on July 13 and 14, the water-level trends in the piezometers leveled out and then resumed a decline on July 15.

Prior to the rain event on July 13, the water levels and vertical head between the piezometers did not appear to be affected as a result of pumping in the onsite wells or when the pumps in wells C-7B and C-21 were shut down on July 12. Additionally, although the precipitation caused an increase in the water levels in both piezometers during the second half of the simultaneous pumping test, there was no significant rebound or change in trend in the water levels accompanying the shutdown of the pumping wells on the morning of July 16.

Based on the data collected, there does not appear to be impact to the piezometers at PZ-9 as a result of pumping during the simultaneous pumping test.

PZ-9 Individual Pumping Test

The declining trend in the water levels in both piezometers resumed on July 15 and continued until the rain event on July 24, with the exception of a very small rise observed on July 20 from the rain received on that day. As described above, the declining trend in the piezometers steepened after the rain event on July 20 and continued until the larger rain event on July 24. The water level in the shallow piezometer rose rapidly and the rise in the deeper piezometer was slower. The rise in the shallow piezometer crested on July 24 and then the drawdown trend resumed. The rise in the groundwater level in the deeper piezometer crested on July 27 and then resumed declining. Because of this delay, the vertical head direction between the shallow groundwater and deeper groundwater changed from downward to upward on July 28.

The declining trend pattern observed during the individual pumping test period and the post-test period is similar to the pattern observed during the background period between July 20 and July 24, and the head change also appears to be precipitation related and not the result of pumping.

Based on the data collected, there does not appear to be impact to the piezometers at PZ-9 as a result of pumping during the individual pumping test. However, if additional monitoring at PZ-8 is conducted, additional data collection from PZ-9 may be warranted to provide supplemental information since both piezometer locations are in the same upland setting area.

11.6 PIEZOMETER LOCATION PZ-16

A nested pair of piezometers was installed at location PZ-16 in the wetland feature flagged near well C-16. There was no surface water present on the exterior of the piezometers throughout the data collection period. Groundwater level measurements were collected from the interior of both piezometers to assess potential drawdown and changes in vertical head as a result of pumping in the onsite wells.

The water levels in the piezometers rose in response to the rain events on July 13, July 14 and July 24. However, the rising responses had a slight delay and were more muted compared to other onsite piezometers measured during the test. The vertical head direction between the shallow and deeper screen piezometers was downward throughout the entire data collection period.

PZ-16 Simultaneous Pumping Test

The water levels in the shallow and deeper screened piezometers had declining trends which began on July 7, prior to the start of the simultaneous pumping test. These declining water-level trends continued into the pumping period until the July 13 rain event. This rain event caused a rise in water level in both piezometers. After the rain event, the water-level trends in the piezometers leveled out and then resumed a decline on July 17 after the end of the simultaneous pumping test.

Prior to the rain event on July 13, the water levels and vertical head between the piezometers did not appear to be affected as a result of pumping the onsite wells or when the pumps in wells C-7B and C-21 were shut down on July 12. Additionally, although the precipitation caused an increase in the water levels in both piezometers during the second half of the simultaneous pumping test, there was no significant rebound in water levels after the shutdown of the pumping wells on the morning of July 16. Based on the water-level data collected, there does not appear to be impact to the piezometers at PZ-16 as a result of pumping during the simultaneous pumping test.

PZ-16 Individual Pumping Test

The declining trend in the water levels in both piezometers which started on July 16 continued until the rain event on July 24. The rain event caused the water levels in both the shallow and deeper screened piezometers to rise briefly. The change in trend was short and the shallow and deeper screened piezometers resumed their declining trends which continued throughout the test period on well C-21 and into the recovery period following the end of the test. No rebound in water levels in either piezometer coinciding with the shutdown of the pump on well C-21 occurred. Based on the data collected, there does not appear to be impact to the piezometers at PZ-16 as a result of pumping during the individual pumping test.

11.7 PIEZOMETER LOCATION PZ-POND

A single piezometer was installed at the location PZ-Pond in the pond east of wells C-7B and C-7A. Surface water was present on the exterior of the piezometer throughout the data collection period. The groundwater level was measured in the interior of the piezometer and surface-water height on the exterior.

Overall, water levels at piezometer PZ-Pond were on a slight declining trend throughout the data collection period in both the surface water and groundwater with the exception of brief rises in response to rain events on July 7, July 13, July 14 and July 24. After the rain events ended, the water levels resumed their prior trends.

PZ-Pond Simultaneous Pumping Test

Prior to the start of the simultaneous pumping test, the water levels in the groundwater and surface water had a slight declining trend which began on July 8. This declining water-level trend continued into the pumping period until the morning of July 11. The water level in the surface water and groundwater in PZ-Pond began to rise slowly. A small rain event occurred on the morning of July 11 which may have contributed to this rise, but a leak in the well C-7B discharge hose along the edge of the pond was likely the main reason for the rise. The leak was repaired later that day and the declining water-level trends resumed. The rain events on July 13 and 14 also caused water level rises, followed by the resumption of the natural declining trend. No change in the declining trend was noted when the pump was shut down in well C-7B on July 12 or when the simultaneous pumping test was ended on July 16.

The vertical head difference between the interior and exterior water levels was small, ranging in value from -0.04 to 0.12 and changed direction between upward, neutral and downward relatively frequently. The head direction changes were variable and occurred during all portions of the data collection period and do not appear to be related to pumping the onsite wells.

Based on the data collected, there does not appear to be impact to the piezometer at PZ-Pond as a result of pumping during the simultaneous pumping test.

PZ-Pond Individual Pumping Test

The declining trend in the water levels at PZ-Pond continued into the post-test period until the rain event on July 24 caused a larger water-level rise in both the groundwater and surface water. The declining trend in the groundwater and surface water levels resumed after the rain event ended on July 24 and continued throughout the test period on well C-21 and into the recovery period following the end of that test. No change in the water-level declining trend was observed with the shutdown of the pump in well C-21.

The vertical head difference between the interior and exterior water levels was small, ranging in value from -0.03 to 0.10 and changed head direction relatively frequently. The head changes were variable and occurred during all portions of the data collection period and do not appear to be related to pumping in well C-21.

Based on the data collected, there does not appear to be impact to the piezometer at PZ-Pond as a result of pumping during the individual pumping test.

11.8 PIEZOMETER LOCATION PZ-22

A nested pair of piezometers was installed at location PZ-22 near the onsite monitoring well C-22. There was no surface water present on the exterior of the piezometers throughout the data collection period. Groundwater level measurements were collected from the interior of both piezometers.

The water level in the shallow screened piezometer was variable throughout the data collection period and appears to have responded to the rain events on July 7, July 13, July 14, July 17, July 20 and July 24. The water level in the deeper screened piezometer was less variable, and showed muted responses to the rain events on July 7, July 13, and July 14. The vertical head between the shallow and deeper screen piezometers was upward throughout the entire data collection period.

PZ-22 Simultaneous Pumping Test

The water levels in the shallow and deeper screened piezometers had declining trends which began on July 7, prior to the start of the simultaneous pumping test. These declining water-level trends continued into the pumping period until the July 13 rain event. This rain event caused a brief rise in water level in both piezometers. After the rain event, the water-level trends in the piezometers resumed a decline on July 14.

The water level in the deeper screened piezometer remained on a relatively consistent declining trend throughout the background, testing and recovery periods for the simultaneous pumping test. The water level in the shallow screened piezometer was much more variable, showing more dramatic changes in response to precipitation events, but there are no water-level changes that appear to coincide with the start and stop of pumping on the site.

Based on the data collected, there does not appear to be impact to the piezometers at PZ-22 as a result of pumping during the simultaneous pumping test.

PZ-22 Individual Pumping Test

The declining trend in the water level in the deeper screened piezometer, which started on July 14, continued into the test on well C-21 and through to the end of the data collection period without any further interruption from rain events. The water level in the shallow screened piezometer remained somewhat variable, rising on July 17 and July 24, and then declining through the test and recovery period for well C-21. Although, the water level in the shallow screened piezometer was variable, there were no water-level changes that appear to coincide with the start and stop of pumping in well C-21.

Based on the data collected, there does not appear to be impact to the piezometers at PZ-22 as a result of pumping during the individual pumping test.

12.0 STREAM GAGING

There are two tributary streams that flow from the project site. They both exit the site along the western property boundary close to the intersection of Clove Road and Route 208. The headwaters for both streams originate on the Clovewood property. The more northerly stream flows near pumping wells C-12 and C-7B and collects runoff from the northern and central portions of the project site. A dam was built by a prior property owner on this stream channel near onsite monitoring wells C-5 and C-9. As a result, there is ponded water behind this dam. The stream channel re-forms downstream of the dam and the stream flows west and off the project site. The more southerly stream passes near pumping wells C-6, 14, 21 and 23 and receives runoff from the southern and western portions of the project site.

Stream-flow measurements were collected from nine onsite gaging locations during the pumping test program between July 3 and July 31, 2017. The stream gaging locations SG-1 through SG-9 are shown on plate 1. Graphs and a table of the flow measurements collected are included in Appendix IX. On the graphs, the stream-flow measurements have been separated into two groups, the gaging locations that receive flow from the northern and central portions of the property (SG-1, 2 and 3), and the locations that receive flow from the southern portion of the site (SG-4, 5, 6, 7, 8 and 9).

12.1 STREAM GAGING LOCATIONS SG-1, SG-2 AND SG-3

Stream gaging locations SG-1, SG-2 and SG-3 are located along the stream that collects runoff from the northern and central regions of the property. The gaging locations are numbered in sequential order moving downstream. Location SG-1 is the farthest upstream location, east of well C-12. Location SG-2 is near monitoring well C-4, between pumping wells C-12 and C-7B. SG-3 is located downstream of well C-7B and the pond, near onsite monitoring well C-8. SG-3 was positioned upstream of the discharge locations for wells C-7B and 12.

SG-1

Clovewood Property, Pumping Test Program

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Stream gaging location SG-1 is located upstream of pumping well C-12. Overall, flow at SG-1 was very low during the data collection period, ranging from no measurable flow (0.000 cubic feet per second (cfs)) to 0.008 cfs. These flows are equal to a range of 0 gpm to 3.6 gpm. Slight increases in flow were measured following precipitation events. These flow increases were short-lived, after which the flow would again decrease to very low values. There were no discernible changes in flow that appear related to pumping of the onsite bedrock wells during the pumping test periods.

SG-2

SG-2 is located near onsite monitoring well C-4, downstream of C-12 and upstream of well C-7B. The flows at this location ranged from 0.011 cfs to 0.139 cfs, which are equal to a range of 4.9 gpm to 62.4 gpm. The higher flow values measured at SG-2 compared to SG-1 are reflective of the larger upstream watershed area that contributes more overland runoff and baseflow to SG-2. Similar to SG-1, increases in flow were observed at SG-2 following precipitation events, after which the flow would again decrease to very low values. There were no discernible changes in flow that appear related to pumping of the onsite bedrock wells during the pumping test periods.

SG-3

SG-3 is located near onsite monitoring well C-8, downstream of C-7B and the onsite pond, close to where the stream exits the property. The flows at this location ranged from 0.028 cfs to 0.209 cfs, which are equal to a range of 12.6 gpm to 93.4 gpm. The higher flows at SG-3 compared to SG-1 and SG-2 are reflective of the larger upstream watershed area that contributes more overland runoff and baseflow to SG-3. Similar to the other gaging locations, increases in flow were observed at SG-3 following precipitation events. After precipitation events, the flow at SG-3 would decrease, however the decrease in flow values took slightly longer at SG-3, potentially because of the storage and release of water from the upstream pond along the stream channel which controlled the runoff flow and caused the stream to be less flashy. A flashy stream is one that rapidly collects flows from the steep slopes within its watershed and produces flood peaks soon after a rain event. The flow quickly subsides after the rainfall stops. As noted above for PZ-Pond, there was a break in the discharge line alongside the pond on July 11 which caused a brief rise in water level until the break was repaired. This break in the discharge may have resulted in the high flow value at SG-3 measured on July 12 that was not directly associated with a precipitation event. This flow value decreased after the discharge line was repaired.

There were no discernible changes in flow that appear related to pumping of the onsite bedrock wells during either pumping test period.

SG-1 through SG-3 Flow Comparison

Overall, the stream flow at locations SG-1, 2 and 3 showed an increase in volume as the upstream watershed areas expanded and overland runoff and baseflow increased. The flows were generally low and increased as a result of rain events, after which the flow would again decrease to very low values. However, during the rain event on July 7, the flow at SG-2 was higher than anticipated compared to SG-3 (the downstream location). This change is attributed to the flashy nature of the runoff stream-flow in the channel, and the start and stop time of the rain event versus the time of day the channel was gaged.

The flow values measured at the three locations were similar during the background, pumping test and recovery periods. No discernible changes in flows were observed at SG-1, SG-2 or SG-3 that are attributed to

pumping in the onsite wells during the simultaneous pumping test from July 10 through July 16, 1027 or for the individual pumping test on well C-21 from July 25 through July 28, 2017.

12.2 STREAM GAGING LOCATIONS SG-4, SG-5, SG-6, SG-7, SG-8 AND SG-9

Stream gaging locations SG-4 through SG-9 are located along the stream that flows through the southern and western portions of the property. Location SG-4 is the farthest downstream location, west of pumping wells C-6, C-14, C-21 and C-23. The gaging locations are numbered sequentially moving upstream, with SG-5 located near pumping well C-6, SG-6 near pumping well C-14, SG-7 near onsite monitoring wells C-15 and C-18, SG-8 near pumping well C-21 and SG-9 near pumping well C-23. There were no channels upstream of wells C-21 and C-23 where an upstream gaging location could be sited.

SG-4

Gaging location SG-4 is the farthest downstream of the gaging locations on the southern portion of the site. The flows at SG-4 ranged from 0.022 cfs to 0.374 cfs. These flows are equal to a range of 9.9 gpm to 167.9 gpm. Increases in flow were measured following precipitation events, most noticeably on July 7 during the background period prior to the simultaneous pumping test, July 14 during the simultaneous pumping test and on July 24 prior to the start of the individual pumping test. After the rain events, the flow decreased to very low values. There were no discernible changes in flow at SG-4 that appear related to pumping of the onsite bedrock wells during the pumping test periods.

SG-5

Gaging location SG-5 is located near pumping well C-6. The flows at SG-5 ranged from 0.008 cfs to 0.298 cfs. These flows are equal to a range of 3.6 gpm to 133.7 gpm. Increases in flow were measured following precipitation events. After the rain events, the flow would decrease to very low values. There were no discernible changes in flow at SG-5 that appear related to pumping of the onsite bedrock wells during the pumping test periods.

SG-6

Gaging location SG-6 is located near pumping well C-14. The flows at SG-6 ranged from 0.013 cfs to 0.422 cfs. These flows are equal to a range of 5.8 gpm to 198.4 gpm. Increases in flow were measured following precipitation events. After the rain events, the flow would decrease to very low values. There were no discernible changes in flow at SG-6 that appear related to pumping of the onsite bedrock wells during the pumping test periods.

SG-7

Gaging location SG-7 is located near onsite monitoring wells C-15 and C-18. The flows at SG-7 ranged from 0.002 cfs to 0.209 cfs. These flows are equal to a range of 0.9 gpm to 93.8 gpm. Increases in flow were measured following precipitation events. After the rain events, the flow would decrease to very low values. There were no discernible changes in flow at SG-7 that appear related to pumping of the onsite bedrock wells during the pumping test periods.

SG-8

Gaging location SG-8 is located near pumping wells C-21. The flows at SG-8 ranged from no measureable flow (0.000 cfs) to 0.262 cfs. These flows are equal to a range of 0.0 gpm to 117.6 gpm. Increases in flow were measured following precipitation events. After the rain events, the flow would decrease to very low values. There were no discernible changes in flow at SG-8 that appear related to pumping of the onsite bedrock wells during the pumping test periods.

SG-9

Gaging location SG-9 is located near pumping wells C-23. The flows at SG-9 ranged from no measureable flow (0.000 cfs) to 0.118 cfs. These flows are equal to a range of 0.0 gpm to 53.0 gpm. Increases in flow were measured following precipitation events. After the rain events, the flow would decrease to very low values. There were no discernible changes in flow at SG-9 that appear related to pumping of the onsite bedrock wells during the pumping test periods.

SG-4 Through SG-9 Flow Comparison

The stream flow at locations SG-4 through SG-9 generally increased in volume as the upstream watershed area expanded and overland runoff and baseflow increased. However, during rain events some of the more upstream locations would report slightly higher flow values than downstream locations. An example of this was observed during the background monitoring period on July 7 when the flows at SG-6 and SG-8 were higher than their more downstream counterparts. This change is attributed to the flashy nature of the runoff stream-flow in the channel, and the start and stop time of the rain event versus the time of day the channel was gaged.

Overall, the stream channel was gaged between each reach along its length, with the exception of the stretch of the channel between SG-5 and SG-6. During non-precipitation conditions, this section was losing throughout the background, testing and recovery periods. The losing/downward head may be attributed to leakage along the bedrock contact between the Dh and DS bedrock formations which is mapped between SG-6 and SG-5 (Figure 2).

An increase in the loss of water along this stretch of the stream was measured on July 25 and 26 during the early portion of the individual pumping test. However, that condition of increased losing was not sustained, and the values returned to normal by the end of the pumping test period, indicating that the brief increase in loss was

not attributed to pumping and possibly related to post-precipitation recession in the flows. Further support of this conclusion was no drawdown was measured in the nearby bedrock wells or in the piezometers near these gaging locations, which would have also been observed if the change in stream flow was pumping-related impact.

In the absence of precipitation, the flows at all the gaging locations were generally very low (0.1 cfs or less). The flows would increase as a result of rain events, after which the flow would again decrease to very low values. No discernible changes in flows were observed at SG-4 through SG-9 that are attributed to pumping in the onsite wells during the simultaneous pumping test from July 10 through July 16, 1027 or during the individual pumping test on well C-21 from July 25 through July 28, 2017.

Clovewood Property, Pumping Test Program

Project No. 770113.LAKANN.00

13.0 WATER-QUALITY RESULTS

Water samples were collected from wells C-6, C-12, C-14, C-16, C-21 and C-23 during the pumping test program conducted on the wells in July 2017. The samples were submitted to Envirotest Laboratories, Inc. in Newburgh, NY for analysis for all parameters listed in the NYSDOH Sanitary Code, Part 5, Subpart 5-1; for the SOCs dioxin, endothall, glyphosate, and diquat; and for MPA, giardia and cryptosporidium analyses. Copies of the laboratory reports for the samples collected are included in Appendix X.

Follow-up samples were collected from wells C-12 and C-23 in September 23 to address detections reported in the Part 5 samples collected. Copies of the laboratory reports from this sampling event are included in Appendix XI.

13.1 WELL C-6

The sample results from well C-6 met all NYSDOH drinking water standards with the exception of iron, manganese, color and turbidity. The turbidity result for well C-6 was 8.9 nephelometric turbidity units (NTU) which exceeds the NYSDOH drinking water standard maximum contaminant level (MCL) of 5 NTU for turbidity; the color result for C-6 was 20 units which exceeds the MCL of 15 units for color; the iron concentration was 1.21 micrograms per liter (mg/L) which exceeds the MCL of 0.3 mg/L for iron; and the manganese concentration was 0.201 mg/L which does not exceed the individual MCL for manganese of 0.3 mg/L, but does exceed the combined iron and manganese MCL of 0.5 mg/L.

The elevated color and iron concentrations are likely related to the elevated turbidity reported in the well. A dissolved iron analysis was included with the Part 5 analyses completed on C-6. The result of the dissolved iron analysis was not detected (ND) less than 0.06 mg/L. This data indicates that a decrease in turbidity in well C-6 would likely result in a decrease in the iron concentration in the well. Additional pumping to further develop the well is recommended to reduce the turbidity, color and iron concentrations.

The Langlier Index value, which is a measure of corrosivity, reported for well C-6 was -0.810. This value is outside of the desired range of -0.5 to 0.5; however, there is no MCL for this parameter. This value should be taken into consideration in the water treatment design for this well.

The results for the MPA sample from well C-6 reported a low risk for potential GWUDI and giardia and cryptosporidium were not detected.

13.2 WELL C-12

The sample results for well C-12 met all NYSDOH drinking water standards with the exception of the presence of total coliform and e. coli. The bacteria detection in this well is likely the result of the use of the

temporary well appurtenance for the pumping test and the absence of a sanitary sealed well cap on the well during the test period.

Well C-12 was disinfected and resampled in September 2017. The results of the resampling event were absent for total coliform and e. coli.

The results for the MPA sample from well C-12 reported a low risk for potential GWUDI and giardia and cryptosporidium were not detected.

13.3 WELL C-14

The sample results for well C-14 met all NYSDOH drinking water standards with the exception of iron, manganese, color and turbidity. The turbidity result for C-14 was 11.6 nephelometric turbidity units (NTU) which exceeds the MCL of 5 NTU; the color result for C-14 was 20 units which exceeds the MCL of 15 units; the iron concentration was 1.19 mg/L which exceeds the MCL of 0.3 mg/L; and the manganese concentration was 0.285 mg/L which does not exceed the individual MCL for manganese of 0.3 mg/L, but does exceed the combined iron and manganese MCL of 0.5 mg/L.

The elevated color and iron concentrations are likely related to the elevated turbidity reported in the well. The result of the dissolved iron analysis completed on the well C-14 sample was not detected (ND) less than 0.06 mg/L. This data indicates that a decrease in turbidity in well C-14 would likely result in a decrease in the iron concentration. Additional pumping to further develop the well is recommended to reduce the turbidity, color and iron concentrations.

The Langlier Index value for the Part 5 samples collected from C-14 was -0.690. This value is outside of the desired range of -0.5 to 0.5; however, there is no MCL for this parameter. This value should be taken into consideration in the water treatment design for this well.

The results for the MPA sample from well C-14 reported a low risk for potential GWUDI and giardia and cryptosporidium were not detected.

13.4 WELL C-16

The sample results for well C-16 met all NYSDOH drinking water standards with the exception of iron, manganese, color and turbidity. The turbidity result for C-16 was 13.0 NTU which exceeds the MCL of 5 NTU; the color result for C-16 was 30 units which exceeds the MCL of 15 units; the iron concentration was 1.05 mg/L which exceeds the MCL of 0.3 mg/L; and the manganese concentration was 0.373 mg/L which exceeds the MCL for manganese of 0.3 mg/L and the combined iron and manganese MCL of 0.5 mg/L.

The elevated color and iron concentrations are likely related to the elevated turbidity reported in the well. The result of the dissolved iron analysis completed on the sample from C-16 was not detected (ND) less than 0.06

mg/L. This data indicates that a decrease in turbidity in well C-16 would likely result in a decrease in the iron concentration. Additional pumping to further develop the well is recommended to reduce the turbidity, color and iron concentrations.

The dissolved manganese result was 0.381 mg/L which was similar to the total manganese concentration. Treatment to reduce manganese may be warranted.

The sodium concentration reported in C-16 was 21.1 mg/L which is slightly above the reporting limit of 20 mg/L for people on sodium restricted diets, but below the recommended limit of 270 mg/L. The NYSDOH does not currently have an MCL for sodium.

The results for the MPA sample from well C-16 reported a low risk for potential GWUDI and giardia and cryptosporidium were not detected.

13.5 WELL C-21

The sample results for well C-21 met all NYSDOH drinking water standards with the exception of iron, manganese, color and turbidity. The turbidity result for C-21 was 17.6 NTU which exceeds the MCL of 5 NTU; the color result for C-21 was 75 units which exceeds the MCL of 15 units; the iron concentration was 7.74 mg/L which exceeds the MCL of 0.3 mg/L; and the manganese concentration was 1.79 mg/L which exceeds the MCL for manganese of 0.3 mg/L and the combined iron and manganese MCL of 0.5 mg/L.

The elevated color and iron concentrations are likely related to the elevated turbidity reported in the well. The result of the dissolved iron analysis conducted on the sample from C-21 was 1.09 mg/L, a significant reduction in concentration, but still above the MCL of 0.3 mg/L. This data indicates that a decrease in turbidity in well C-21 would likely result in a decrease in the iron concentration. The dissolved manganese result was 1.89 mg/L which was similar to the total manganese concentration reported. Additional pumping to further develop the well is recommended to reduce the turbidity, color and iron concentrations. However, treatment to reduce iron and manganese concentrations may still be warranted.

The Langlier Index value for the Part 5 samples collected from C-21 was -2.95. This value is outside of the desired range of -0.5 to 0.5; however, there is no MCL for this parameter. This value should be taken into consideration in the water treatment design for this well.

The results for the MPA sample from well C-21 reported a low risk for potential GWUDI and giardia and cryptosporidium were not detected.

13.6 WELL C-23

The sample results for well C-23 met all NYSDOH drinking water standards with the exception of iron, manganese, color and turbidity. The turbidity result for C-23 was 35.7 NTU which exceeds the MCL of 5 NTU;

the color result for C-23 was 75 units which exceeds the MCL of 15 units; the iron concentration was 6.70 mg/L which exceeds the MCL of 0.3 mg/L; and the manganese concentration was 1.73 mg/L which exceeds the MCL for manganese of 0.3 mg/L and the combined iron and manganese MCL of 0.5 mg/L.

The elevated color and iron concentrations are likely related to the elevated turbidity reported in the well. The result of the dissolved iron analysis completed on the sample from C-23 was 2.97 mg/L, a significant reduction in concentration, but still above the MCL of 0.3 mg/L. This data indicates that a decrease in turbidity in well C-23 would likely result in a decrease in the iron concentration.

The dissolved manganese result was 1.74 mg/L which was similar to the total manganese concentration reported. Additional pumping to further develop the well is recommended to reduce the turbidity, color and iron concentrations. However, treatment to reduce iron and manganese concentrations may still be warranted.

The Langlier Index value for the Part 5 samples collected from C-23 was -1.96. This value is outside of the desired range of -0.5 to 0.5; however, there is no MCL for this parameter. This value should be taken into consideration in the water treatment design for this well.

A very small detection of benzo(a)pyrene was reported in the sample from well C-23. The reported concentration was 0.032J micrograms per liter (ug/L). The qualifier "J" included in the reported concentration indicates that the value reported was below the practical quantitation limit but above the method detection limit for the analytical method. The reported concentration of 0.032J ug/L is below the MCL for benzo(a)pyrene of 0.2 ug/L.

Well C-23 was resampled for benzo(a)pyrene in September 2017 to confirm the presence of the detection. The September 2017 sample reported no detection of benzo(a)pyrene.

The results for the MPA sample from well C-23 reported a low risk for potential GWUDI and giardia and cryptosporidium were not detected.

PHYSICAL PARAMETER MEASUREMENTS 14.0

Physical parameter measurements of pH, conductivity and temperature were collected from the pumping wells and nearby surface-water features during the pumping tests. Conductivity and pH measurements were collected using a HORIBA water-quality meter. Temperature measurements were recorded using pressure transducers. For the surface-water features, temperature measurements used in the comparison were taken from the pressure transducers installed on the exterior of the closest piezometer or, if insufficient surface water was present, from the interior of the nearest shallow-screened piezometer. The parameters were measured as part of the assessment of potential GWUDI for the pumping wells. Tables of the physical parameter measurements and graphs of the data collected are included in Appendix XII.

14.1 WELL C-6

Conductivity measurements were collected from the well C-6 discharge water and from the surface water in the stream channel near the well at the location of PZ-5. The conductivity values measured in the well's discharge water were in the range of 0.32 milliSiemen per centimeter (mS/cm) to 0.27 mS/cm and in the surface water conductivity ranged from 0.15 mS/cm to 0.05 mS/cm. The conductivity values measured in the groundwater were consistently higher than the values measured in the nearby surface water.

The temperature values measured in the groundwater in well C-6 were consistently lower than the temperature values measured in the surface water. The surface-water temperature showed daily fluctuations, increasing and decreasing with changes in ambient air temperature. The groundwater in well C-6 did not show the same daily fluctuating pattern.

The pH measurements in the well's discharge water and nearby surface water were all in the range of approximately 6.75 to 8.25. Both measuring locations showed some variation during the monitoring period; however, no significant changes in values occurred which would indicate direct influence effects.

The physical parameter data collected from well C-6 and the nearby surface water do not indicate a high potential for GWUDI in well C-6.

14.2 WELL C-12

Conductivity measurements were collected from the well C-12 discharge water and from surface water in the stream channel near the location of PZ-1. The conductivity values measured in the well's discharge water were in the range of 0.32 mS/cm to 0.27 mS/cm and in the surface water ranged from 0.16 mS/cm to 0.06 mS/cm. The conductivity values measured in the groundwater were consistently higher than the values measured in the nearby surface water.

Temperature values from the groundwater in well C-12 and from the interior of the shallow-screened piezometer at PZ-1 have been compared. The temperature values were consistently lower in the well water compared to the temperatures measured in the shallow groundwater in PZ-1.

The pH measurements in the well's discharge water and nearby surface water were all in the range of approximately 7.0 to 8.0 during the data collection period. Both measuring locations showed some variation during the monitoring period; however, no significant changes in values occurred which would indicate direct influence effects.

The physical parameter data collected from well C-12 and the nearby surface water do not indicate a high potential for GWUDI in well C-12.

14.3 WELL C-14

Conductivity measurements were collected from the well C-14 discharge water and the surface water in the stream channel near the location of PZ-6. The conductivity values measured in the well's discharge water were in the range of 0.30 mS/cm to 0.22 mS/cm and in the surface water ranged from 0.10 mS/cm to 0.05 mS/cm. The conductivity values measured in the groundwater were consistently higher than the values measured in the nearby surface water.

The temperature values measured in the groundwater were lower in well C-14 than in the nearby surface water during the pumping test period. The surface-water temperature showed daily fluctuations, increasing and decreasing with changes in ambient air temperature. The groundwater in well C-14 did not show the same daily fluctuating pattern.

The pH measurements in the well discharge water and nearby surface water were all in the range of approximately 6.0 to 7.5 during the data collection period. Both measuring locations showed some variation during the monitoring period; however, no significant changes in values occurred which would indicate direct influence effects.

The physical parameter data collected from well C-14 and the nearby surface water do not indicate a high potential for GWUDI in well C-14.

14.4 WELL C-16

Physical parameter measurements of pH and conductivity were collected from the discharge water from well C-16, but there was no standing surface water within 200 feet of the well to measure during the test period. Therefore, no pH or conductivity measurements could be collected from surface water near well C-16 for comparison.

Although there was no surface water nearby for comparison, the pH and conductivity values measured in well C-16 were consistent with the values measured in other onsite pumping wells. The conductivity values in C-16 ranged from 0.40 mS/cm to 0.32 mS/cm and the pH ranged from 6.8 to 7.8.

Temperature values were collected from the interior of the shallow-screen piezometer at the PZ-16 location and from the pumping well. The temperature values in well C-16 were consistently lower than the temperatures measured in the piezometer.

The physical parameter data from well C-16 do not indicate a high potential for GWUDI in well C-16.

14.5 WELL C-21

Conductivity measurements were collected from the well C-21 discharge water and from surface water at the location of PZ-8. The conductivity values measured in the well's discharge water were in the range of 0.12 mS/cm to 0.11 mS/cm and in the surface water ranged from 0.06 mS/cm to 0.04 mS/cm. The conductivity values measured in the groundwater were consistently higher than the values measured in the nearby surface water.

The temperature values measured in the groundwater in well C-21 were lower than in the nearby surface water during the pumping test period. The surface-water temperature showed some daily fluctuations, increasing and decreasing with changes in ambient air temperature. The groundwater in well C-21 did not show the same daily fluctuating pattern.

The pH measurements in the well discharge water ranged from approximately 5.0 to 7.0 and nearby surface water were all in the range of approximately 4.0 to 6.25 during the data collection period. Both measuring locations showed some variation during the monitoring period; however, no significant changes in values occurred which would indicate direct influence effects.

The physical parameter data collected from well C-21 and the nearby surface water do not indicate a high potential for GWUDI in well C-21.

14.6 WELL C-23

Conductivity measurements were collected from the well C-23 discharge water and from surface water near the well. The conductivity values measured in the well's discharge water were in the range of 0.16 mS/cm to 0.12 mS/cm and in the surface water ranged from 0.13 mS/cm to 0.05 mS/cm. The conductivity values measured in the groundwater were consistently higher than the values measured in the nearby surface water with the exception of one measurement collected for the surface water on July 10.

Temperature values for the groundwater in well C-23 and from the interior of the shallow-screened piezometer at PZ-9 have been compared. The temperature values were consistently lower in the well compared to the temperatures measured in PZ-9.

The pH measurements in the well's discharge water and nearby surface water were all in the range of approximately 5.5 to 7.5 during the data collection period. Both measuring locations showed some variation during the monitoring period; however, no significant changes in values occurred which would indicate direct influence effects.

The physical parameter data collected from well C-23 and the nearby surface water do not indicate a high potential for GWUDI in well C-23.

Clovewood Property, Pumping Test Program Project No. 770113.LAKANN.00

15.0 CONCLUSIONS

- The average water demand for the Clovewood project calculated based on the March 2014 New York State Design Standards for Intermediate Sized Wastewater Treatment Systems water usage rate of 110 gpd/bedroom for 600, 4-bedroom residential units is 264,000 gpd or 183.3 gpm. The NYSDOH requires that a new water system demonstrate twice the average water demand of a proposed development with the best well out of service. Therefore, to meet this NYSDOH requirement, the water system must be capable of pumping 528,000 gpd or 366.7 gpm with the best well out of service.
- The applicant may also consider the inclusion of swimming pools/bath houses in the proposed development. The water usage rate for a swimming pool/bath house is based on 10 gpd per swimmer with an allowed 20% reduction for the use of water saving fixtures. Assuming 2 swimmers per residential unit, the additional water demand would be 9,600 gpd or 6.7 gpm. Adding this demand to the proposed 600 units, the combined average water demand with the bath houses is 273,600 gpd or 190 gpm and twice the demand is 547,200 gpd or 380 gpm.
- A simultaneous pumping test was conducted on proposed bedrock water-supply wells C-6, 12, 14, 16 and 23 located on the Clovewood property. Well pumping was started on July 10, 2017. A staggered start up schedule of the wells was utilized to assess potential pumping-related interference effects between the wells. The pumping test was ended on the early morning of July 16, 2017. The wells were pumped concurrently for approximately 5.5 days and demonstrated stabilized yields of 45 gpm, 40.5 gpm, 157 gpm, 50 gpm and 90 gpm, respectively, for a combined total yield of 382.5 gpm or 550,800 gpd.
- Initially, wells C-7B and C-21 were also included in the simultaneous pumping test. The wells were started on July 10 along with the other five wells. However, offsite water-level impacts were observed which were attributed to pumping in well C-7B. Because of the impacts, it was determined that the test on well C-7B would be ended and that well C-7A, which was proposed to be tested as the best well during the follow up test, would also be excluded from the testing program to avoid further offsite impacts. Therefore, well C-21 was reassigned the role of the best well. As a result, the pumps in wells C-7B and C-21 were shut down on July 12 and the simultaneous pumping test continued without these wells.
- Wells C-6, 12, 14, 16 and 23 all demonstrated a water-level change of less than 0.5 per 100 feet of available drawdown in each well over the final 6 hours of the pumping test period per Section 3.a.i of the NYSDEC Pumping Test Procedures document. However, several of the wells did have a slight declining trend in water level at the end of the test period (Section 3.a.ii), therefore in accordance with Section 3.b of the NYSDEC Pumping Test Procedures guidance document, further analysis was conducted by completing 180-day water-level drawdown projections to further assess the pumping test data. The 180-day water-level drawdown projections show that the water level in wells C-6, 12, 16 and 23 remained above the pump settings used during the pumping test period with a margin of more than 5% of the available water column in the well in accordance with NYSDEC guidelines. The projected water-level drawdown in well C-14 did not meet the 5% requirement; therefore the pump in well C-14 will need to be set lower in the well to achieve the required 5%.

- Following shut down of the simultaneous pumping test on July 16, water-level recovery measurements were collected from the wells. The water levels in wells C-6, 12, 14, 16 and 23 reached 90% recovery to their pretest levels in 57 hours, 13 hours, 62 hours, 70 hours and 103 hours, respectively, and continued to rise.
- Well C-21 was tested individually as the best well between July 25 and 28, 2017. The well was pumped for 72.5 hours. The pumping rate demonstrated during the test period was 163 gpm. The drawdown over the final 6 hours of the test period in the well was less than 0.5 foot per 100 feet of available drawdown in the well. However, there was a slight declining trend in the water level at the end of the test period, so a 180-day water-level drawdown projection was conducted in accordance with Section 3.b of the NYSDEC Pumping Test Procedures document. The 180-day water-level drawdown projection shows that the water level in well C-21 remained above the pump setting used during the pumping test period with a margin of more than 5% of the available water column in the well in accordance with NYSDEC guidelines.
- Water-level recovery data was collected from well C-21 following the end of the test on July 28. The water level in well C-21 reached 90% recovery to the pre-test static level 98.5 hours after shut down of the test and continued to rise.
- A drought assessment was conducted based on the precipitation and bedrock groundwater levels which occurred during the 1960's drought in the region. Precipitation information from the Port Jervis weather station and the USGS bedrock monitoring well RO-18 were utilized to assess the effect a long-term drought would have on the groundwater levels on the Clovewood property. The assessment indicated that under severe drought conditions, a decline in water level between -0.29 and -1.14 feet would occur in the Clovewood wells compared to the July 2017 water levels. It is also noteworthy that the regional conditions over the last 5 years (2012 to the present) have been dry, with a cumulative precipitation rate that was -13% below normal, and that regional water levels were already somewhat low because of the dry conditions when the pumping test program was conducted.
- Groundwater recharge to the bedrock aquifer underlying the study property was calculated using a recharge rate for metasedimentary bedrock of 625 gpd/acre and an estimated area of potential recharge to the bedrock aquifer underlying the Clovewood site of about 1,177 acres. Based on these values, the recharge to bedrock under normal precipitation conditions is approximately 735,600 gpd. Under one-year-in-30 drought conditions, the estimated average recharge rate would decrease about 31% to approximately 507,600 gpd or 352.5 gpm. This drought recharge rate exceeds the average water demand of the proposed 600, four-bedroom units of 183.3 gpm. The drought recharge also exceeds the average water demand of the project with the potential inclusion of swimming pools/bath houses within the development of 190 gpm.
- As part of the pumping test program, water-level measurements were collected from 17 onsite monitoring wells to assess drawdown in the aquifer. In addition, the seven wells pumped during the testing program (C-6, 7B, 12, 14, 16, 21 and 23) were also used as monitoring locations when they were not actively pumping. Water-level drawdown was measured in the all of the onsite wells during the simultaneous pumping test. The drawdown measured during this test has been separated into drawdown attributed to pumping in well C-7B and drawdown attributed to pumping in wells C-6, 12, 14, 16 and 23. Drawdown effects were measured in 10 of the onsite monitoring wells from pumping in well C-7B and ranged from none discernible in seven of the onsite

wells to 44.5 feet in well C-7A. Drawdown was measured in 16 of the onsite wells from pumping in wells C-6, 12, 14, 16 and 23. In wells were drawdown was measured, the values ranged from 0.6 foot to 120.7 feet. During the individual pumping test conducted on well C-21, water-level drawdown was measured in three onsite wells. In the wells where drawdown was measured, the drawdown ranged from 15.8 feet to 93.5 feet.

- Water-level measurements were also collected from 16 offsite wells and a flowing spring on Route 208 during the pumping test program. No discernible water-level impacts were observed that were attributed to pumping in wells C-6, 12, 14, 16 and 23 during the simultaneous pumping test or to pumping well C-21 during the individual pumping test. Offsite water-level impacts were observed that were attributed to pumping in well C-7B. Drawdown was observed in five offsite wells and the spring on Route 208. The drawdown ranged from 4.5 feet to 24.5 feet. After the pumping of well C-7B was ended, the water levels in the impacts offsite wells and the flow at the spring recovered.
- Water-level measurements were collected from eight piezometer locations on the project site. A piezometer location was set up in surface-water features near each of the pumping wells and a location was also set up near onsite monitoring well C-22. The water-level data collected from the piezometers at PZ-1, PZ-5, PZ-6, PZ-9, PZ-16, PZ-Pond and PZ-22 did not appear to show pumping-related water-level drawdown in the groundwater and/or surface water during either test period.
- There was no discernible effect on the surface water at PZ-8 from onsite pumping. However, in the piezometer at PZ-8 a change in the groundwater level was observed during the pumping tests that could potentially be pumping related. Additional monitoring of the shallow groundwater at this location may be warranted to conduct an assessment of whether the change was naturally occurring or a result of onsite pumping. A similar change in the groundwater trend was also observed at PZ-9, which is located in the same upland setting as PZ-8. This change in trend at PZ-9 was attributed to natural groundwater conditions because the change took place under pumping and non-pumping conditions. However, if additional monitoring at PZ-8 is conducted, additional data collection from PZ-9 is recommended to provide supplemental information.
- Stream-flow measurements were collected from nine gaging locations during the pumping test period. The
 stream-flow data collected showed variation as a result of precipitation received during the background, testing
 and recovery periods, but no discernible change in flow was measured that is attributed to pumping in the onsite
 wells.
- Water samples were collected from the onsite wells during their respective pumping periods and analyzed for the parameters required by the NYSDOH Sanitary Code Part 5, Subpart 5-1 for community water-supply wells and for the extra compounds of dioxin, endothall, diquat and glyphosate. In addition, MPA, giardia and cryptosporidium samples were collected from all of the wells because they are located within 200 feet of surface-water bodies.
- The results of the water samples collected from the six proposed supply wells met all NYSDOH drinking water standards with the exception of iron, manganese, color and turbidity concentrations in wells C-6, 14, 16, 21 and 23; the presence of total coliform and e. coli bacteria in well C-12; and a slightly elevated sodium concentration in well C-16. Following the completion of the pumping test program, well C-12 was disinfected and resampled

for total coliform and E.coli. The results from the resampling event were absent for total coliform. Overall, the elevated iron, manganese and color concentrations reported are likely the result of the elevated turbidity concentrations reported in the wells. Dissolved iron and manganese samples were analyzed from the wells and showed significantly lower concentrations. Additional pumping to further develop the wells and reduce turbidity concentrations will likely be successful in reducing the iron, manganese and color values reported. However, in the case of wells C-21 and C-23, the dissolved iron and manganese concentrations remained above MCL values, therefore treatment options to reduce iron and manganese may still be needed for these wells. The sodium concentration in well C-16 was 21.1 mg/L, which was slightly above the reporting limit of 20.0 mg/L. No treatment to reduce the sodium concentration is required, as the exceedance of a notification level only.

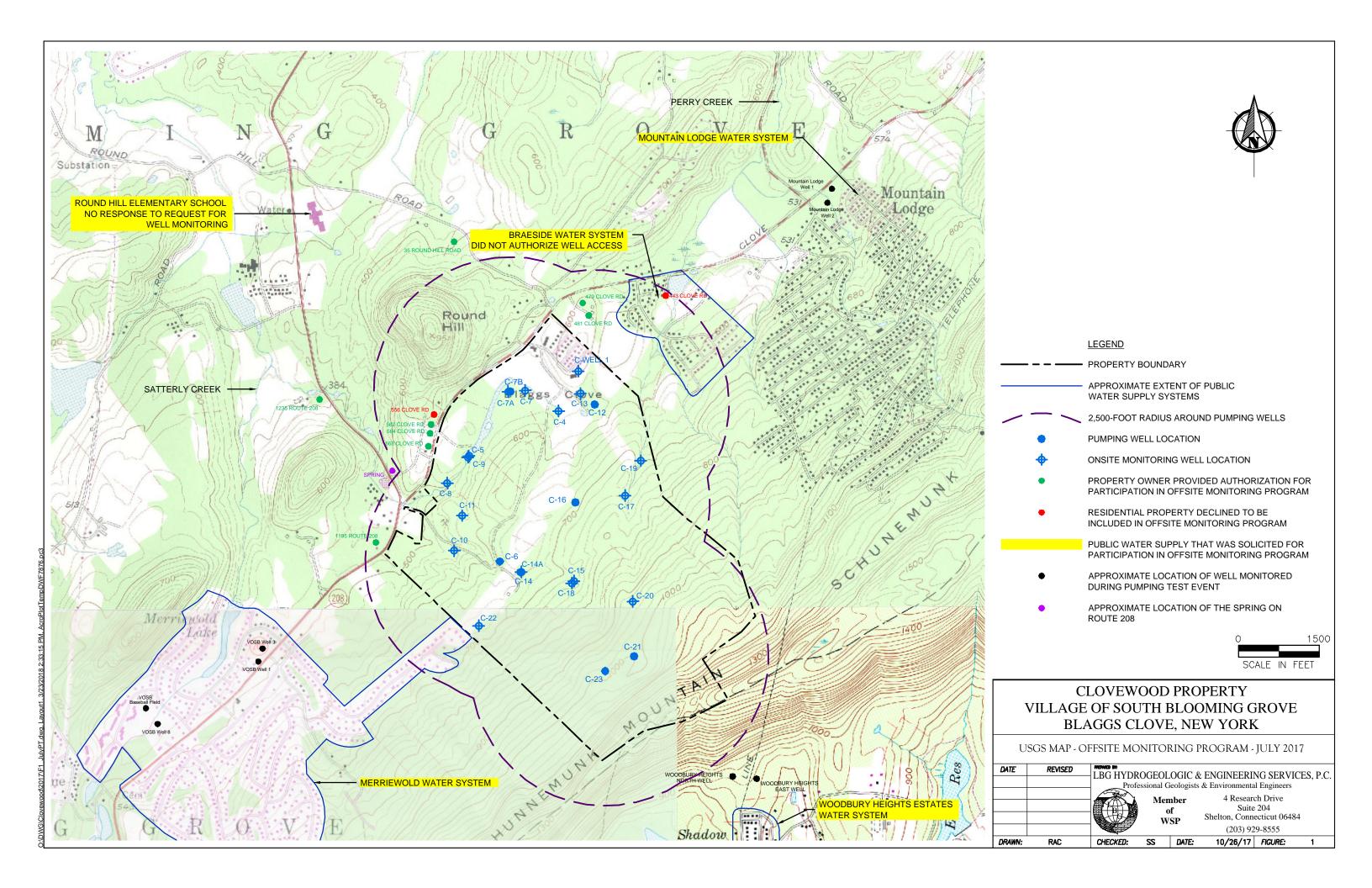
- Langlier Index values in wells C-6, C-14, C-21 and C-23 were -0.810, -0.690, -2.95 and -1.96, respectively, which are outside of the desired range of -0.5 to 0.5; however, there is no MCL value for this parameter. These Langlier Index values should be taken into consideration in the water treatment design for this well.
- A trace detection of benzo(a)pyrene was reported in the sample from well C-23 at a concentration of 0.032J micrograms per liter (ug/L). The qualifier "J" included in the reported concentration indicates that the value reported was below the practical quantitation limit but above the method detection limit for the analytical method. The reported concentration of 0.032J ug/L is below the MCL for benzo(a)pyrene is 0.2 ug/L. Well C-23 was resampled for benzo(a)pyrene in September 2017 to confirm the presence of the detection. The September 2017 sample reported no detection of benzo(a)pyrene above the practical quantitation limit or the method detection limit.
- Physical parameters measurements of temperature, pH and conductivity were collected from the pumping wells and nearby surface-water features (where surface water was present) during their respective pumping tests as part of an assessment for potential GWUDI. The physical parameter data collected does not indicate a high risk of potential GWUDI in any of the onsite pumping wells.
- The results for the MPA samples collected from all of the wells were reported to be low risk for potential GWUDI and all of the samples reported none detected for giardia and cryptosporidium.

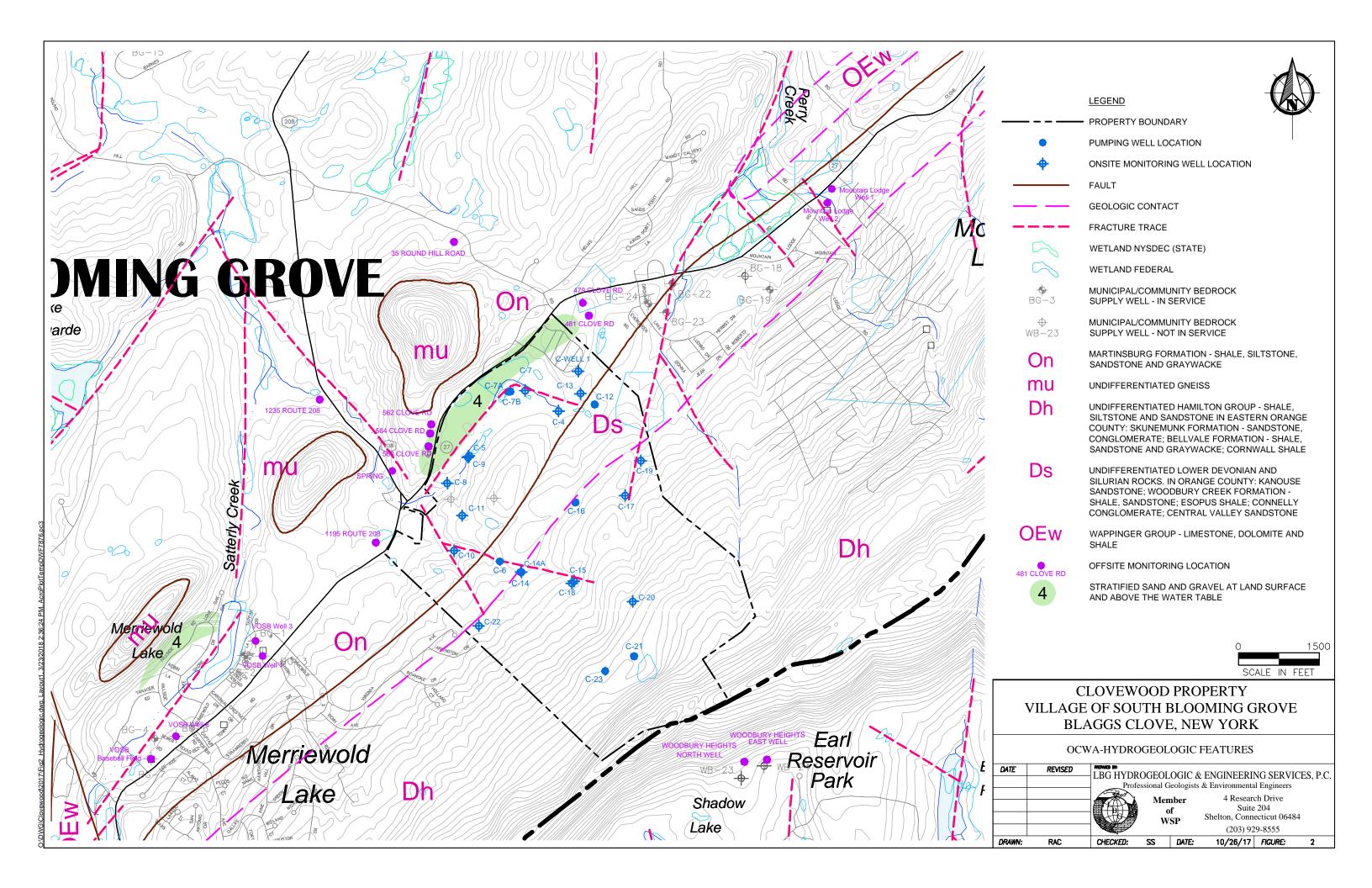
cmm

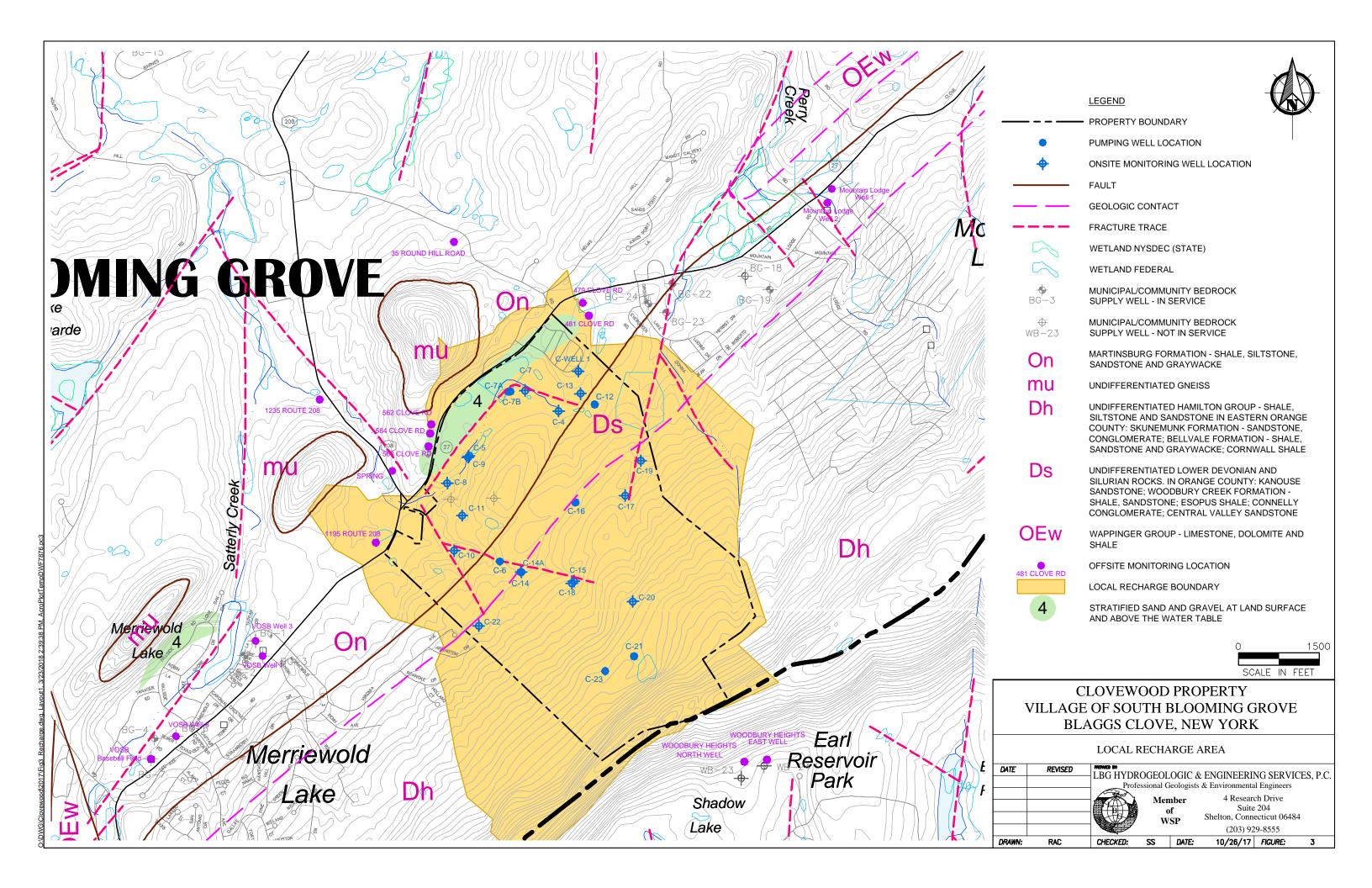
January 31, 2019

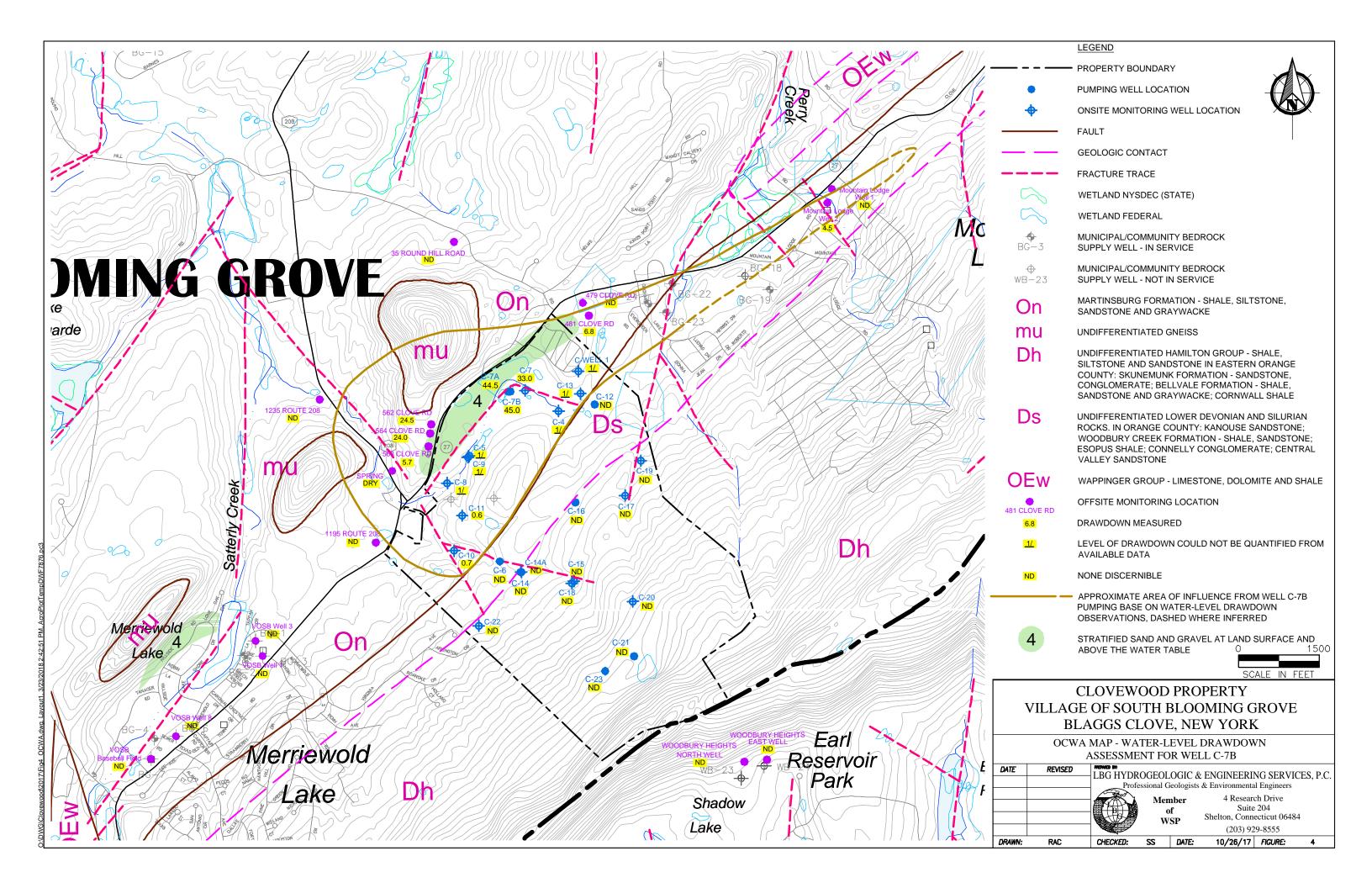
H:\Lake Anne\Clovewood\2019\July 2017 Pumping Test Rpt - Revised January\Revised Text.docx

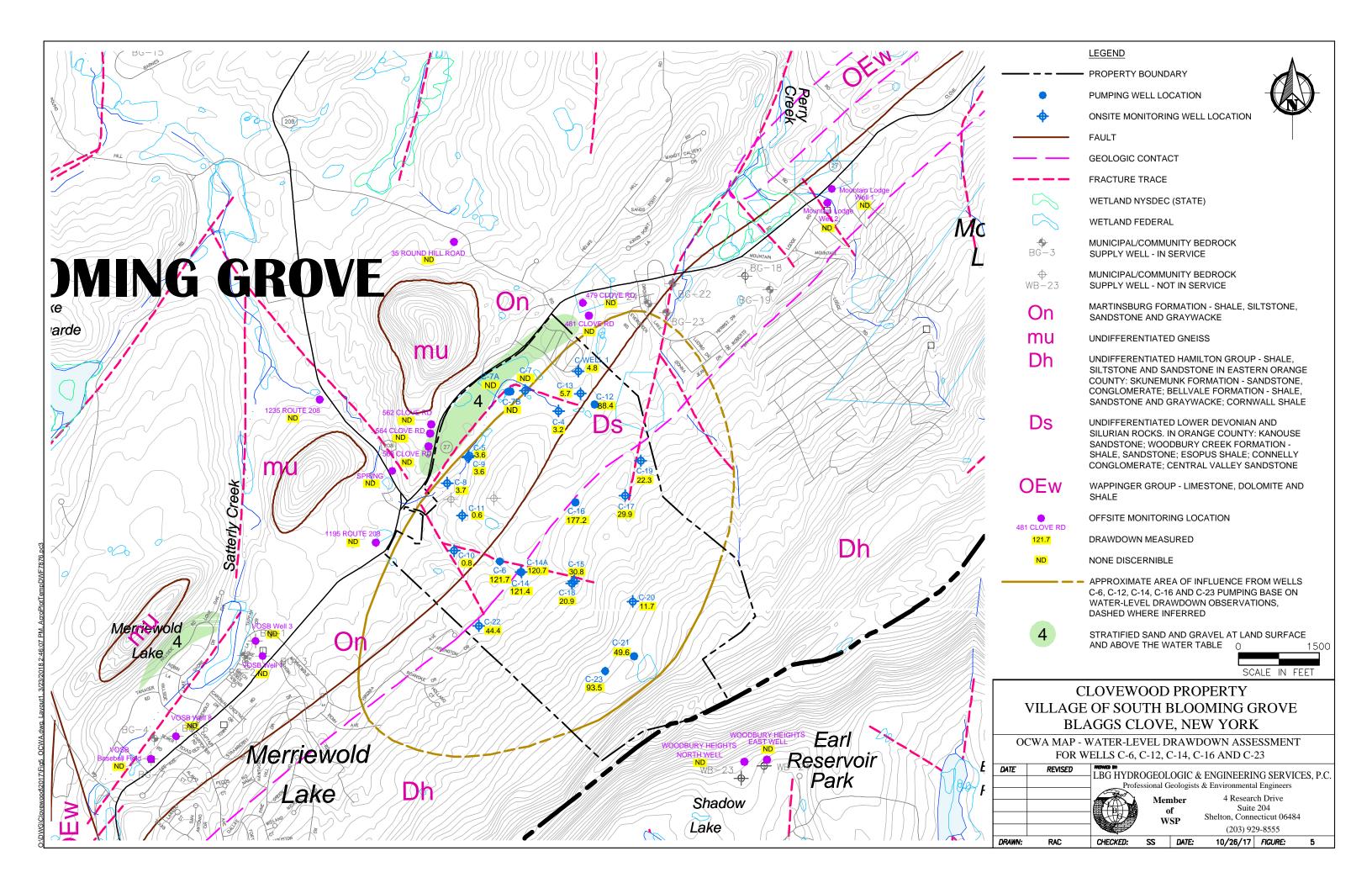
FIGURES

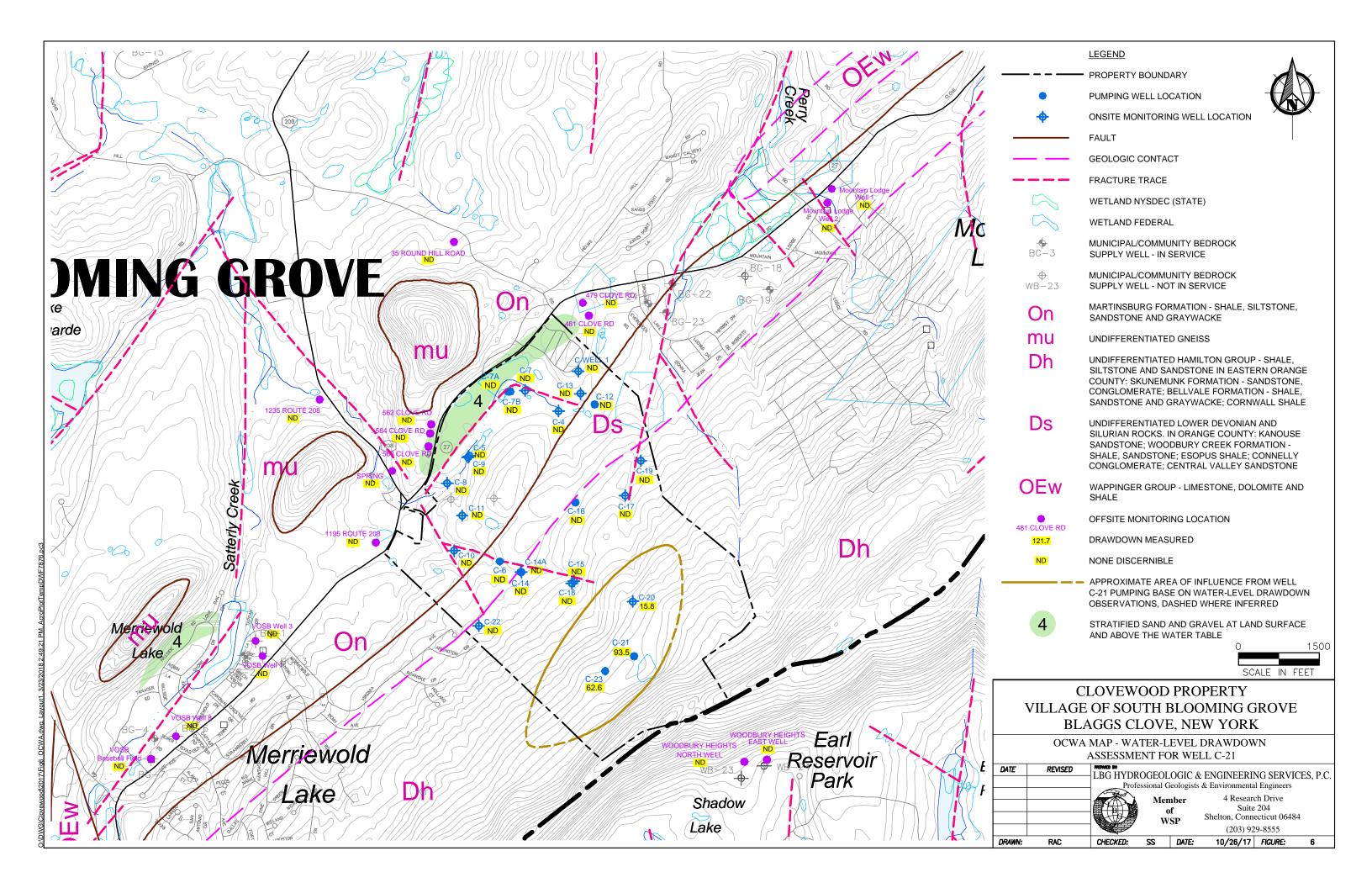












APPENDIX I

Stacy Stieber

From:

Miller, Keith < KMiller@orangecountygov.com>

Sent:

Wednesday, March 8, 2017 1:29 PM

To:

mayor@villageofsouthbloominggrove.com; Stacy Stieber

Cc:

Miller, Keith; Sims, Ed

Subject:

FW: Clovewood Pumping Test Plan_Village of South Blooming Grove

Attachments:

Pumping Test Plan_Sept 2016.pdf; Well Log_7A after deepening.pdf; Well Logs C-7A through C-12.pdf; Well Logs C-14 through 17.pdf; Well Logs C-4 through C-7.pdf; Well

Logs C-18 through C-23 and C-7B.PDF

Dear Mayor Jeroloman & Ms. Stieber:

The NYSDOH has reviewed the attached materials and offers their comments below. OCHD has no comments beyond those of the NYSDOH.

Best regards,

km

Keith Miller, P.E. Sr. Public Health Engineer Orange County Health Dept.

124 Main St., Goshen, NY 10924

PH: 845-291-2331, FX: 845-291-4078

KMiller@OrangeCountyGov.com

From: Rogers, Brock (HEALTH) [mailto:brock.rogers@health.ny.gov]

Sent: Wednesday, March 08, 2017 11:33 AM

To: Pan, Minzi (HEALTH)

Cc: Miller, Keith

Subject: RE: Clovewood Pumping Test Plan_Village of South Blooming Grove

Minzi,

I have reviewed the proposed Clovewood pumping test plan. My only comment is that in addition to conducting GWUDI testing (i.e., MPA, giardia, crypto, pH, conductivity, temperature) for wells located within 200 feet of surface water, the same should be done for wells completed in a carbonite aquifer. Many of the well logs identify limestone; some logs do not indicate the rock type.

Feel free to forward this on to LBG and the Village.

Brock Rogers, P.E.

Professional Engineer 1
Bureau of Water Supply Protection

New York State Department of Health

Empire State Plaza, Corning Tower, Room 1135, Albany, NY 12237 518-402-7650 | brock.rogers@health.ny.gov www.health.ny.gov/environmental/water/drinking/ From: Pan, Minzi (HEALTH)

Sent: Friday, February 17, 2017 3:55 PM

To: Rogers, Brock (HEALTH) < brock.rogers@health.ny.gov>

Cc: Miller, Keith < KMiller@orangecountygov.com>

Subject: RE: Clovewood Pumping Test Plan_Village of South Blooming Grove

Hi Brock,

LBG is targeting around the end of March/early April to start the well testing. It could be weather dependent.

Minzi

From: Rogers, Brock (HEALTH)

Sent: Friday, February 17, 2017 3:49 PM

To: Pan, Minzi (HEALTH) < <u>Minzi.Pan@health.ny.gov</u>> **Cc:** Miller, Keith < <u>KMiller@orangecountygov.com</u>>

Subject: FW: Clovewood Pumping Test Plan_Village of South Blooming Grove

Minzi,

Has the pump test already been done? I'd be happy to take a look at the plan but I don't want to spend time reviewing it just to find out the test was already done.

Brock

From: Montysko, Michael J (HEALTH)
Sent: Thursday, February 16, 2017 3:47 PM

To: Rogers, Brock (HEALTH) < brock.rogers@health.ny.gov>

Subject: FW: Clovewood Pumping Test Plan Village of South Blooming Grove

Please get back to Minzi

Michael J. Montysko, P.E. Chief, Design Section NYS DOH Bureau of Water Supply Protection Empire State Plaza Corning Tower Rm. 1135 Albany, NY 12237 Ph. 518-402-7650 Fx. 518-402-7599

michael.montysko@health.ny.gov





From: Pan, Minzi (HEALTH)

Sent: Thursday, February 16, 2017 3:34 PM

To: Montysko, Michael J (HEALTH) < michael.montysko@health.ny.gov Subject: FW: Clovewood Pumping Test Plan Village of South Blooming Grove

Hi Mike,

Just a FYI. Don't know if your section would like to be involved in the test pumping plan review.

Thank you, Minzi

From: Miller, Keith [mailto:KMiller@orangecountygov.com]

Sent: Thursday, February 16, 2017 1:53 PM

To: sstieber@lbgct.com

Cc: Pan, Minzi (HEALTH) < Minzi.Pan@health.ny.gov >; Sims, Ed < ESims@orangecountygov.com >

Subject: FW: Clovewood Pumping Test Plan_Village of South Blooming Grove

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Stacy,

Thanks for sending the plan.

What's your time frame for review of the pumping plan, please? I see that the date proposed for starting the pumping test given on page 8 of the Pumping Test Plan has come and gone.

My supervisor suggests that you concurrently involve NYSDOH in the test pumping plan review, since they will be asked to approve the resulting water supply (or modification to an existing water supply) should you have a successful conclusion. This is also reasonable since we're talking about adding 2,400 to 3,600 bedrooms, practically doubling the population of the Village of South Blooming Grove (NY3510641).

Best regards,

km

Keith Miller, P.E. Sr. Public Health Engineer Orange County Health Dept. 124 Main St., Goshen, NY 10924 PH: 845-291-2331, FX: 845-291-4078 KMiller@OrangeCountyGov.com

From: Stacy Stieber [mailto:SStieber@LBGct.com]
Sent: Thursday, February 16, 2017 11:57 AM

To: Miller, Keith **Cc:** T. CUSACK

Subject: Clovewood Pumping Test Plan Village of South Blooming Grove

Keith,

We are planning to conducted a new pumping test program for proposed supply wells on the Clovewood Property in the Village of South Blooming Grove. The Village of South Blooming Grove has requested that we have OCDH and NYSDEC review the plan prior to starting the test. Therefore, I am forwarding the Pumping Test Plan (dated September 2016) for this current proposed well test for your review and comment. They have also requested that we send copies of the well logs. I have included logs for all of the onsite wells that we have. Note, Wells C-1, C-2, C-3 and C-13 are original to the property and we do not have copies of the logs for these onsite monitoring wells.

Thank you in advance for your time. Let me know if you have any questions or need me to send you a hard copy of the attached plan.

Thanks,

Stacy Stieber, CPG Associate/Hydrogeologist Leggette, Brashears & Graham, Inc.

4 Research Drive, Suite 204
Shelton, CT 06484
Direct Dial: (475) 882-1723
Office Phone: (203) 929-8555 ext. 1723
Fax: (203) 926-9140
sstieber@lbgct.com
www.lbgweb.com

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This message has been scanned for malware.

Stacy Stieber

From:

Stacy Stieber

Sent:

Thursday, February 23, 2017 10:07 AM

To:

'Garry, James (DEC)'

Cc:

T. CUSACK

Subject:

RE: Clovewood Pumping Test Plan Village of South Blooming Grove

Jim,

We are targeting around the end of March/early April to start the well testing. However, the start will be weather dependent. Precipitation is still below average in the area, even compared to summer conditions.

Stacy Stieber, CPG Associate/Hydrogeologist Leggette, Brashears & Graham, Inc.

4 Research Drive, Suite 204 Shelton, CT 06484 Direct Dial: (475) 882-1723

Office Phone: (203) 929-8555 ext. 1723

Fax: (203) 926-9140 sstieber@lbgct.com www.lbgweb.com

From: Garry, James (DEC) [mailto:james.garry@dec.ny.gov]

Sent: Tuesday, February 21, 2017 4:30 PM

To: Stacy Stieber **Cc:** T. CUSACK

Subject: RE: Clovewood Pumping Test Plan_Village of South Blooming Grove

Stacy,

The proposed pumping test for Clovewood is well conceived. Just one question. The report shows a December date for the test. When will the test be conducted? Is it possible to delay the test until the summer months? If not, how does the current winter precipitation compare to typical summer conditions?

Jim

From: Stacy Stieber [mailto:SStieber@LBGct.com]
Sent: Thursday, February 16, 2017 11:54 AM
To: Garry, James (DEC) < james.garry@dec.ny.gov>

Cc: T. CUSACK < TCUSACK@LBGct.com>

Subject: Clovewood Pumping Test Plan_Village of South Blooming Grove

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Jim,

We are planning to conducted a new pumping test program for proposed supply wells on the Clovewood Property in the Village of South Blooming Grove. The Village of South Blooming Grove has requested that we have OCDH and NYSDEC review the plan prior to starting the test. Therefore, I am forwarding the Pumping Test Plan (dated September 2016) for this current proposed well test for your review and comment. They have also requested that we send copies of the well logs. I have included logs for all of the onsite wells that we have. Note, Wells C-1, C-2, C-3 and C-13 are original to the property and we do not have copies of the logs for these onsite monitoring wells.

Thank you in advance for your time. Let me know if you have any questions or need me to send you a hard copy of the attached plan.

Thanks,

Stacy Stieber, CPG Associate/Hydrogeologist Leggette, Brashears & Graham, Inc.

4 Research Drive, Suite 204
Shelton, CT 06484
Direct Dial: (475) 882-1723
Office Phone: (203) 929-8555 ext. 1723
Fax: (203) 926-9140
stieber@lbgct.com
www.lbgweb.com

APPENDIX II

(1) COUNTY CARANGE (2) TOWN BLOOMING GROVE

(7) DEPTH OF WELL BELOW LAND SURFACE (led)

(13) MAKE & MATERIAL

(15) CHAMETTER

(16) LENGTH

in.

ft.

in.

BEN SEAL

E QUITIES

On Roverse) TEST#1

CLOVE RD. BLOOMING GROVE, NY .23.134N 074.09.851W

CASINGS

in.

ft. |

SCREENS

in.

(14) OPENINGS

(3) DEC Well Number 08207

WATER WELL COMPLETION REPORT

BROOKLYN, NY 11211

1n. [

fi.

In.

fL .

(12) GROUT / SEALING INTERVAL (1981) FROM

DATE MEASURED

TO 70'

in.

(43) LOG Ground Surface EL. <u>688</u> ft. above sea level Top Of Casing is located ______
ft. above (+) or below (-) ground surface TOP OF WELL 60 3-30-07 SANDE in. io. Haps Son SAND

BEDROCK

ft.	nt. (11.1	in.		SET 8"
(17) DEPTH TO TOP OF SCREEN, FROM TOP OF CASING (Feel)		70'		Casins
4 Y	IELD TEST				
(16) DATE 3 = 30-07	(18) DURATION OF TES	Γ			
(20) LIFT METHOD Pump Air Lift Bell	(21) ŚTABILIZED DISCHA	ARGE (GPM)	OR IN	[
(22) STATIC LEVEL PRIOR TO TEST ((bet/inches below top of casing)	(23) MAXIMUM DRAWIDO (IseUnches below to		8 0 5 16		
(24) RECOVERY (Time in hours/minutes)	(25) Was the water produ discharged away from	ced during the test n immediate area? Yes NoNo			FRACTURE
PUMP	INSTALLATION			- 1 1	Lkum
(26) PUMP (NSTALLED? YEB . NO	(27) DATE	(28) PUMP INSTALLER	280		75 3Pm
(29) TYPE	(30) MAKE	. (31) MOCEL			FRACTURE
(32) NAXIMUM CAPACITY (GPM)	(33) PUMP INSTALLATION FROM TOP OF CAS		320'	- 55	40 spm
				1 1	·
(34) METHOD OF DRILLING Grossy Gable Tool Gother HAMAGE	(35) USE OF WATER (See Instructions for				Fracture 70'8pm
(36) DATE DRILLING WORK STARTED	(37) DATE DRILLING WO		سيسا		JO'SPM
3-29-09	3 -3	0-07	325		. 7 - V1
(38) DATE REPORT FILED (38) REGISTERED COMPANY 3-30-7 NORTHER OF	illim Thi	NYRD /0195	2		
(41) CERTIFIED DRILLER (Print name)	(42) CERTIFIED DRILLE	R SIGNATURE *	- '. I	!	
MARK TUNUBULE	made	Tuluwe	410		
w B Indian blis designant I haroby office that	1) I am certified to supp	ervise water well drilling activities	sas .	TTOM OF I	HOLE
Hysigning mis occurrent thereby anum has a defined by Environmental Conservation Law §15- water well standards promulgated by the New Yo- perjury the information provided in this Well Com- stand that any false statement made herein is pur	1502; (2) this water we rk State Department of I	Health; (3) under the penalty of courage and complete, and I und	er- DA:	ししこみく	COPA
The state of the s					

LOCATION SKETCH - Indicate north

NEW YORK 9T	ATE DEPARTMENT OF ENVIRONMENTAL CONSER	VATION ' C	5
(1) COUNTY OR ANGE		(3) DEC W	ell Number
DITOWN BLOOMINGGEOUS		082	01
(1) OWNER	TER WELL COMPLETION REPORT		
(6) ADDRESS	ES LLC	(43) L ₍	
(6) LOCATION OF WELL (See Instructions On Reverse) TE	ST # 2 FET WELL & Z	Surface EL, 630 f	
and method used: CLOVE RD. BLOOD GPS Meep transposation 41.23.03's	J 094.10.141'W	Top Of Casing is loca ft. above (+) or below	
(7) DEPTH OF WELL BELOW LAND SURFACE (Ised) 3 50'	BELOW LAND SURFACE (lest) 80 4-3-07	TOP OF	WELL.
(e) DIAMETER In.	in. in. in.		Harp
(10) LENGTH 100 1. 1.	ft. a. in.		ROULDSES to
(11) GROUT TYPE I SEALING BEN SEAL	(12) GROUT/ SEALING INTERVAL (feet) FROM 0' TO 100' CREENS	80'	2 KK
(13) MAKE & MATERIAL	(14) OPENINGS	<u> </u>	L IM & Stone
(IB) DIAMETER in,	in. in.	100	SE+
(16) LENGTH ft.	ft.] ft.} (n.		
(17) DEPTH TO TOP OF SCREEN, FROM TOP OF CASING (Feet)		DEIVE -	
(18) DATE	LD TEST (19) DURATION OF TEST	DRIVE	
(20) EIFT METHOD [] Pump	(21) STAGULIZED DISCHARGE (GPM)		
(22) STATIC LEVEL PRIOR TO TEST (feekinches below lop of casing)	(23) MAXIMUM DRAWDOWN (Stabilized) ((cet/inches below top of casing)		
(24) RECOVERY (Time in hours/minutes)	(25) Was the water produced during the test discharged away from immediate spea? Yes No		
(26) PUMP INSTALLED?	ISTALLATION (28) FUMP INSTALLER	285	1023F
YES NO	(30) MAKE (31) MODEL		Fracture
(32) MAXIMUM CAPACITY (GPM)	(33) PUMP INSTALLATION LEVEL	298	200 grm
	FROM TOP OF CASING (Feel)		BOOKER
(34) METHOD OF DRILLING Rolary Gable Tool Gother Johnsoft	(35) USE OF WATER (See instructions for choices)		Limestone
(36) DATE DRILLING WORK STARTED 4.2.07 (38) DATE REPORT FILED (39) REGISTERED COMPANY	(40) DEC REGISTRATION NO.		Bottom
4-2-07 NORTHERN DRI	Wing INC NYRD 10177		
(41) CERTIFIED ORILLER (Printiname)	(42) CÉRTIFIEO DRILLER SIGNATURE *	360′	
MARK TUNNBULL	Max Tulune	BOTTOM C	F HOLE
defined by Environmental Conservation Law §15-150 water well standards promulgated by the New York perjury the information provided in this Well Complet	I am certified to supervise water well drilling activities as 2; (2) this water well was constructed in accordance with take Department of Health; (3) under the penalty of son Report is true, accurate and complete, and I undertable as a class A Misdemeanor under Penal Law §210.45.	DEVLLER	CORY
LOCATION SKETCH - Indicate north		···	
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		,	
	•		

(1) COUNTY ORANGE.
(2) TOWN BLOOMINGTONS



(3) DEC Well Number

City and the second sec				
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477 BEDFORD AV	& BROOK!	VAL NY 11211	Ground Surface EL. 674	ft. above sea level
axid Melriod used:		GROVE, NY	Top Of Casing is in ift, above (+) or be	ocated 18" low (-) ground surface
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(7) DEPYTH OF WELL BELOW LAND SURFACE (feet) 660	(B) DEPTH TO GROUNDWATER BELOW LAND SURFACE (HELD	15 5-17-07	TOP	DF WELL
C/	ASINGS			SALS
(9) DIAMETER G" In.	in_	in in in	16'	Book
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(11) GROUT TYPE/SEALING BEN SEAL	(12) GROUT / SEALING INTERVAL (Feb.) FRO	14 <u>0'</u> 10 <u>6 1'</u>		LIMESTONE
sc	REENS			& "CASIA"
(13) MAKE & MATERIAL	(14) OPENINGS		,	
(15) DIAMETER In.	ltt.	in. In.	61'	
(16) LENGTH ft.	ft,	ft. [In.	0.1	
(17) DEPTH TO TOP OF SCREEN, FROM TOP OF CASING			DEINE	860
	1 p = 0.00		SHOE	15 15
	LD TEST		ן שטייני ן	Hole
(18) DATE 5 - 18-07	(19) DURATION OF TEST		<u> </u>	440
(20) LIFT METHOD	(21) STABILIZED DISCHARGE (G	5		FRACTURE
(22) STATIC LEVEL PRIOR TO TEST (leekinches below lop of casing)	(23) MAXIMUM DRAWDOWN (Sta (feeVinches below top of cast)	(Sill/zed) 10)	80'	ce 25 gen
(24) RECOVERY (Time in house/minules)	(25) Was the water produced during discharged away from Immadia	og the test ale erea? Yes No		
PUMP II	ISTALLATION		· .	[
(28) PUMP INSTALLED? YES NO	(27) DATE	(28) PUMP INSTALLER		
(29) TYPE	(30) MAKE	(31) MODEL		
(32) MAXIMUM CAPACITY (QPM)	(39) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Fee	L II)		FRACIURE
			320'	Sc 50 50"
(34) METHOD OF DRILLING GROSPY Gable Tool Gother HAMAGE	(35) USE OF WATER (See instructions for chalges)	·		WENT TO
(36) DATE DRILLING WORK STARTED 5 - 16 - 67	(37) DATE DRILLING WORK CON	MPLETED	446	6"HAMME
(30) DATE REPORT FILED (30) REGISTERED COMPANY		(40) DEC REGISTRATION NO.		
S-16-07 NORTHERN DEL	LING INC	NYRD 10177		[
(41) CERTIFIED DRILLER (Print name)	(42) CERTIFIED DRILLER SIGNA	TURE *	600'	
MARK TUNNBUR	mad Ti			M OF HOLE
* By signing this document I hereby affirm that: (1)	I am certified to supervise v	vater well drilling activities as		
* by signing this document I hereby didn't that (1), defined by Environmental Conservation Law §15-15 water well standards promplyated by the New York perjury the information provided in this Well Complestand that any false statement made herein is punished.	State Department of Health;	(3) under the penalty of and complete, and I under-	DRILL	ER COPY
stand that any false statement made nerein is plints	HIGHE GR & LIGHT W LUBRELINES	titled services & content times - Damparine		

LOCATION SKETCH - Indicate north

The state of the s					
•	NEW YORK STA	TE DEPARTMENT O	F ENVIRONMENTAL CONSE	RVATION (-	1
(1) COUNTY DRAWS				(3) DEC	Well Number
(2) TOWN Bloom N		ER WELL COM	IPLETION REPORT	. <u> 08</u>	203
(4) OWNER			116		
S) ADDRESS	NE Equ	LITIES	L L C		LOG
477 B	EDFORD. AV	E BROG	KLYN, MIIZI	Ground Surface EL. 560	ft. above sea level
(d) LOCATION OF WELL (See Show LavLung V available and method used:	LOVE RD. B	Looming G	1 1 1	Top Of Casing is	located
(7) DEPTH OF WELL BELOW	llon 41.23 175	NO74.09.91			
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(9) DIAMETER (1)		in.	in. in.		SAND GRAUFL
(10) LENGTH	-	n l	ft. . in	40'	SAND LOOSE IN BOOK
(11) GROUT TYPE PSEALING	SEA L	l	FROM O TO 61	-	LIMPStone
(13) MAKE & MATERIAL	SC.	REENS (14) OPENINGS			CASHIM
(16) DIAMETER	In (<u>L</u>	in,] la.	61'	
(16) LENGTH		t. [ft. I In.		
(17) DEPTH TO TOP OF SCRE		<u> </u>		DRIVE	
	YIÉI.	D TEST			, ·
(18).DATE	-21-07	(18) DURATION OF TEST			FRACTURE
(26) LIFT METHOD	The state of the s	(21) STABILIZED DISCHARGE		7 001	15900
(22) STATIC LEVEL PRIOR TO	TEST	(23) MAXIMUM DRAWDOWN		90'	Se 17 J1
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(26) PUMP INSTALLED?	ES NO	(27) DATE	(28) PUMP INSTALLER		8" West
(29) TYPE		(30) MAKE	(31) MODEL	445'	
(02) MAXIMUM CAPACITY (GI	PMI	(33) PUMP INSTALLATION LE	EVEL .	- '	UERY
	·	FROM TOP OF CASING	(Feat)	510'	BROKEN
(34) METHOD OF DRILLING	o Coner HAMMER	(35) USE OF WATER (6ee instructions for chall	ces)		YETOW
(36) DATE BRILLING WORK	• .	(37) DATE DRILLING WORK		200*	OCANGE
(36) DATE REPORT FLED	(38) REGISTERED COMPANY	5-21	(40) DEC REGISTRATION NO.	JP.	Limestone
	V PORTHERD DF	Labor Too	NYRD: 10177	625'	Stobia
5-19-07 (41) CERTIFIED DRILLER (Pri		(42) CERTIFIED DRILLER SH	SNATURE*		† ·
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# = \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	and Thereby office that (1)	am certified to stinents	e water well drilling activities as	[M OF HOLE
defined by Environmen water well standards p	tal Conservation Law §15-150: romulgated by the New York S	2; (2) this water well w State Department of Hea ion Percet is this accur	as constructed in accurdance with	SWALL	eb cory
LOCATION SKET	CCH - Indicate north			•	1:
	•		,		
			· .		
1					

The section of the Committee of the Comm

(1) COUNTY OR SULLE		(3) DEC Well Number
12 TOWN BROWNINGSOND WA.	TER WELL COMPLETION REPORT	010251
(4) OWNER	C. O. C.	(45) WELL LOG
(5) ADDRESS	LANE OLL LEC	Depth to Bedrock 76 (ft. below
(6) LOCATION OF WELL (See Instructions On Reverse)	NROE NY 10949 (Check here Till address is same as above)	Ground Elevation (ft. above
ROUTE 2084 CLOVE RD	BLOOMING GROVENY 7A (8) TAX MAP NO.	sea level)
(7) LATITUDEALONGITUDE AND METHOD USED	(B) TAX MAP NO.	Top of Casing(ft. above (+) or below (-) land surface)
(6) DEPTH OF WELL BELOW LAND SURFACE (feet)	(19) DEPTH TO GROUNDWATER DATE MEASURED	
	BELOW LAND SURFACE (feet)	TOP OF WELL
(11) DIAMETER in.	. [:]	SAUD
(12) LENGTH Charles II.	ft. ft. in.	GE
(13) GROUT TYPE / SEALING	MA OPOLIT I OF ALVIO INTERVAL	40, 40,60
BEN SEAL	(feet) FROM 6 TO	cack
(15) MAKE & MATERIAL	(16) OPENINGS	10 200
(17) DIAMETER	<u> </u>	
in.	in. in. in.	BO CASING
(18) LENGTH	ft. ft. in.	- F
(19) DEPTH TO TOP OF SCREEN, FROM TOP OF CASING (Feet)		8" KEEP
The state of the s	LD TEST REGULATION	DENT PLAY
(20) DATE	(21) DURATION OF TEST	200 OR
(22) LIFT METHOD	(23) STABILIZED DISCHARGE (GPM)	VECAR
☐ Pump Air Lift ☐ Baller (24) STATIC LEVEL PRIOR TO TEST	(25) MAXIMUM DRAWDOWN (Sfabilizza)	
(leadinches pelow tob of casing)	(feet/inches below top of casing)	250' 4
(25) RECOVERY (Time in hours/minutes)	(27) Was the water produced during the test discharged eway from immediate area? Yes No	BROKE
	ISTALLATION	
(28) PUMP INSTALLED? YES NO	(29) DATE (30) PUMP INSTALLER	Rock
(26) PUMP INSTALLED?		Rock 175 1980
(28) PUMP INSTALLED? YES NO	(29) DATE (30) PUMP INSTALLER (32) MAKE (33) MODEL (35) PUMP INSTALLATION LEVEL	175 7PM
(28) PUMP INSTALLED? YESNO (31) TYPE (34) MAXIMUM CAPACITY (GPM)	(29) DATE (30) PUMP INSTALLER (32) MAKE (33) MODEL	125 1800
(28) PUMP INSTALLED? YESNO (31) TYPE (34) MAXIMUM CAPACITY (GPM) (35) METHOD OF DRILLING	(29) DATE (30) PUMP INSTALLER (32) MAKE (33) MODEL (35) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feat) INFORMATION (37) USE OF WATER	135 1900
(28) PUMP INSTALLED? YESNO (31) TYPE (34) MAXIMUM CAPACITY (GPM) C35) METHOD OF DRILLING C350 METHOD OF DRILLING	(29) DATE (30) PUMP INSTALLER (32) MAKE (33) MODEL (35) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feat) INFORMATION (37) USE OF WATER (Sae Instructions for cholosa)	175 1900 175 1900
(28) PUMP INSTALLED? YESNO (31) TYPE (34) MAXIMUM CAPACITY (GPM) (35) METHOD OF DRILLING Rotary Cable Tool Other Capacity Capac	(29) DATE (30) PUMP INSTALLER (32) MAKE (33) MODEL (35) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feat) INFORMATION (37) USE OF WATER (Sae kudrucklons for choices)	Rock 175 pr
(28) PUMP INSTALLED? YESNO (34) TYPE (34) MAXIMUM CAPACITY (GPM) (35) METHOD OF DRILLING Rodary Cable Tool Other Cable Tool (35) DATE DRILLING WORK STARTED (40) DATE REPORT FILED (41) REGISTERED COMPANY	(29) DATE (30) FUMP INSTALLER (32) MAKE (33) MODEL (35) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feat) INFORMATION (37) USE OF WATER (Sas kindruclons for choices) (39) DATE DRILLING WORK COMPLETED (42) DEC REGISTRATION NO.	135 1900 135 1900
(28) PUMP INSTALLED? YESNO (34) TYPE (34) MAXIMUM CAPACITY (GPM) (35) METHOD OF DRILLING ROMAY Cable Tool Other (38) DATE DRILLING WORK STARTED (40) DATE REPORT FILED (41) REGISTERED COMPANY	(29) DATE (30) FUMP INSTALLER (32) MAKE (33) MODEL (35) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feat) INFORMATION (37) USE OF WATER (Sas kindruclons for choices) (39) DATE DRILLING WORK COMPLETED (42) DEC REGISTRATION NO.	265*
(28) PUMP INSTALLED? YESNO (34) MAXIMUM CAPACITY (GPM) (35) METHOD OF DRILLING ROLLY CABLE Tool (35) DATE DRILLING WORK STARTED (40) DATE REPORT FILED (41) REGISTERED COMPANY (43) CENTIFIED DRILLER (MM name) **By slonion this document! heraby affirm that: (1) is	(25) DATE (20) MAKE (33) MODEL (35) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feat) (37) USE OF WATER (Sas instructions for choices) (39) DATE DRILLING WORK COMPLETED (42) DEC REGISTRATION NO. NYRD (44) DRATIFIED DRILLER SIGNATURE	365
(28) PUMP INSTALLED? YESNO	(29) DATE (30) PUMP INSTALLER (33) MODEL (35) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feat) INFORMATION (37) USE OF WATER (San Instructions for cholosa) (39) DATE DRILLING WORK COMPLETED (42) DEC REGISTRATION NO. NYRD (44) DERTIFIED DRILLER SIGNATURE TO Certified to supervise water well drilling activities as (2) this water well was constructed in accordance with tate Department of Health; (3) under the penelty of perjury	BOTTOM OF HOLE
(28) PUMP INSTALLED? YESNO	(29) DATE (30) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feat) INFORMATION (37) USE OF WATER (Sas hindruclons for choicas) (39) DATE DIRLING WORK COMPLETED (42) DEC REGISTRATION NO. NYRD (44) DERTIFIED DRILER SIGNATURE (45) THE WATER SIGNATURE (46) DEPARTMENT OF CHOICE AS INCIDING THE CONTROL OF CHOICE AS INCIDING THE CONTROL OF CHOICE AS INCIDING THE CHOICE AS INCIDING THE CONTROL OF CHOICE AS INCIDING THE CONTROL OF CHOICE AS INCIDING THE CHOICE AS INCIDING THE CONTROL OF CHOICE AS INCIDENT THE CONTROL OF CONTROL OF CHOICE AS INCIDENT THE CONTROL OF CONTROL	365
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(1) COUNTY Orange		(3) DEC	Well Number
	ER WELL COMPLETION REPORT	010	25/
OWNER		⁽⁴⁵⁾ WE	LLLOG
Simon Gelb CPC, (5) ADDRESS	1111	Depth to Bedrock	(ft. below land surface)
PO BOX 2020 MO (6) LOCATION OF WELL (See Institutions On Reverse)	NYOE NY 10949 (Check here 🔲 It address is sama as above)	Ground Elevation	
see first report #	010251	Top of Casing	(ft. above (+) or
(7) LATITUDE/LONGTIUDE AND METHOD USED	(B) (AXMAP'NO.	be	low (-) land surface)
(9) DEPTH OF WELL BELOW LAND BURFACE (Wel) 360	(10) DEPTH TO GROUNDWATER DATE MEASURED BELOW LAND SURFACE (feel)	TOP C	OF WELL
64	SINGS		
(11) DIAMETER in.	n. in. in.	250	white
(12) LENGTH IT.	ft, sn,	200	brown
(13) GROUT TYPE / SEALING	(14) GROUT / SEALING INTERVAL (16el), FROM TO		Heta Horphic
[1] [2] [2] [3] [4] [4] [4] [4] [4] [4] [4] [4] [4] [4	REENS	:	rock
(15) MAKE & MATERIAL	(16) OPENINGS	k 250	200 gpH
(17) DIVMETER in.	in, in, jn.		+100 9PM
(13) LENGTH	n, ft, in.	256	
ACT DEPTH TO TOP OF SCREEN FROM TOP OF CASING (Feet)	A. J	1265	+ 100 gpH
NI CONTRACTOR OF THE CONTRACTO	LDYEST	280	heam.
(20) DATE 8-11-1(v	(23) DURATION OF TEST	200	brown
(22) LIFT METHOD AFUN Beller	(CS) STABILIZED DISCHARGE (GPN) 500	* 280	+ 100gp4
(24) STATIC LEVEL PRIOR TO TEST (get/authors below top of testing)	(25) MAXIBUM DRAWDCWN (Statistical) (fact/inches below top of pasing)		lloop
(26) RECOVERY (Times in hours/infinites)	(27) Was the water produced during the lest oscharged sway from thruned area? Yes 740	300	Shale
PUMPI	NSTALLATION		
(28) PUMP INSTALLED?	(39) PUNIP INSTALLER		
(01) TYPE	(32) MANE (33) MODEL	1	
(SE) MAKINUM CAPACITY (GPM)	(35) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Foot)		
DRICLER	INFORMATION		1500 gpm
TOTOLOGY CALLING CUAL COLORS COTOCO	(State instructions for phritisals)		10121
(38) DATE DRILLING WORK STARTED	(39) DATE DRILLING WORK COMPLETED	- 	
148) DATE REPORT FILED (11) REGISTERED COMPANY	(62) DEC REGISTRATION NO.		
(43) CERTIFIED DRILLER (Print name)	NYRD 10004		
Lilliam Freu	William Loo	1	
I de Jan Cardinana mini Carina ancida de la 15 150	am certified to supervise water well drilling activities as 2: (2) this water well was constructed in accordance with State Department of Health: (3) under the penalty of perjury	BOTTC	M OF HOLE
water well standards promulgated by the new York the information provided in this Well Completion Relany talse statement made herein is punishable as a	nort is true, accurate and complete, and I understand that	NY	SDEC

well was drilled by someone else, we only deepened the well no additional casing put in

73.24 (3) DEC Well Number PICOUNTY CITARE 010829 Monroc 121 TOWN WATER WELL COMPLETION REPORT ISH WELL LOG Simon (selb Death to Bedrock Lot (IL below land surface OOO10949 Monroe NY. (fl. above sea (aval) Ground Elevation 16) LOCATION OF WELL 1844 Institutions of Reverse CLOUL Rd R4 2 (Cirack have [] Yardinası is same as obove [A (fi. above (+) or MONTE ATAX IMP NO P) LATTITUDE E CONSTIUDE AND METHOD USED

[17] LATTITUDE E CONSTIUDE AND METHOD USED below (=) land surface) (0) DEPTH OF WELL BELOW DATE HEARINGD NO DEPTHY CONCUMENTED LAND SURFACE (MM) DELOW LAND SURFACE (See) TOP OF WELL 280 CASINGS fine, course grey sorry (11) DIAMETER 1-21 12 in. in. iß. son grey. Silty doug 21-45 ings Lesions 21- pured a ħ. 100 13) GROUT TYPE I SEALING INCLEASED SEALING ENTERVAL FROM <u>20</u> to <u>Silveace</u>. 45-68 elry grave ! Bentonite SCREENS 16 MARE & MATESIAL 40-68 A THE OF EVALUES orange dry N/Agrabet (17) WAMETER 68 gray back in. ğı. IN FEMOLH 15. e. J ti. *176 190 black Shale UNIONALITY AND AREA OF BOX EAST AND THE OF CASING A PARTY 10 gpm 190-193 black shale VIELD YEST black shall state WIN OUTE THE TOTAL TEST 张193-194 EN BINER DEC DECHARGE CONV. +20 8b4 (Ax Les 210 brack shake C Paris C Berk 500 stand arouge (24) STATIC LENGL PHICH TO FEST (25) BAKIK PADRAYODAK (Section) + 20 800 Heaving as between top of course displantal tractor top of control brown black 210 225 (27, F is am water gaintental, my tak tool 2201 R.LCOMERY (Time to many in its fire व्यक्तावात्पुरची करावपूर्व चलाव निकास करिया करिया 50 gpm total PUMP INSTALLATION विष्युक्तिक aa5-a30 (24) POLYP MATALLECY 29, DATE CONFIDENCE TALLER YES. 230-231 Acouse COLLAND 1231 LUDDAY + abo gons grante 331 -347 ASIS TO STRUCT CAPACITY ASPARE OF PURPOSTALISTION LEVEL + StC QPH brown stained العالم والور PRINTER REPARRIED FOR 360 BRILLER INFORMATION granite grante grante fignate redecomica himselson in 15 hims brown with grante m 200 g.p.4 howen middle OT, USE OF SUCTE DA CESTED OF BRAILING Dual وأعاك وماير Destruction descent DOMESTIC Rotany garay 🕒 Debba Yeari nodic 🗽 CHARTE DAILOS I WORK STARTED GREEN CONTRACTOR CONTRACTOR Delo 8-1-16 8-2-14 July 074 Cling Sullian Pullian NAME REPORT PLED 141) REGISTERED COMPANY NO DEGREGATION IS NYRD 10009 274-290 Eceu ansi mucialy seam HAN CERTIFIED DIVILER (P.M. SAIR) 290-300 Villiam die) Illia By signing this document I haveby affirm that U/I am certified to supervise water well drilling activities as defined by Environmental Conservation Law 15-1502; (2) this water well was constructed in accordance with varier well stendards promulgated by the New York State Department of Health, (3) under the penalty of pagary the information provided in Into Well Comptetion Report is true, accurate and complete, and I understand that 500 gpm told any faise statement made herein is punichable as a Class A Misrlementor under Penal Law 5210.45. MYSDEC LOCATION SKETCH - Indicate north Clove Rd 208

TOWN BLOOMINGGOODS WA		(3) DEC Well Number
	ATER WELL COMPLETION REPOR	010250
OWNER	COA	(45) WELL LOG
ADDRESS MONRI	DE, NY, 12929	Depth to Bedrock (ft. below
P.O. BOX 2020 VECU) LOCATION OF WELL (See Instructions On Reverse)	(Check here il address is same as eboy	Ground Elevation 16 (ft. above
ROUTE 208+CLOVE A	سمال خن ۵ م	sea level) Top of Casing (ii. above (+) or
Pars Map 1 30 555	- B. 214 W	below (-) land surface)
DEPTH OF WELL BELOW LAND SURFACE (feet)	(10) DEPTH TO GROUNDWATER DATE MEASUR BELOW LAND SURFACE (Gel)	TOP OF WELL
DIAMÈTER	PASS SERVICE TO THE PROPERTY OF THE PASS O	<u> </u>
In.	in. In. in	Hospi
60 R.	rt. rt. in	50 (300 F. 260)
GROUT TYPE / SEALING BEN SEAL	(14) GROUT/SEALING INTERVAL 6 TO 68	A EQUAL
MAKE & MATERIAL	SCREENS : STATE STATE OF THE ST	The series
) DIAMETER		60 (JAN)
in.	in. In. In.	The state of the s
LENGTH ft.	ft. ft. in.	8 perve
DEPTH TO TOP OF SCREEN, FROM TOP OF CASING (Fee	0	SHOP
The state of the s		- in less
8/5/14	(21) DURATION OF TEST 4 HR	320' ROACHOR
LIFT METHOD Artific Baller	(23) STABILIZED DISCHARGE (GPM)	Post
STATIC LEVEL PRIOR TO TEST (feet/inches below top of casing)	(25) MAXIMUM DRAWDOWN (Slabilized) (rectinches below top af casing)	7500
RECOVERY (Time in hours/minules)	(27) Was the weter produced during the test discharged away from invited late area? Yes No.	
PUMP	INSTALLATION	- LCGE
PUMP INSTALLED? YES NO	(30) PUMP INSTALLER	ascuses
TYPE	(32) MAKE (33) MODEL	348, 360, 20
MAXIMUM CAPACITY (GPM)	(35) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feet)	Tolar 1
	RINFORMATION	_ Vien
METHOD OF DRILLING Rolary Cable Tool Other	(37) USE OF WATER (See Instructions for choices)	DO SOFT BOOK
MINIST TO SECURITION OF	(39) DATE DRILLING WORK COMPLETED	
The state of the s	Q-L-14	CULLY POPULATION
DATE DELILLING WORK STARTED 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(42) DEC REGISTRATION NO:	- Proposition 10 300
DATE DRILLING WORK STARTED 2.2.4.4 DATE REPORT FILED (11) REGISTERED COMPANY	(42) DEC REGISTRATION NO: NYRD OART (44) CERN*IED DRILLER SIGNATURE	10 10 10 10 10 10 10 10 10 10 10 10 10 1
DATE REPORT FILED (41) REGISTERED COMPANY CERTIFIED DRILLER (Phil name) A signification bis document I hereby affirm that: (1)	NYRD 16/17 (4) CERTIFED DRILLER SIGNATURE MACA Track Lam certified to supervise water well drilling activities as	BOTTOM OF HOLE
DATE PRILLING WORK STARTED AT IT REPORT FILED AT IT REGISTERED COMPANY A Signifing this document I hereby affirm that: (1) need by standards promulated by the New York	(44) CERM*IED DRILLER SIGNATURE I am certified to supervise water well drilling activities as a coordinoe with K State Department of Heielth; (3) under the penalty of peri	ury)
DATE REPORT FILED (41) REGISTERED COMPANY CERTIFIED DRILLER (Print name) y signifig this document I hereby affirm that: (1) ned by Environmental Conservation Law 15-15 er well standards provided in this Well Completion R	(44) CERNITED DRILLER SIGNATURE I am certified to supervise where well drilling activitiés as 502; (2) this water well was constructed in accordance with k State Department of Héelth; (3) under the penalty of peripor is true, accurate and complete, and 1 understand that a Class A Misdemeanor under Penal Law §210.45.	ury
DATE REPORT FILES (41) REGISTERED COMPANY CERTIFIED DRILLER (Print name) y signling this document I hereby affirm that: (1) and by Environmental Conservation Law 15-15 are well standards promulgated by the New York Information provided in this Well Completion Reviews (1) and the results of the New York (1) and the results of the New York (1) and the results of the New York (1) and the results with the New York (1) and the results of the New York (1) and the results will be resulted to the New York (1) and	(44) CERNITED DRILLER SIGNATURE I am certified to supervise where well drilling activitiés as 102; (2) this water well was constructed in accordance with k State Department of Héelth; (3) under the penalty of peripor is true, accurate and complete, and 1 understand that a Class A Misdemeanor under Penal Law §210.45.	OWNER
DATE REPORT FILES (41) REGISTERED COMPANY CERTIFIED DRILLER (Print name) y signling this document I hereby affirm that: (1) and by Environmental Conservation Law 15-15 are well standards promulgated by the New York Information provided in this Well Completion Reviews (1) and the results of the New York (1) and the results of the New York (1) and the results of the New York (1) and the results with the New York (1) and the results of the New York (1) and the results will be resulted to the New York (1) and	(44) CERNITED DRILLER SIGNATURE I am certified to supervise where well drilling activitiés as 102; (2) this water well was constructed in accordance with k State Department of Héelth; (3) under the penalty of peripor is true, accurate and complete, and 1 understand that a Class A Misdemeanor under Penal Law §210.45.	OWNER
DATE REPORT FILES (41) REGISTERED COMPANY CERTIFIED DRILLER (Print name) y signling this document I hereby affirm that: (1) and by Environmental Conservation Law 15-15 are well standards promulgated by the New York Information provided in this Well Completion Reviews (1) false statement made herein is punishable as a second control of the control	(44) CERNITED DRILLER SIGNATURE I am certified to supervise where well drilling activitiés as 102; (2) this water well was constructed in accordance with k State Department of Héelth; (3) under the penalty of peripor is true, accurate and complete, and 1 understand that a Class A Misdemeanor under Penal Law §210.45.	OWNER
DATE REPORT FILES (41) REGISTERED COMPANY CERTIFIED DRILLER (Print name) y signling this document I hereby affirm that: (1) and by Environmental Conservation Law 15-15 are well standards promulgated by the New York Information provided in this Well Completion Reviews (1) false statement made herein is punishable as a second control of the control	(44) CERNITED DRILLER SIGNATURE I am certified to supervise where well drilling activitiés as 102; (2) this water well was constructed in accordance with k State Department of Héelth; (3) under the penalty of peripor is true, accurate and complete, and 1 understand that a Class A Misdemeanor under Penal Law §210.45.	OWNER
DATE REPORT FILES (1) REGISTERED COMPANY CERTIFIED DRILLER (Print name) y signling this document I hereby affirm that: (1) ined by Environmental Conservation Law 15-15 far well standards promulgated by the New York Information provided in this Well Completion Review of the Standards promulgated by the New York Information provided in this Well Completion Review of the Standards promulgated by the New York Information provided in this Well Completion Review of the Standards provided in this Well Completion Review of the Standards provided in this Well Completion Review of the Standards provided in this Well Completion Review of the Standards provided in this Well Completion Review of the Standards provided in this Well Completion Review of the Standards provided in the Standard Provided Information (1) and the Stand	(44) CERNITED DRILLER SIGNATURE I am certified to supervise where well drilling activitiés as 102; (2) this water well was constructed in accordance with k State Department of Héelth; (3) under the penalty of peripor is true, accurate and complete, and 1 understand that a Class A Misdemeanor under Penal Law §210.45.	OWNER
DATE REPORT FILES (1) REGISTERED COMPANY CERTIFIED DRILLER (Print name) y signifing this document I hereby affirm that: (1) fined by Environmental Conservation Law 15-15 fair well standards promulgated by the New York	(44) CERNITED DRILLER SIGNATURE I am certified to supervise where well drilling activitiés as 102; (2) this water well was constructed in accordance with k State Department of Héelth; (3) under the penalty of peripor is true, accurate and complete, and 1 understand that a Class A Misdemeanor under Penal Law §210.45.	OWNER

1) COUNTY 6	$\boldsymbol{\leftarrow}$		EC Well Number
2) TOWN BACONTUS GROVE	WATER WELL COMPLETION REPOR	_τ <u> 0/</u>	0195
A) OWNER			WELL LOG
5) ADDRESS	MONROE, NY 10949	Depth to Sedn	ock_ 96 * (ft. below
TOTION AUAU	LOUDING	Ground Flaund	land surface)
(6) LOCATION OF WELL (See Februcions On Reverse)	CAROUTE 3 (Chapk here II if address in same as abov	Otomic Elevan	sea level)
7) LATITUDEÁLONGITUDE AND METHOD USED	(E) TAX MAP NO.	Top of Casing	(ft. above (+) or below (-) land surface)
9) DEPTH OF WELL BELOW	(10) DEPTH TO GROUNDWATER DATE MEASUR	ED	
LAND SURFACE (food) S25	BELOW LAND SURFACE (foot) 46	ў то	P OF WELL
11) DIAMETER	CABINGS		<u> </u>
2 in.	in. in. in.		Haropau
12) LENGTH ft.	ft. ''ft. In	<u> </u>	BULDE
13) GROUT TYPE / SEALING	(14) OPOLIT / SEM ING INTERVAL	90	to Boonst
BBN 9EAL-	(feet) FROM G TO 324		PEDROLL
15) MAKE & MATERIAL	(10) OPENINGS	1	RIL
			LINESTON
17) DIAMETER	in, In. In.		Se Ash
18) LENGTH		104	
ft. 18) DEPTH TO TOP OF SCREEN, FROM TOP OF CASI	fL fL fL in.	<i>بر بر</i> ا	
lath .		DEVE	
20) DATE	(21) DURATION OF TEST	~ 5 A.L	7
7/29/84	SHR		
22) LIFT METHOD Arunp Arunt : C	(23) STABILIZED DISCHARGE (GPM)		يره فسيري ال
24) STATIC LEVEL PRIOR TO TEST	(25) MAXIMUN DRAWDOWN (Signifized)	210	BOOKEN
(feeUnches below top of casing) (8) RECOVERY (Time in hours/minutes)	(feat/inches below top of casing) (27) Was the water produced during the test	_ ·.	
(a) MECOAEKA (titile ili legualistinites)	discharged away from immediate area? Yes No		ROKEN
28) PUMP INSTALLED?	(29) DATE (30) PUMP INSTALLER		UP,
YEB NO	(sa) DATE (sa) POMP MASIALER		ROCK
31) TYPE .	(32) MAKE (33) MODEL		300#
34) MAXIMUM CAPACITY (GPM)	(35) PUMP (NSTALLATION LEVEL	┥ .	320
and the stranger	FROM TOP OF CASING (Fee) RILLER INFORMATION		
96) METHOD OF DRILLING	(37) USE OF WATER	-	
Rolary Cable Tool Ither 1888 DATE DRILLING WORK STARTED		_	
3-28-14	(39) DATE DRILLING WORK COMPLETED		· ·
(41) REGISTERED COMP	A NVDD A 15		
3) CERTIFIED DRILLER (Print name)	(4) CERTIFIED DRELER SIGNATURE		Π
March Turinge	Mark Turker	325	() [
By signing this document I hereby affirm the effect by Environmental Conservation Law	et; (1) I am certified to supervise water well drilling activities as 15-1502; (2) this water well was constructed in accordance with		OM OF HOLE
ne information provided in this Well Comple	w York State Department of Health; (3) under the penalty of perjution Report is true, accurate and complete, and i understand that		
ny raise statement made herein is punishat	ble as a Class A Misdemeanor under Penal Law §210.45.	011 C	WNER
LOCATION SKETCH - Indicate north			
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	موار مستقد والوالي		
· HAR			
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			. 10
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COUNTY OPINGE			(3) DEC	Well Number
TOWN Blooming Grove W	ATER WELL COMPLET	ION REPORT	010	2192
OWNER		ION ICE OICE	(45) W	ELL LOG
ADDRESS C	PC. LLC	·-··	Depth to Bedrock	
	MONROE NY I	0949	Dapin to Bedrock	land surface
LOCATION OF WELL (See Instructions On Reverse)	78.208+EIOV6400	l'address le name as above)	Ground Elevation	(ft, above sea level)
LATITUDE LONGITUDE AND METHOD USED	C-O 6 TAXMAP NO	11 Cirling	Top of Casing	(ft. above (+) or
GP9 - Map 44 - 22 - 675 - A	34.10. 147 L)	• •		elow (-) land surface)
DEPTH OF WELL BELOW	(10) DEPTH TO GROUNDWATER BELOW LAND SURFACE (1641)	DATE MEASURED	TOD	
	CASIOS HITTER CONTROL	6'23-14	0'1	OF WELL
DIAMETER	1 1			545 11.
LENGTH In 10"				16'14 CEST
16 th 40	n. n.	in.		BEDROCK
GROUT TYPE / SEALING	(14) GROUT / SEALING INTERVAL	то 46"		SCT 10"
BEO SEAL	(feel) FROM C		40	19.40.
MAKE & MATERIAL	(16) OPENINGS	11010179179179179	,	7
	<u> </u>		10"	
DIAMETER in.	in. In.	iņ.	DRIVE	
LENGTH			SHOP	
ft.	ft. - ft.	ln,	٠.	
DEPTH TO TOP OF SCREEN, FROM TOP OF CASING (F	991)		1	
	AGETO LEZE.	41.4		
DATE / / JA/14	(21) DURATION OF TEST	•		1
LIFT METHOD	(28) STABILIZED DISICHARGE (GPM)		*	COLCTURE
□ Pump ② Air Lift □ Bel			210'	FRACE
STATIC LEVEL PRIOR TO TEST (feel/inches below top of casing)	(25) MAXIMUM DRAWDOWN (Stabilizad) (feet/inches below top of casing)		2.0	, 5 gp
RECOVERY (Time in hours/minutes)	(27) Was the water produced during the test		,	•
Pink	discherged away from immediate eree?	Yes No		1:
PUMP INSTALLED?		PINSTALLER		1.
YES NO			•	NO _
TYPE	(32) MAKE (33) MOI	DEL		FRACTURE
MAXIMUM CAPACITY (GPM)	(85) PUMP INSTALLATION LEVEL		1	•
5 500	FROM TOP OF CASING (Feet)		1	
METHOD OF DRILLING	(37) USE OF WATER		· /	1 .
Rotary Cable Tool F Other HASSIA	(See instructions for choices)	TWELL		
DATE DRILLING WORK STARTED	(39) DATE DRILLING WORK COMPLETED			
DATE REPORT FILED (41) REGISTERED COMPANY	(42) DEC F	EGISTRATION NO.		
5-15-14 Lorthern	CALL CALLO	D 10177	المماء	
MARK Tumbul	(44) CERTIFIED DRILLER SIGNATURE	11	6.20	
signing this document I bereby affirm that: (1) I am certified to supervise water well d	illing activities as	BOTTON	OFHOLE
ned by Environmental Conservation Law 15- er well standards promulgated by the New Yo	ork State Department of Health; (3) unde	r the penalty of perjury /		
information provided in this Well Completion false statement made herein is punishable a	Report is true, accurate ànd complete, ar s a Class A Misdemeanor under Penal Li	sw §210.45,	OW	NER '
		10/2011		
CATION SKETCH - Indicate north			•	
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•	10 to	- - a - I	•	
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	:	•		

1) COUNTY ORANGE			(3) DEC V	Well Number
TOWN BLOOMING SPONEWA	TER WELL COME	I ETION DEPORT	010	194
OWNER	CPC LLC	· ·	⁽⁴⁵⁾ WE	LL LOG
Simon (sci)	MONROE, N		Depth to Bedrock	(fi. below land surface
LOCATION OF WELL (See Instructions On Reverse)	(Check	(evode as emes al saerbbe (i 🔲 erent	Ground Elevation	
COUTE 308 4 CLO JATITUDE/LONGITUDE AND METHOD USED	VERI BLOOM	11W6 GROVE, NY	Top of Casing	(ft. above (+) or ow (-) land surface)
COPS Map 41.28. 714 N 074	(10) DEPTH TO GROUNDWATER	DATE MEASURED	100)	ow (-) iano sunace)
LAND SURFACE (IGG) 745	BELOW LAND SURFACE (feet)	80 7-10-14	тор о. 6 * I	F WELL
1) DIAMETER 4 in.	1	in In.		HOLD
2) LENGTH		ft. in.	4.7	MAN MARES
3) GROUT TYPE / SEALING	(14) GROUT / SEALING INTERVAL	1	<u> 40'</u>	er suk
BED SCAL		Trees Aufrisch van Lift practyge		set
S) MAKE & MATERIAL	(16) OPENINGS		loi'	8"000
) DIAMETER	in.	ln. in.	7	-
) LENGTH	rt.	ft, In.	8 mane	
DEPTH TO TOP OF SCREEN, FROM TOP OF CASING (Fab			SHOE	ľ
711	IELD TEGY	us L		THERES
7-10-14	(21) DURATION OF TEST		490	8900
LIFT METHOD Ar Lift Baller	(23) STABILIZED DISCHARGE (GP	M)	7	
) STATIC LEVEL PRIOR TO TEST (feel/inches below top of casing)	(25) MAXIMUM DRAWDOWN (Steb) (feetfinches below top of passing		. ,,	
B) RECOVERY (Time in hours/minutes)	(27) Was the water produced during discharged away from immediate		•	
	NSTALLATION (28) DATE	(30) PUMP INSTALLER		
PUMP INSTALLED? YES NO	•			
) TYPE	(32) MAKE	(33) MODEL		
) Maximum Capacity (GPM)	(35) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feet)	1.5		
METHOD OF DRILLING	R INFORMATION (37) USE OF WATER	3.5		
Rotary Cebie Tool Other	(5ee Instructions for choices)	TEST LOCAL		
7-8-14	J. 10. 14			
7-4: 14 CORETRED COMPANY	BILL THE	NYRD 40 17		
CERTIFIED DRILLER (Print name)	(44) CELTIFIED DRILLER SIGNATU	JRE ·	145	45 ·
y signing this document I hereby affirm that: (1) lined by Environmental Conservation Law 15-15	02; (2) this water well was con:	structed in accordance with	воттом	OF HOLE
ter well standards promulgated by the New York information provided in this Well Completion Ri y talse statement made herein is punishable as	port is true, accurate and comp	lete, and I understand that	OWN	IE O
		10/2011		
OCATION SKETCH - Indicate north				
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•		<i>.</i> ∳		
· · · · · · · · · · · · · · · · · · ·			¥	

(1) COUNTY ORANGE			•	(3) DEC	Well Number
(2) TOWN BLOOMING BUE WA	TER WELL COM	F IPI FTION REDA	ב חר	010	193
(4) DWNER	CDC	" ELTION KET	<u> </u>	(45) W	ELL LOG
(5) ADDRESS	CPC LI		Dept		(ft, below
P. D. BOX 2020 MON (6) LOCATION OF WELL (See Instructions On Reverse)		944 eck here □ If address is same as	ebove) Grou	ınd Elevation	land surface)
ROUTE 208 & CLOVE R	D BLOOM	LAGGROVE,	M'y/	of Casing _	sea level)
KGPB - MBD 41. 80 - 189'N -07	1.69.632W	<u> </u>	<u></u>		ow (-) land surface)
(0) DEPTH OF WELL BELOW LAND SURFACE (feet)	(10) DEPTH TO GROUNDWATE BELOW LAND SURFACE (66	R DATE MEA		TOP (OF WELL
(11) DIAMETER	ASINGS	director selections		0'	1000
In.	in.	in.	in.		HARDPAN
ft.	fL	ft.	In.	50'	Boulder
(13) GROUT TYPE / SEALING	(14) GROUT / SEALING INTERV (feel) FROM		_		, man (mar) (man)
(15) MAKE & MATERIAL	GREENS:	affices (45) erromation for	111611		Cor 8 4
	(16) CPENINGS		_	-31°	CASIN 6
(17) DIAMETER	iní.	in.	in.	* 7	1
(18) LENGTH	ft.	n.	in. 8		
19) DEPTH TO TOP OF SCREEN, FROM TOP OF CASING (Feel)		- '''	<u>""-</u>	SHOT	
XII	LO TEST MALLS				
20) DATE 7-1-124	(21) DURATION OF TEST				
22) LIFT METHOD AIR LITH Baller	(23) STABILIZED DISCHARGE (C	PM)			*****
24) STATIC LEVEL PRIOR TO TEST	(25) MAXIMUM DRAWDOWN (86)		,	<u> </u>	7.4.4.2
(feet/inches below top of casing) 26) RECOVERY (Time in hours/minutes)	(fast/inches below top of cas). (27) Wee the water produced during		<u> </u>		
DI IRAD-II	discharged away from Immedi			.	
28) PUMP INSTALLED? YES NO	(28) DATE	(30) PUMP INSTALLER].
91) TYPE	(32) MAKE	(33) MODEL		.	12
34) MAXINUM CAPACITY (GPM)	(35) PUMP INSTALLATION LEVEL				1.6.50
	FROM TOP OF CASING (Fee	0		.	FRACTURE
6) METHOD OF DRILLING	(37) USE OF WATER.	·		,	Rock
Rolary Cable Tool : Other AAMSS	(39) DATE DRILLING WORK COM	TEST WELL		100	125
6:28-14	7-1-14	4			SOUKEN)
6-89-14 Exce Here Di		NYRD 6 177	_		UP
3) CERTIFIED DRULLER (Print name)	(44) CERTIFIED DRILLER SIGNAT	URE '	\$	10	MEK
By signing this document I hereby affirm that: (1) I a signed by Environmental Conservation Law 15-1502	: (2) this water well was con	istructed in accordance wil	(h .	воттом	OF HOLE
rater well standards promulgated by the New York S is information provided in this Well Completion Repo	tate Department of Health; ort is true, accurate and com	(3) under the penalty of peoplete, and I understand the	riury		
ny false statement made herein is punishable as a C	lass A Misdemeanor under		0/2011	OWN	ER
OCÁTION SKETCH - Indicate north			- · · · · ·		
•					
		,			

CONMING GROSS

006		(3) DEC Well Number
OCBNA		
BLOOMILAROUS WATE	R WELL COMPLETION REPORT	
FEMACE F		(45) WELL LOG
TAC LIC		Depth to Bedrock 30 (ft. below
ACCRESS D IZ	2020 MONDONE AN	land surface)
CLOVEN P. C. BOX	(Check here address is same us above)	Ground Elevation 9/4 (ft. above sea level)
S LICATION OF WELL (See Instructions On Reverse)	ONC 6 D	Top of Casing /8 (ft. above (+) or
ATTENDERONGITUDE AND METHOD USED	(8) TAX MAP NO.	below (-) land surface)
J 22.432'NO140	9-933W	
The state of the s	(10) DEPTH TO GROUNDWATER DATE MEASURED SECON LAND SURFACE (set)	TOP OF WELL
750	SINGS	911
The second secon		TO BEODE
	n. in. in.	30 TOBEODO
4.20	t. nt. ft.	50 Winestor
	The second secon	356
BEN SEAL	(14) GROUT / SEALING INTERVAL O' TO 50'	E GRANTANT
SO SO	REENS	DIRICHIE 8
19 MATERIAL	(16) OPENINGS	418
Agencies of the second	A second	10 Ference by
in.	in. in.	
:ELENGTH	ft.	35 9 10 10
j.ke j	ft. tt. tt.	Fraction
(19) DEPTH TO TOP OF SCREEN, FROM TOP OF CASING (Feet)		1 (25
YIE	LD TEST	125 G are 4 15+
(20) DATE \$ 15	(21) DURATION OF TEST R HR	90 90
Bo-2-10	(23) STABILIZED DISCHARGE (GPM)	
(22) LIFT METHOD Pump & Air Lift Baller	150	no monto
Constitution of the consti	මුම් දැලපුරුවල අයතුරුව කුතුරුවල වියාග කරේ අතුරුවලට සහ සම්බන සහ වේ කෙරෙවල.	Fraction 440'
1865 - 10000 000 00 00 15 16 555.02	(27) Was the water produced during the test	
(26) RECOVERY (Time in hours/minutes)	discharged away from Immediate area? Yes NoNo	Lanuel Januel
PUMP	NSTALLATION	INCREASING TO 125 GEN FROM PROCEUPER DI
(28) PUMP INSTALLED?	(29) DATE (30) CERTIFIED PUMP INSTALLER	INCREAST WIRK AS
YES NO	(32) MAKE (33) MODEL	Paron Francis
(31) TYPE	(2)	1262
(34) MAXIMUM CAPACITY (GPM)	(35) PUMP INSTALLATION LEVEL FROM TOP OF CASING (Feat)	610 to 615
		BRAKEN TO CLOUN
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	(37) USE OF WATER	90m sou "
(36) METHOD OF DRILLING Relary Cabin Tool Cher Lam Mc	read instructions for checks)	1000
(38) DATE DRILLING WORK STARTED	39 DATE DRILLING WORK COMPLETED	DRICE TO 1750
7-29-15	8-6-15	- No french 17 13+71"
AT DATE REPORT FLED AT REGISTERED COMMANY	De William NYRD DITT	
1-98-8 VOCIATION	AT COLUMN TO THE PARTY OF THE P	150
The second secon	may will	
• By a grant his document (hereby affirm thet: (1)	I am certified to supervise water well drilling activities as 102; (2) this water well was constructed in accordance with a State Department of Health; (3) under the penalty of perjure the penalty of pena	BOTTOM OF HOLE
defined by Environmental Conservation Law	- Charles (3) under the penalty of DSRU	iry
the information provided in this Well Completion R	Commit Mediamagner Inder Pana Law \$211.45	HYSDEC

1 COUNTY TRAINS				CEANOSO DE	Well Number
12) TOWN BOOMINERS	WATER WELL	COMPLETION	REPORT		<u>*</u>
CPC LLC			Alexandra de la companya de la comp	16 S	ELL LOG
P. D. Aox 2020	MONRDE	NY 109	49	Depth to Bedrood	(ft. below land surface)
(6) LOCATION OF WELL (See Instructions On Reverse)	136 15 15 15 15 15 15 15 15 15 15 15 15 15	CLOVE	is same as above)	Ground Elevation	775 (ft. above sea level)
A GPS D WOULD AND METHOD USED		S TAX MAP NO	<i>KU</i> .	Top of Casing	(ft. above (+) or pelow (-) land surface)
1 SEAL SE VET SETAV		NEW YEAR	DATE MEASURED	ete ti seessa settesid tii <mark>kii see</mark> y <u>irii sa kii seessa seessa tii s</u> eessa tii seessa sees	
LAND SURFACE feet 826	CASINGS	Hos test 96	A CONTRACTOR OF THE PARTY OF TH	TOP	OF WELL
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(13) GROUT TYPE / SEALING	(14) GROUT SEALING	SATERIAL AL	45	1	Linder
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(15) MAKE & MATERIAL	(16) OPENINGS	and the second 		7	J 23. V
(17) DIAMETER	1		en e	VY R	
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ft. (19) DEPTH TO TOP OF SCREEN, FROM TOP OF CASII	ft.	ft.	ft.	J I''	prosto our
TO OF SCHEEN, FROM TOP OF CASII				in d	1926-
(20) DATE	YIELD TEST (21) DURATION OF TES	ST		150_	<u>e</u>
(22) LIFT METHOD	AP	L.			- 16
	(23) STABILIZED DISCH	TARGE (GPM)			TRACTURA SO
(24) STATIC LEVEL PRIOR TO TEST (feet/inches below top of casing)	(25) MAXIMUM ORAWD (feet/inches below b			. "	John
.15) RECOVERY. Ture in householdes	27 Alex the weder shad, discharged away fro			720	
	UMP INSTALLATION				9
(28) PUMP INSTALLED? YES NO	(29) DATE	(30) GERTIFIED P	UMP INSTALLER		
(31) TYPE	(32) MAKE	(38) MODEL		;	
(34) MAXIMUM CAPACITY (GPM)	(35) PUMP INSTALLATI FROM TOP OF CAS			<u> </u>	an
	RIECER INFORMATION	THE RESERVE OF THE SECOND SECO			fractum
(36) METHOD OF DRILLING Rotary Cable Tool Cither HOTA	(37) USE OF WATER (See instructions to	ir choloec)			i.
(38) DATE DRILLING WORK STARTED	(39) DATE DRILLING W	ORK COMPLETED	The Control of the Co		
(40) DATE REPORT FILED (41) REGISTERED COMP.	ANY	1(42) DEC REGISTR	ATION NO.		
(43) CERTIFIED DRILLER (Print name)	(44) CERTIFIED DRILLE	TAL NYRD /		SXIN!	
Made Turasur * By signing this document I hereby affirm the	et (1) I am cartified to super	Visa water wall drilling a	ethylipe ac	- 840	
defined by Environmental Conservation Law water well standards promulgated by the Ne	15-1502; (2) this water well	was constructed in acc	ordance with	вотто	M OF HOLE
the information provided in this Well Completion false statement made herein is punishal	tion Report is true, accurate	and complete, and I und	derstand that	NY	SDEC

Gerksmith Euginest nothing ind Mudden Wil Bod Mary Line

COUNTY OROUGE			(3) DEC We	ll Number
3	R WELL COMPLET	ON REPORT	(45) WELI	106
OWNER			,	_ /
S) ADDRESS	The second secon	Name of the second seco	Depth to Bedrock 6	(ft. below land surface)
0 0 004 2020	MONROE, N	<u> </u>	Ground Elevation	(ft. above
3) LOCATION OF WELL (See Instructions On Reverso) Wile	# 16 (Check here L)	feddress is some as above)	- 18	sea level) (ft. above (+) or
- UKT TURE VON GETTER AND METHOD USED	(8) TAX MAP N) ·	Top of Casing L belo	w (-) land surface)
500 = 100 MI, 22, 63 10 074.5	14. Jay M	DAYE MEASURED	the state of the s	management contribution in the contribution of
CONCISCOPPAGE FACE	10: DEPTH TO GROUNDWATER BELOW LAND SURFACE (See!) 30	1/13/15	TOP OF	WELL
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IS DIAMETER V	in.	in.	50	to Resid
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12) FENGTH SS &		The second secon	Sper	6,00
TO DE CLEEN SELVE	THE SECOND STATE OF THE SE	- 65		
BEN SERC	REENS		119	Como voya
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	The state of the s	And the second s	De Ne	SEX
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(18) LENGTH	ft.	ft:		6 70
ft.	ft. n.	The state of the s	ار	Profile
(19) DEPTH TO TOP OF SCREEN, FROM TOP OF CASING (Feet)		:	045	
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(20) DATE	(21) DURATION OF TEST		400.	
(22) LIFT METHOD	(23) STABILIZED DISCHARGE (GPM)	AND THE RESIDENCE OF THE PARTY		
Pump WArLiff Li Bases	25 HERRING MEDIA AND SAND BOSS WAS			
(teat/inches below top of casing)	(feet/Inches below top of casing)			
(26) RECOVERY (Time in hours/minutes)	(27) Was the water produced during the to discharged away from immediate are	a? Yes / No		
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(729 PUMP INSTALLED?		CERTIFIED PUMP INSTALLER	330	15 Nov
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व्युट ार व्य	(32) MAKE (33	, 110000		
SA MAKENDOM EXPACE - DEFT.	35 PULCE INSTALLATION LEVEL			
	FROM TOP OF CASING (Feet)			
(36) METHOD OF DRILLING	(37) USE OF WATER			treatur
Rotary Cable Tool Ciner	(See manuations for charges,		- 10	, , ~
(38) DATE DRILLING WORK STARTED	(39) DATE DRILLING WORK COMPLE	(ED	606	8
(40) DATE REPORT FILED (41) REGISTERED COMPANY	[(42)	DEC REGISTRATION NO	50%	
10/10/10 NORTHERU	DATELIA GAS	NYRD 1017 L	- ()	
CONTROL OFFICE PRINCIPLE	(44) CERTIFIED DRILLER SIGNATUR	(12)1	6/0	r L
* By signing this document i hereby affirm that: (1) I am certified to supervise water	well drilling activities as	BOTTO	OM OF HOLE
defined by Environmental Conservation Law 13-1	& State Department of Health: (3)	under the penalty of peri	ury	The second secon
water well standards promulgated by the new to the information provided in this Well Completion f languages statement made herein is ounishable as			NO.	'SDEC

TOWN BOOM BOOM WATER WELL COMPLETION REPORT AS OF THE PC ALC ALC ALC ALC ALC ALC ALC ALC ALC AL	COUNTY OCOUSE				(3) DEC	Well Number
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Both					(45) WE	LL LOG
COUNTER WILL Separation Dr Revision Page Count Elevation Top of Casing Count Elevation Top of Casing Count Counter	ADDRESS D C	ROY 2020	MONRUE	- NV	Depth to Bedrock	
See Reveal Top of Casing (**) Top of Casing	W DX	NO DENTE WOL	By streom	////	Ground Elevation	700
Comparison Com	LECATION OF WELL See Instructions On Reversor	PLOVE RD.	Check have I if address	s is same as above)		sea level)
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22) STABILIZED DISCHARGE (GPM:						conduce
22) LIFT METHOD			منتبعين وفعنا بالمراجعة بالمتعاربين والمتعاربين		à.	
Pump	10/17/15	4	HU		290	3 28 51"
24) STATIC LEVEL PRIOR TO TEST ((see\Inches below top of casing) ((see\Inches below top of casing) ((see\Inches below top of casing) (27) Was the water produced during the lost discharged away from immediate area? Yes	22) LIFT METHOD Pump A MILLS [146	CHARGE (GPM)	6	· -	;
(25) RECOVERY (Time in hours/minutes) (27) Was the water produced during the tost discharged away from immediate area? Yes No (28) PUMP INSTALLATION (29) DATE	• •	*	(DOWN (Stabilized)	paging garin in men guntung menuncum ber		
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10-14-15	(38) DATE DRILLING WORK STARTED	(39) DATE DRILLING	WORK COMPLETED			
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(44) CERTIFIED DRILLER (Print name) (44) CERTIFIED DRILLER SIGNATURE			HER SIGNATURE	up.	<u> </u>	
Property designed the state of the property of the supervise water well drilling activities as BOTTOM OF HOLE	- Committee of the state of the	hat it I am certified to suc	ervise water well drilling	g activities as	вотто	M OF HOLE
defined by Environmental Conservation Law 15-1502; (2) this water well was constructed in accordance with water well standards promulgated by the New York State Department of Health; (3) under the penalty of perjury the information provided in this Well Completion Report is true, accurate and complete, and I understand that	defined by Environmental Conservation Lav	y 15-1502; (2) this water we out York State Department o	of Health: (3) under the	e penalty of perjury		

NEW YORK STA	TE DEPARTMENT O	f environmental	CONSER	NOTTAV	# 18	
Micounity Orange 10				(3) DE	C Well Number	
12) TOWN MONTOR WAY	ER WELL CON	VIPLETION REP	PORT	0.	10710	
Simon Hou	h npa.	110			ETT FOR	1
ISTADORESS PO ANY JOSE	2 Maria	DADII W	20.40	Depth to Bedroo	k 28 (ft. below land surface)	
(6) LOCATION OF WELL (See Instructions On Resease)	1 od ma	resk hore 🖸 Hadarika is sarre :	M 802/0)	Ground Elevation	n (ft. above sea level)	
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117) DIALIETER		**************************************		Vari	ations	
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By signing this document I hereby allirm their 13/1 a defined by Environmental Conservation Law 15-1502	m contilled to supervise v	valer well drilling activities constructed in accordance	an ew≹fi €	вотто	M OF HOLE	
water well standards promulgated by the New York S the Information provided in this Wet Completion Repo larry false statement made herain is punishable as a C	ort is true, accurate and c	omplete, and I understan	of persury ld that causes	NYS	30EC	
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NEW YORK ST	ATE DEPARTMENT OF ENVIRONMENTAL CONSE	EVATION (1) (19)
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ESTORM Plontal WAR	PULSED TER WELL COMPLETION REPORT	010711
GI CASHER	A very service of the	⁽⁴⁹⁾ WELL LOG
SIMON Gel	b CPC LLC	Depth to Bedrack 28 (fl. belaw
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7) UNTITUDE LONGTRUCK AND METHOD LASED CO OFFE DE MAIN	(II, TAX IMPHO	bolow (-) lune euritage)
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13) GROUT TYPE I SEALING	MAIGROUP RESENTANCE 28 TO SEX FORCE	× 92 (5 900)
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ity signing this document I hereby effirm track L/i defined by Edvirtnmental Conservation Law 15-15	I am continud to supervise water well driving admitted as Q2: (2) this water well was constructed in secondance with	BOTTOM OF HOLE
juster well standards promutgated by the New York	: State Department of Hoalth: (3) under the penelty of perfict; econt is true, posturals and complete, and i understand that	· ·
any fatao statement mada heram ta punishathe as	a Class A Misdompanor under Penal Law 9210 Ha.	, WYSDEG
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NEW YORK STA	TE DEPARTMENT OF ENVIRONMENTAL CONSER	VATION =	£(20)
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ESTORIN MARIAL MAT	UISED TO THE PORT OF THE PORT	010	737
IN OWNER	ER WELL COMPLETION TELFORT	Halwe	LLLOG
19) ACOMESS Suman Sel	Lb CPC, LLC	Dooth to Sedrock	
PO BAX 2020	Domas, ny 10949	Ground Elevation	land surface)
Clare Rd. Rt.	7 Marin 104 L. O. L.		sez level)
(3) ANTICOLLOR MICHETHOD USED	ONTAX BOR NO.	Top of Casing	K (R. 650ve (+) or
(9) DEPTH OF VALLE SELOW LAND SURFACE MIN) 800	10) DEPTH TO GROUNDWATER DATE NEASURED BELVIOUS SUPPLIES NAME OF THE NEASURED BY THE NEADURED	TOP O	FWELL
59	SINGS		
Risi diameter 8 in 12	in. I lin. In.	0-6	promo
101 r. 21-pulled	u. II. in.	6-11	no sond stone
LIZE CHECKLIANE (SEVERE)	(HILL GROUT) SEA TOS INTERVAL 20' TSUA LACCE	, ,	by sandstook
	REINS	11-38 6	ellow fan
US) WAKE & HATESVAL VA	NI) OPENNICS	clays	a rocky.
(ा) प्राथसङ्ग्रहासः शर	ini in	38-39	brokengray
(12) LENGTH	n h in.	40'	s' stale.
(NO) DEPORTED TO BE OF CHEREEN PROCESSOR OF CHEREEN (Free)			FOCK Blade
	(b) 1887	42-81	gray clay
5/0/16	isti comition or rest	61	solid siltsto
EXPUTEDANCE DI PARIS DI PARIS	Istal a vertiste disperience (Chall	81	bedrack
(31) \$700 CLEVEL PROCETO TEST Hardwards program up of control	20) Australia des y Troy en (Saus Lawe) Post espara tantas cos el caparo)	* 110	5 gpm
14018BDDYEMY (Town in Incumination)	(27) State the tentes must cent mining the tent derinaged many properties mant that Visa V its	115	prations
र वासंधर	BIALLATION	145	Tut state
ISST DONE INSERTOR DS.	129 BATE (III) BIJACA (NETALE SE	1 30	
[2] I LANC	ENGAGE ENGAGE	* 765	(+10) gpm
THE MANUAL CHEST ALBERT	ESPERAT PRINCIPALITY LEVEL PRINCIPALITY CONTRACTOR	* 190	(40) apm
And the second s	NEGRMETON.	Van	risno
inin Dominis X and Rotaru	COMESTIC WORKS TO COMESTIC	M	shallo-
11,000 minute war system 4/24/16.	STO/IL	* 480	(15) gpm
CHUIDA TEREPORT HOLET WITH REGISTERED COLIPANY	NYRD 10009	Varia	Lians 17
(13) CORTIFIED CHILLER (Plantonia)	PATCENTAGE PHINTED PROPARTING	shall	DOGPHASIA
Utilliam Frey	mi contified to supervise water well critish netwrites as	<i>₹</i> 8000000000000000000000000000000000000	TOTAL DEPO
cellined by Environmental Conservation Law 15-1502 water wall standards promulgated by the blew York S	 (2) this water well was constructed to accordance with tale Department of Health; (3) under the penalty of penalty 	501101	A VE INCL
the internation provided in this Well Completion Rep any folias elatement made harein a punishable as a	ort is true, accurate and complete, and Lunderstand that Class A Mispemeen or under Penal Law \$210.45. 	Hvs	DEC
LOCATION SKETCH - Incidente north	1	in ()	A /
	208 OF and No		7
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NEW YORK STA	TE DEPARTMENT OF ENVIRONMENTAL CONSER	VATION #(21)
EL COUNTY Orange		131 DEC Well Number
Grain Marsal WA	ER WELL COMPLETION REPORT	010728
Simus Gel	b CPC LLC.	(46) WELL LOG
(S) ADGRESS OC ANY 3000	On page Ollingsia	Dopth to Bestrock 4/ (it below land surface)
IST LOCATION OF WELL (SEE INSIL SIGNA OF SWAFE)	Charles have if education is an an in the comp	Ground Elevation(il. above see level)
PLATFULENCHISTRUDE AND METHOD USED O OPS TO Tap	Rtd Mognowny	Top of Casing (f. abova (+) or below (-) land surface)
10) DESTRI DE (VIELL BELDA) 1010	RESPONDENCE REPORTED OF HERE OF THE PROPERTY O	TOP OF WELL
INITIAN/ETER	SING	0-40 prows tell
CONTRACTOR	ri in, At In.	Clay,
10/ 11 21-pulled	THE GROUT FREN NO HITEMAN	41 000
Bentonite dry granula	REENS PRODUCE TO SUSPECE	10ch
OSPIANOE & NATERIAL	[18: CRENNSS	Variations
INFORMALETER II.	n. 1/3 571.	ad play e
(III) CEPRETH	in in	Riolk shale
WE DEPTH TO THE THE SCREEN FROM TOP OF CARNO Work		
YE		150 30/9pm
का वस्तव -	2 House allow at test	11-0-100 (50)gany
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and as a contact to the contact of t	6271 Was the name of surface and surface of the sur	black shale
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THE WAS DIED.	NATIONAL CONTRACTOR	Hotal
TO THE STATE OF TH	LIMING DEVICES	Variations
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and the second s	INFORMATION.	hindu stale
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OF DIRECTION WORK STATED. 4/19/16	(1) 10 10 10 10 10 10 10 10 10 10 10 10 10	985 200 gpm
SUBATE PRIDORT FILED WATERCOSTERED COMPANY	OCILION NYRD 10009	Variations of
William Freu	Carolliam Tra	Sidio Total
By signing this document I hereby although the (L.) is grained by Environmental Conservation Law 15-1502	on cortilled to gapsrvise water wall drilling adjivides as (2) this water well was constructed in accordance with	BOTTOM OF HOLE
water well standards premulgated by the New York S the Information provided in this Well Completion Rep	itals Department of Health; (3) united the penalty of porjury or is true, accurate and complete, and trunderstand that	
any talan statament made boroin & punishable as a c	Cass A Misconniant: Water Paste Law 32 to 40.	Market was to the Control of Cont
LUCATION SKETCH - Indicate north	208 013 Nd	·
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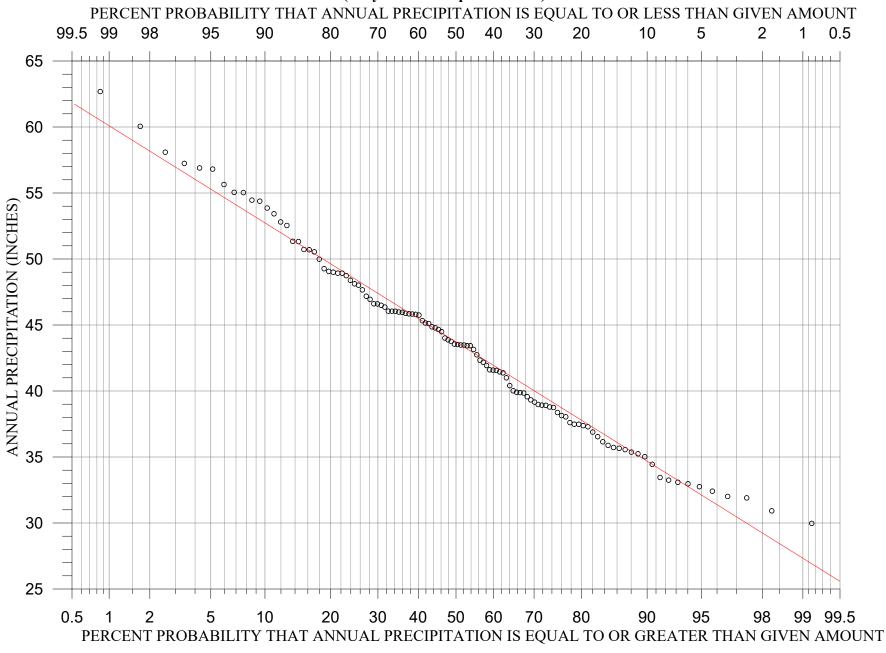
NEW YORK STA	TE DEPARTMENT OF ENVIRONMENTAL CONSER	VATION #	* (2B)
111 SOUNTY OF ange 1			Vell Number
12) TOWN MOORDE WALL	ER WELL COMPLETION REPORT	010	729
(4) OWNER		(45) WE	LLOG
Simon Gell	b, CPG, LIC	Depth to Bedrock	41_(B. below
P.O. BOY 20	20 Monnow, My 10950	Ground Elevation _	land surface) (fl. above
(8) LOCATION CIP WELL (Some instruction in Confidence and)	-2" / (Canada hare [] !! apportus in serve ins above)		sed level)
(7) LATITUDE LONGTILIDE AND METHOD USED	(8) TAX MAP NO	Top of Casing S	★ Ift. above (+) or ow (-) land surface)
G) OFFITH OF WELL BELONY	(10) DEPTH TO GROUNDYFATER DATE MEASURED		
LAND SURFACE (NAME) 800	RELATION AND SIMPLES (1841)	i i l	METT
(IT) DIAMETER 8 in. 12	n. In. in.	0-24	haun
STOLLENGTH .	P.	0 4 /	bank nun
10/ 11 41 -pulled	(TIA) GROUT (SEALING INTERVAL		gravel
Bentonite drygranula	PRINCE PRON_101 TOSULJACE	24-41	Shall
(15) WHE & CHIENA	ine opening		gravee
(17) DIANISTER	e de la companie de l	Shutoff	(50) gpm
lra l	in. in.	loching	
(naturalists	fi. H. in.	l'a un	Tino
115) DEPTH TO TOP OF SCHEEN, PROMITOR OF CASKYG (Free)		Valida	au a hlack
PROPERTY OF THE PROPERTY OF TH	LO TEST	77-91	
-5/3/14	INDURATION OF 1857	shaf	
122 LST BUTTOND Pump Parist Dans	on straiuzes districted igenii	155-140	(150,00
(24) STATIO LEVEL PRIOR TO YESY (universe text a text of caning)	(25) PARAMENTE DEVANDENTY (STATELES) (Instruction below top of energy)	193 740	
145 RECOVERY This ared instruction	27/V/se the vester on the sed acting the last	Var	ntano
PUMF IS	cascarged analytical invanishing and Yes _ V _ No _ V	N/ W	Que C
PER POUR MATALLEDY	20) DATE MOTPURPINSTALLER	Link	Kistale
(31/T.PB)	ावर (प्रश्नेस्ट (ग्रामाम ा टर)	Will	
CONTRACTOR CONTRACTOR CONTRACTOR	REST FLISHE CHET COLLET COLLETE	405-6	15 20 gpm
TOLLO	FROM TOP OF CASHGAFONII	white	A Add
ON RESPONDENCE DUAL	OF USE OF WATER	Section	ħ
(100) DELICATED A STOR ROLLING	SOUDARE SHELF WITH SUBJECT SAME ELEU	440	20 0014
4/27/16	5/3/10		30 804
HON DATE REPORT PLED HAN REQUIRED COMPANY	OCITION NYRO 10004	Varia	hinck shall
(45) DESCRIPTION ON THE PROPERTY OF THE	CALLCEAT FIED BONDER SICHATURE	9.27 L	- adonka
By signing this document I hereby affam that (1) I a	am certified to supervise yealer well drilling activities as: (2) this water well was constructed in accordance with	8 CO BOTTON	OF HOLE
water well standards promitigated by the New York S	State Department of Health: (3) under the penalty of carrier of is true, accurate and complete, and I understand that		
any false sistement made herein is punishable as a	Class A Mademeanor under Penal Law §210.45.		DEC.
LOCATION SKETCH - Indicate north	ot 2 True nd		٨/]
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NEW TURK	SIRIE DEPARTMENT OF	e envikonnental com	SERVATION		*(C 23)
MEDINA Changer /				31 DEC	Well Number
WITOMA Monal	ATER WELL COM	PLETION REPOR	₂ -	010	1828
учулинен С	2000	7		His WI	ELL LOG
(S) ADDINESS (1)	2 CPC, CA		Cepth to I	Sedrock	10 (it. below
MO SON OR WELL SEEN THE MISSION OF THE SEEN THE PROPERTY OF THE SEEN THE SE	3 0 (1)000	<u>OLIPUL 109°Y</u> hack haro 🗆 Hyddines is sam es sisco	Ground E	hovation	(it. above
Clave Rd	Rt27, N	James 14	Tup of Co	nsiria	sea level)
C) CALLED THE STATE OF THE STATE OF THE U.S. C. THE STATE OF THE STATE		YARDENIO /			plow (-) land surface)
CONTRACTOR WELL SELOW 1000	THE DEPTH TO GROUNDWAY		Lo.	TOP	OF WELL
	CASINGS	Adam (American)			
8 in. 12	in.	in.]		6'	sack
10/ 1 21-pull	ects.	#t			
IND CROWT THE TREATING	THE GROUT SEALING WITER		-X/20)	100gm
Benjame an Ada H	SCREENS			一	Total
134 PINKE E BESTERIAL	1 Tre operator		* /6	9	10 total
(iv) DIAMETER	in l	in, in	T*21.	3	(30) gam
(18) (8) (8)	n.	it in	2.0		Oyotoka
IL.	5. NO. P. C.	*I	- 40	9	priation
	WELD TEST		_ _0	1-	prano
8/10/16	12/10uleanquor sest	Andrew Marie	* 60	0	40 gpm 80 h
(SELECTIVE)	CH ST-MUZEC D SCH-NGS	100 KV	x /0x	15	(20)Capry
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And the second s	GALTSTAND DWG PAGE TOPA		_ 16-	* (Variations
PART PROF BRIDGE BOT	19 INSTALLATION	1.29 PHYS 9877	100	0	Variations Of Shales
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many Districted Million Rota		_ Driver	V 100	2	Total
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PRODUCT REPORT FLED (1) APCISTERED COLARANT	Dailin	NYRO LOCO	7		100 gpH
1434 GERTHRIED DORLGER HAMILIANIAN	The control on the sea	Lam Inc	at at and a at t rans		total
By signing this document I hereby aftern that a confined by Environmental Conservation Law 15	(c) I am confled to supervise t	waler well drilling activities of		SOTTO	MOFHOLE
water well standards promulgated by the New Y the information provided in this Well Completion	ork State Department of Hear	th: (a) under the penalty of per	jury j		
any false statement made hereio & punishable		der Penel Lew \$210.45.	UE 0/0	HYS	SDEC
LOCATION SKETCH - Indicate north	And the Control of th		M.	- INTERNATION	A.)
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APPENDIX III

NORMAL PROBABILITY PRECIPITATION DISTRIBUTION PORT JERVIS, NEW YORK (1880 - 1885/1890 - 2002)

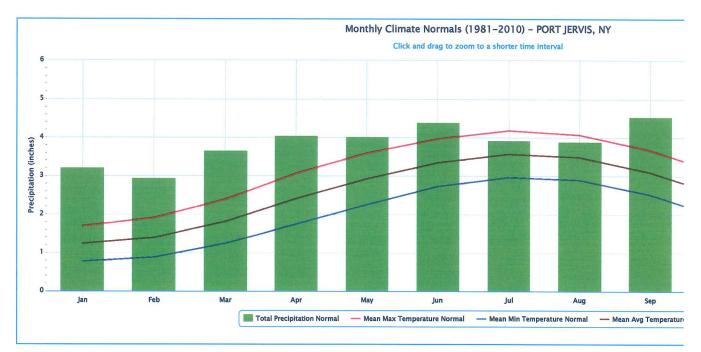
(for years of complete record)



Monthly Total Precipitation for PORT JERVIS, NY

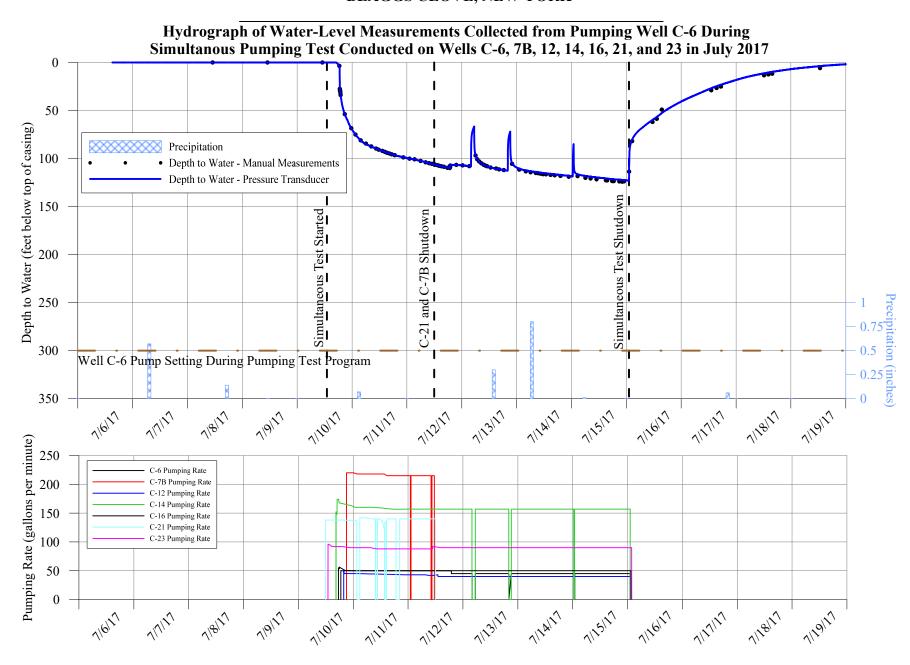
			Each o			ntion for PORT JERVIS, NY see and monthly number of missing days							
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1893	3.57 0	5.54 2	3.80 0	_	8.44 1	3.79 0	3.33 0	5.63 0	1.93 0	3.67 0	3.47 0	3.92 0	50.70
1894	2.45 1 3.77 0	4.03 0 1.45 0	1.57 0		6.68 0	1.95 0	1.83 0	1.57 0	6.02 0	6.06 1	3.34 0	6.05 0	44.83
1895 1896	3.77 0 1.55 0	1.45 0 6.51 0	1.69 C	000000000000000000000000000000000000000	3.04 0 2.88 0	2.71 0 6.06 0	3.20 1 8.61 2	8.14 0 2.51 0	1.48 0 5.43 0	5.79 0 3.53 0	2.90 0 4.80 0	3.33 0 1.14 0	42.17 51.25
1897	2.91 0	3.00 0	2.74 0		5.57 0	M 22	9.53 1	3.65 0	2.22 0	1.18 0	5.71 0	M 17	M
1898	M 22	4.33 2	M 20	1 CONT. 100	M 11	4.15 0	M 22	2000	2.14 0	5.04 0	M 18	2.27 0	М
1899	M 22	4.04 0	5.83 0		2.30 0	M 19	M 19		M 15	_	2.22 0	2.01 0	M
1900 1901	2.32 0 1.59 0	M 18 M 21	M 20	2.06 0 6.73 0	2.92 0 6.73 0	4.99 0 2.65 0	M 14 7.33 0	M 19	M 22		M 16		M
1902	M 22	6.46 0	M 2		M 22	M 16	M 9	M 19	8.01 0	5.39 0	M 18		M
1903	3.00 0	M 18	3.68 0	3.52 0	1.00 0	13.76 0	4.50 0	8.25 0	1.52 0	10.60 0	1.99 0	3.86 0	M
1904	3.42 0	2.08 1	3.56 0		4.97 0	2.01 0	5.05 0	M 21	6.80 0	M 25	2.28 0	2.10 0	М
1905 1906	5.26 1 2.00 0	2.00 0 2.28 0	3.60 0 M 18	1.85 0 3 M 21	2.04 0 4.07 0	M 17 M 15	M 18 5.36 0	6.39 0 3.44 0	5.51 0 M 21	M 24 2.58 0	M 22	3.49 0 M 18	M
1907	3.26 0	1.72 0	2.24 0	2.37 0	2.72 0	2.99 0	2.95 0	M 18	7.01 0	5.30 0	M 17	4.81 0	M
1908	2.83 0	M 21	4.23 0	M 17	M 16	M 23	M 21	M 24	2.17 0	M 22	0.80 0	2.70 0	M
1909	M 15	5.21 0	4.04 0	5.98 0	2.83 1	3.54 0	1.37 0	2.39 0	2.83 0	1.20 0	2.13 0	3.88 2	M
1910	4.34 0 2.03 0	3.47 0 2.16 0	1.20 0 3.49 0	7.98 0	1.86 0	3.53 0	1.27 0	4.73 0	2.08 0	0.90 0	3.78 0	2.40 0	37.54
1911 1912	2.03 0 1.19 0	2.16 0 1.68 2	3.49 0 5.25 0	3.48 0 4.11 0	1.11 0 2.99 0	7.69 0 1.40 0	4.14 0 1.72 0	6.69 0 4.87 0	M 18	5.89 0 3.35 0	2.78 0 2.27 0	3.10 0 4.03 0	M 37.29
1913	3.57 0	1.89 0	6.09 0	4.44 0	3.03 0	1.57 0	6.92 0	4.07 0	2.54 0	5.46 0	3.79 0	3.57 0	46.94
1914	2.58 0	2.93 0	5.87 0	4.63 0	3.33 0	3.80 0	3.55 0	2.30 0	0.33 0	2.24 0	2.83 0	3.21 0	37.60
1915	5.12 0	4.14 0	0.63 0	2.24 0	3.77 0	2.70 0	5.96 0	6.17 0	2.54 0	3.33 0	2.32 0	6.41 0	45.33
1916 1917	1.40 0 2.93 0	2.16 0 1.51 0	3.92 0 3.49 0	3.57 0 1.49 0	5.22 0 3.54 0	4.66 0 5.57 0	6.41 0 2.56 0	2.37 0 1.36 0	4.19 0 0.97 0	1.57 0 5.99 0	2.75 0 0.70 0	3.36 0 3.14 0	41.58 33.25
1918	4.38 0	1.61 0	1.71 0	4.92 0	4.93 0	2.79 0	3.38 0	4.63 0	3.92 0	2.04 0	2.36 0	3.21 0	39.88
1919	2.54 0	2.28 0	4.77 0	2.60 0	3.79 0	4.01 0	5.83 0	4.06 0	3.57 0	3.70 0	4.82 0	1.91 0	43.88
1920	2.81 0	4.22 0	4.43 0	5.24 0	2.36 0	5.67 0	9.46 0	4.45 0	7.17 0	2.71 0	4.37 0	3.92 0	56.81
1921 1922	2.31 0 2.09 0	3.90 0 1.73 0	3.67 0 3.81 0	2.97 0 1.93 0	2.55 0 2.98 0	3.88 0 11.85 0	2.17 0 4.88 0	3.21 0 4.03 0	3.11 0 1.58 0	1.61 0 1.66 0	5.01 0 1.27 0	2.15 0 3.75 0	36.54 41.56
1923	6.42 0	1.95 0	2.29 0	1.89 0	3.46 0	4.45 0	4.25 0	1.64 0	3.28 0	3.25 0	3.10 0	3.59 0	39.57
1924	3.76 0	2.01 0	2.35 0	6.36 0	6.48 0	1.99 0	1.74 0	3.07 0	7.42 0	0.27 0	M 30	M 31	M
1925	M 31	M 25	3.12 0	1.39 0	1.12 0	3.34 0	9.66 0	2.83 0	3.10 0	3.28 0	4.74 0	2.47 0	M
1926 1927	4.19 1 3.31 0	5.55 0 3.46 0	1.85 0 3.24 0	3.89 0 2.97 0	2.41 0 6.20 0	3.90 0 4.29 0	2.79 0 6.97 0	5.57 0 7.38 0	5.40 0 2.68 0	5.36 0 6.41 0	6.15 0 6.04 0	1.87 0 2.43 3	48.93 55.38
1928	2.77 0	4.50 0	3.73 0	5.61 0	2.67 0	7.93 0	6.47 0	6.14 0	2.78 0	2.04 0	1.11 0	0.23 0	45.98
1929	2.88 0	3.40 0	2.23 0	7.24 0	3.29 0	4.94 0	1.91 0	2.75 0	5.22 0	3.97 0	2.42 0	3.23 0	43.48
1930	1.43 0	0.96 0	3.79 0	1.71 0	3.51 0	4.99 0	3.23 0	3.64 0	4.89 0	1.60 0	2.63 0	3.34 0	35.72
1931 1932	1.75 0 2.58 0	2.34 0 2.54 0	2.61 0 2.72 0	4.45 0 1.52 0	4.74 0 4.96 0	5.11 0 3.40 0	7.60 0 3.50 0	3.94 0 4.50 0	2.77 0 1.61 0	1.89 0 9.60 0	0.89 0 6.26 0	2.31 0 1.59 0	40.40 44.78
1933	1.37 0	3.41 0	4.56 0	3.39 1	2.25 0	1.55 0	2.68 0	10.13 0	6.63 0	2.83 0	0.83 0	2.76 0	42.39
1934	2.29 0	2.50 0	2.71 0	4.67 0	5.06 0	4.30 0	4.78 0	2.27 0	7.87 0	2.75 0	4.34 0	2.57 2	46.11
1935	3.05 0	1.80 1	1.76 0	1.63 0	2.78 0	4.35 0	7.30 0	1.73 0	3.92 0	7.19 0	4.56 0	1.71 0	41.78
1936 1937	4.28 0 5.17 0	1.44 0 2.76 0	7.93 0 2.79 0	3.51 0 3.94 0	3.82 0 3.59 0	4.15 0 5.66 0	0.97 0 4.70 0	6.21 0 4.97 0	3.51 0	2.72 0 5.24 0	1.52 0	4.95 0	45.01
1937	3.36 0	1.81 0	2.18 0	2.33 0	3.59 0	8.62 0	11.35 0	3.27 0	3.16 0 8.43 0	5.24 0 3.05 0	3.82 0 3.32 0	2.22 0 3.13 1	48.02 54.38
1939	2.55 0	4.85 0	3.45 0	4.52 0	1.48 0	3.76 0	2.04 0	4.27 0	4.08 0	5.25 0	2.04 0	1.56 0	39.85
1940	1.87 0	2.26 2	5.54 0	4.41 0	4.81 0	6.51 0	1.65 0	5.54 0	1.80 0	1.91 0	4.98 0	2.26 0	43.54
1941 1942	2.02 0 2.78 0	2.00 0 1.30 0	1.83 0 3.12 0	1.49 0 1.28 0	1.87 0	4.10 0	7.30 0	3.36 0	0.40 0	1.69 0	1.77 0	3.09 0	30.92
1943	3.04 0	2.24 0	3.12 0 1.46 0	1.73 0	3.43 0 5.40 0	4.66 0 2.79 0	7.05 0 3.35 0	4.92 0 2.27 0	5.73 0 0.54 0	2.21 0 6.15 0	4.05 0 2.68 0	5.51 0 0.36 0	46.04 32.01
1944	1.00 0	2.65 0	4.42 0	4.75 0	1.52 0	3.64 0	2.43 0	1.46 0	4.98 0	1.18 0	3.40 0	3.01 0	34.44
1945	4.77 0	3.61 0	1.90 0	3.65 0	6.01 0	5.90 0	6.54 0	4.30 0	3.24 0	2.10 0	6.16 0	4.62 0	52.80
1946 1947	1.18 2 3.01 0	2.82 0 2.30 0	1.65 0 2.35 0	1.02 0 6.40 0	6.67 0	2.96 0 3.05 0	4.02 0	2.81 0	4.96 0	1.94 0	0.71 0	1.67 0	32.41
1947	3.75 0	1.82 0	2.70 0	6.40 0 4.62 0	8.76 0 6.60 0	3.05 0 4.71 0	9.17 0 3.85 0	0.79 0 1.65 0	2.32 0 1.81 0	1.60 1 1.36 0	5.73 0 3.95 0	3.88 0 6.93 0	49.36 43.75
1949	4.38 0	1.55 0	1.19 0	4.78 0	5.52 0	1.69 0	3.31 0	1.99 0	2.76 0	1.96 0	1.11 0	3.21 0	33.45
1950	2.21 0	3.32 0	3.80 0	2.26 0	3.42 0	5.03 0	1.65 0	2.24 0	1.96 0	1.19 0	3.83 0	4.46 0	35.37
1951	4.12 0	4.46 0	5.77 0	2.50 0	3.98 0	4.03 0	3.64 0	3.57 0	1.62 0	3.34 0	5.94 0	2.78 0	45.75
1952 1953	3.17 0 5.50 0	1.58 0 0.80 0	4.56 0 5.15 0	9.10 0 7.05 0	5.86 0 3.88 0	5.13 0 3.48 0	5.20 0 3.45 0	3.73 0 1.87 0	5.87 0 3.38 0	1.02 0 6.43 0	7.45 0 2.52 0	4.33 0 4.15 0	57.00 47.66
1954	1.55 1	1.66 0	1.97 0	3.84 0	4.29 0	0.90 0	1.49 0	4.02 0	2.80 0	1.91 0	6.32 0	4.66 0	35.41
1955	1.05 0	2.06 0	3.54 0	3.24 0	1.44 0	2.62 0	1.89 0	17.34 0	3.05 0	9.21 0	3.35 0	1.23 0	50.02
1956	2.31 0	3.07 0	4.01 0	3.27 0	2.43 0	3.04 0	5.23 0	1.53 0	6.12 0	1.85 0	2.87 0	2.61 0	38.34
1957 1958	2.45 0 5.34 0	1.64 0 4.58 0	2.00 0 4.87 0	3.65 0 5.59 0	1.87 0 3.77 0	2.52 0 3.14 0	4.35 0 4.11 0	1.41 0 4.66 0	3.33 0 4.27 0	3.26 0 6.16 0	2.68 0 1.53 1	6.08 0 1.06 0	35.24 49.08
1959	0.98 0	1.48 0	M 31	M 30	M 31	M 30	M 31	M 31	M 30	M 31	M 30	M 31	49.08 M
1960	M 31	M 29	M 31	1000	M 24	4.31 0	6.61 0	6.08 0	6.56 0	1.63 0	1.54 0	2.20 0	M
Mean	2.99	2.77	3.51	3.68	3.93	4.24	4.43	4.01	3.84	3.38	3.37	3.40	43.54
	8.91	6.51	8.58	10.69	11.11	13.76	11.35	17.34	10.51	10.60	9.46	9.03	71.77
Max	1979	1896	1977	1983	1989	1903	1938	1955	2011	1903	1972	1973	2011
Min	0.52 1980	0.59 1968	0.43 1981	1.02 1946	0.87 1962	0.59 1966	0.96 1999	0.73 1964	0.33 1914	T 1963	0.70 1917	0.23 1928	29.97 1965
				-				-					

Year	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		Annual
1961	3.13	0	3.65	0	4.84	1	5.27	0	4.56	0	2.66	0	3.45	0	2.90	0	2.48	0	1.17	0	5.22	0	2.89	1	Annual 42.22
1962	2.97	0	3.74	0	2.18	0	3.51	0	0.87	0	2.16	0	1.52	0	3.29	0	2.10	0	3.95	0	3.78	0	2.90	0	32.97
1963	2.93	0	3.23	0	2.91	0	1.36	0	3.04	0	2.75	0	6.28	0	1.81	0	3.00	0	Т	0	5.99	0	2.26	0	35.56
1964	5.00	0	2.59	0	2.04	0	3.99	0	3.63	0	2.23	0	4.86	0	0.73	0	1.79	0	0.61	0	2.02	0	3.26	0	32.75
1965	2.97	0	2.33	0	1.92	0	2.21	0	2.14	0	1.82	0	3.47	0	4.47	0	2.63	0	2.34	0	1.91	0	1.76	0	29.97
1966	2.53	0	2.99	0	2.30	0	2.32	0	2.74	0	0.59	0	2.65	0	1.67	0	4.30	0	3.20	0	3.77	0	4.03	0	33.09
1967	1.26	0	1.98	0	6.17	0	2.82	0	3.29	0	2.97	0	6.00	0	6.15	0	1.97	0	1.98	0	2.51	0	4.35	0	41.45
1968	1.92	0	0.59	0	3.42	0	3.41	0	5.99	0	5.40	0	1.37	0	3.32	0	1.82	0	2.91	0	4.44	0	2.79	0	37.38
1969	2.17	0	1.51	0	3.20	0	3.84	0	1.55	0	3.75	0	7.33	0	4.41	0	2.96	0	1.94	0	4.47	0	6.02	0	43.15
1970	0.61	0	2.79	0	3.49	0	3.56	0	2.92	0	1.95	0	3.89	0	2.38	1	3.02	0	4.55	0	5.09	0	2.51	0	36.76
1971	2.55	0	5.31	0	2.61	0	1.96	0	6.61	0	2.28	0	3.78	0	6.74	0	4.42	0	3.20	0	4.44	0	2.70	0	46.60
1972	2.20	0	4.56	0	4.90	0	3.92	0	6.17	0	9.53	0	3.48	0	2.97	0	1.46	0	3.15	0	9.46	0	5.44	0	57.24
1973	3.35	0	2.47	0	2.78	0	6.99	0	6.83	0	6.96	0	4.38	0	2.45	0	3.60	0	3.34	0	1.68	0	9.03	0	53.86
1974	3.77	0	2.35	0	5.10	0	3.20	0	3.87	0	5.42	0	5.72	0	5.74	0	5.37	0	1.62	0	2.48	0	4.42	0	49.06
1975	5.24	0	4.20	0	3.88	0	2.36	0	3.72	0	5.07	0	4.70	0	4.32	0	4.88	0	3.26	0	4.33	0	2.43	0	48.39
1976	4.62	0	2.71	0	2.20	0	2.32	0	4.39	0	6.41	0	5.38	0	4.12	0	3.33	0	5.64	0	1.06	0	2.48	0	44.66
1977 1978	1.39 6.76	0	2.85 1.72	0	8.58 3.11	0	4.27 1.19	0	1.37 6.19	0	2.21	0	3.20 2.18	0	3.14	0	6.02 2.41	0	3.87 2.47	0	4.52 2.36	0	5.19	0	46.61 38.04
1979	8.91	0	3.23	0	2.60	0	3.99	0	5.46	0	2.92	0	4.85	0	3.83	0	6.78	0	4.05	0	3.22	0	3.88 1.48	0	38.04 51.32
1980	0.52	0	1.18	0	6.83	0	5.30	0	1.31	0	3.83	0	4.65 M	31	2.15	0	2.75	0	4.74	0	3.05	0	1.40	0	51.32 M
1981	0.61	0	5.61	0	0.43	0	3.95	0	4.95	0	4.36	0	4.53	0	1.08	0	3.72	0	4.55	0	1.41	0	3.55	0	38.75
1982	3.20	0	2.99	0	2.34	0	4.04	0	3.51	0	6.18	0	2.87	0	5.11	0	3.82	0	1.06	0	3.37	0	1.53	0	40.02
1983	3.13	0	3.69	0	6.28	0	10.69	0	4.49	0	4.42	0	1.73	0	3.22	0	4.03	0	3.59	0	5.78	0	7.04	0	58.09
1984	1.36	0	4.44	0	5.06	0	6.57	0	8.70	0	4.30	0	6.46	0	3.40	0	0.70	0	1.61	0	2.72	0	3.42	0	48.74
1985	0.91	0	2.48	0	2.30	0	1.37	0	7.63	0	4.52	0	3.98	0	2.32	0	9.09	0	1.65	0	6.73	0	2.91	0	45.89
1986	4.47	0	4.52	0	2.83	0	5.35	0	2.03	0	4.99	0	7.23	0	2.10	0	1.47	0	2.05	0	5.53	0	3.39	0	45.96
1987	4.30	0	0.60	0	2.18	0	5.87	0	1.96	0	1.17	0	3.94	0	3.86	0	7.52	0	4.93	0	3.94	0	1.66	0	41.93
1988	2.05	0	3.83	0	1.71	0	1.58	0	5.47	0	1.14	0	7.97	0	4.14	0	3.32	0	1.93	0	5.64	0	0.82	0	39.60
1989	1.47	0	1.80	0	2.99	0	1.70	0	11.11	0	6.28	0	2.04	0	4.41	0	8.15	0	6.07	0	1.60	0	1.31	0	48.93
1990	4.76	0	3.02	0	3.14	0	2.43	0	6.96	0	1.24	0	4.54	0	7.04	0	1.84	0	3.92	0	3.65	0	6.46	0	49.00
1991	2.59	0	1.50	0	4.22	0	3.76	0	1.80	0	2.34	0	1.80	0	3.07	0	4.16	0	3.69	0	3.40	0	2.69	0	35.02
1992 1993	2.11	0	2.07 3.40	0	3.46	0	2.65	0	4.27 1.15	0	5.03	0	6.25 1.82	0	1.97	0	3.66	0	1.40	0	3.88	0	5.59	0	42.34
1993	5.68	0	2.87	0	5.97 5.87	0	6.89 4.32	0	3.39	0	3.28 5.51	0	4.28	0	1.76 8.26	0	6.40 5.14	0	4.69 1.86	0	3.38	0	3.82 2.63	0	45.15 53.42
1995	3.54	0	2.32	0	3.05	0	2.43	0	2.15	0	1.64	0	3.18	0	1.65	0	2.89	0	8.25	0	4.98	0	2.06	0	38.14
1996	7.32	0	2.19	0	3.00	0	7.37	0	2.88	0	3,61	0	9.83	0	2.72	0	7.30	0	5.66	0	4.34	0	6.47	0	62.69
1997	2.50	0	1.77	0	5.13	0	2.70	0	2.39	0	2.00	0	3.25	0	6.14	0	3.85	0	1.67	0	4.48	0	3.70	0	39.58
1998	3.46	0	4.34	0	4.54	0	5.38	0	6.67	0	11.06	0	1.78	0	1.75	0	1.53	0	2.73	0	1.72	0	1.09	0	46.05
1999	6.07	0	2.48	0	4.82	0	2.27	0	2.39	0	1.23	0	0.96	0	3.46	0	10.43	0	3.02	0	1.91	0	2.34	0	41.38
2000	3.84	0	2.63	0	3.66	0	4.16	0	3.02	0	7.54	0	5.96	0	3.61	0	4.40	0	1.16	0	2.45	0	5.69	0	48.12
2001	1.79	0	2.72	0	5.15	0	1.57	0	M	31	3.44	0	1.92	0	2.25	0	4.33	0	0.84	0	1.06	0	1.80	1	M
2002	1.30	0	0.71	0	3.60	0	3.67	0	6.97	0	4.89	0	1.88	0	3.25	0	3.71	0	6.42	0	4.02	0	6.07	0	46.49
2003	2.37	1	3.67	2	3.44	1	1.56	0	4.23	0	M	11	M	20	5.40	0	М	17	M	20	M	19	M	18	M
2004	M	15	M	24	M	15	M	20	M	12	M	20	M	18	M	19	M	22	M	24	3.54	0	M	20	M
2005	M	13	2.54	0	M	19	M	19	M	19	3.11	1	M	18	7.85	0	M	25	M	19	M	19	M	21	M
2006	M	20	M	20	M	26	M	19	M	21	8.10	0	3.60	2	M	22	M	15	M	22	M	21	M	23	M
2007	M	21	1.90 M	0 17	2.52 M	0 20	5.35 M	23	M 3.66	26 0	3.85	0	5.06 M	0 17	4.61	0	1.19	0	M 5.07	22	4.03	1	M 7.46	14	M
2008		1	0.77	0		0	2.70	0	3.91	0	2.16 8.79	0	5.47	0	1.68 3.66	0	5.85 0.54	0	5.97 4.90	0	1.90	0	7.46 4.83	0	M 40.98
2010		0	3.72	0	7.36	0	3.31	0	2.71	0	3.15	0	2.74	0	4.00	0	1.70	0	9.24	0	2.78	0	3.29	0	45.73
2011	2.01	0	2.24	0	6.62	0	5.38	2	5.45	0	8.55	0	5.95	0	13.79		10.51	2	3.84	0	3.17	0	4.26	0	71.77
2012	3.17	0	0.68	0	1.40	0	2.74	0	3.39	0	3.64	0	4.31	0	2.95	0	7.78	0	4.87	0	0.97	0	4.27	0	40.17
2013		0	1.69	0	2.06	0	2.77	0	3.32	0	9.95	0	3.17	0	7.11	0	1.44	0	1.48	0	2.96	0	3.81	0	42.91
2014		0	3.30	0	2.29	0	2.15	0	4.67	0	3.94	0	6.53	0	2.56	1	1.94	0	3.36	0	2.62	0	3.06	0	39.71
2015	2.73	0	1.33	0	2.68	0	2.62	0	1.60	0	8.29	0	7.86	0	3.54	0	4.75	0	3.20	0	1.61	0	3.65	0	43.86
2016	1.49	0	4.38	0	0.55	0	1.94	0	3.74	0	2.32	0	5.53	0	4.68	0	1.07	0	2.20	0	2.66	0	3.09	0	33.65
2017	2.85	0	2.43	0	4.06	0	4.49	0	4.06	0	3.26	0	4.56	0	3.93	0	2.27	0	M	15	M	30	M	31	M
Mean	2.99		2.77		3.51		3.68		3.93		4.24		4.43		4.01		3.84		3.38		3.37		3.40		43.54
Max	8.91		6.51		8.58		10.69		11.11		13.76		11.35		17.34		10.51		10.60		9.46		9.03		71.77
	1979	_	1896	4	1977 0.43		1983	_	1989	_	1903	_	1938		1955		2011		1903		1972	_	1973		2011
Min	0.52 1980		0.59 1968		1981		1.02 1946		0.87 1962		0.59 1966		0.96		0.73 1964		0.33 1914		T 1963		0.70 1917		0.23 1928		29.97 1965
				_											.50 7			_				_	.525		,550

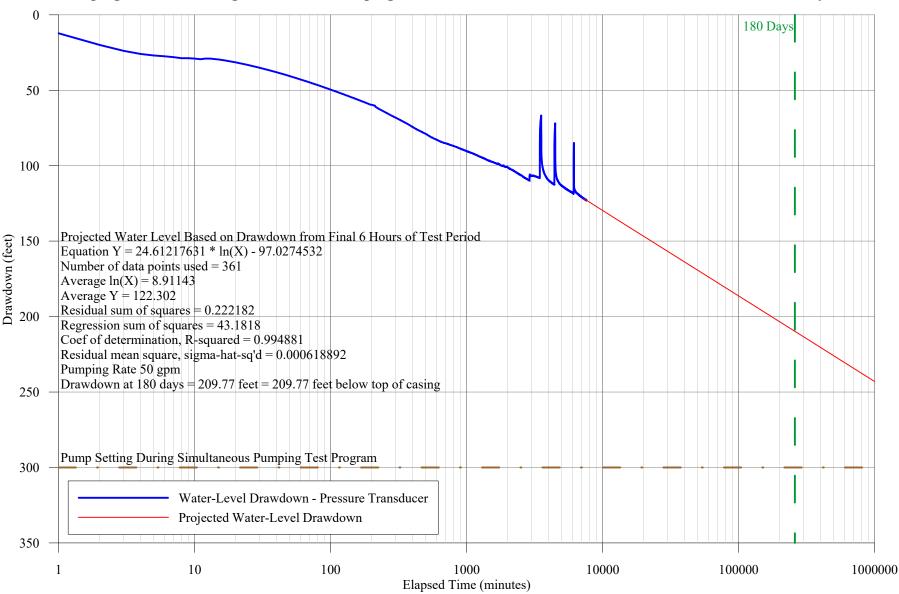


Month	Total Precipitation Normal (inches)	Mean Max Temperature Normal (°F)	Mean Min Temperature Normal (°F)	Mean Avg Tempera (°F)
January	3.22	33.7	15.4	24.6
February	2.93	38.0	17.5	27.7
March	3.66	47.6	24.7	36.1
April	4.04	61.1	34.8	48.0
May	4.01	71.7	44.9	58.3
June	4.39	79.1	54.4	66.7
July	3.92	83.4	59.1	71.2
August	3.89	81.2	57.7	69.5
September	4.54	73.3	50.1	61.7
October	4.41	61.5	38.4	50.0
November	3.59	49.9	30.2	40.0
December	3.78	37.9	20.8	29.4

APPENDIX IV



180-Day Water-Level Drawdown Projection on Pumping Well C-6 from Water-Level Measurements Collected from Pumping Well C-6 During Simultanous Pumping Test Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



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		Depth to	Elapsed Time/Recovery	
Date	Time	Water/Drawdown	(minutes)	Comments
7/6/17	16.00	(ft btoc/feet)		D
7/6/17	16:00 17:00	flowing flowing		Pressure transducer installed in well.
7/6/17	18:00	flowing		
7/6/17	19:00	flowing		
7/6/17	20:00	flowing		
7/6/17	21:00	flowing	 	
7/6/17	22:00	flowing		
7/6/17	23:00	flowing		
7/7/17	0:00	flowing	 	
7/7/17	1:00	flowing		
7/7/17	2:00	flowing		
7/7/17	3:00	flowing		
7/7/17	4:00	flowing		
7/7/17	5:00	flowing		
7/7/17	6:00	flowing		
7/7/17	7:00	flowing		
7/7/17	8:00	flowing		
7/7/17	9:00	flowing		
7/7/17	10:00	flowing		
7/7/17	11:00	flowing		
7/7/17	12:00	flowing		
7/7/17	13:00	flowing		
7/7/17	14:00	flowing		
7/7/17	15:00	flowing		
7/7/17	16:00	flowing		
7/7/17	17:00	flowing		
7/7/17	18:00	flowing		
7/7/17	19:00	flowing		
7/7/17	20:00	flowing		
7/7/17	21:00	flowing		
7/7/17	22:00	flowing		
7/7/17	23:00	flowing		
7/8/17	0:00	flowing		
7/8/17	1:00	flowing		
7/8/17	2:00	flowing		
7/8/17	3:00	flowing		
7/8/17	4:00	flowing		
7/8/17	5:00	flowing		
7/8/17	6:00	flowing		
7/8/17	7:00	flowing		
7/8/17 7/8/17	8:00 9:00	flowing		
7/8/17	10:00	flowing flowing		
7/8/17	11:00	flowing		
7/8/17	12:00	flowing		
7/8/17	13:00	flowing	 	
7/8/17	14:00	flowing		
7/8/17	15:00	flowing		
7/8/17	16:00	flowing		
7/8/17	17:00	flowing		
7/8/17	18:00	flowing		
7/8/17	19:00	flowing		
7/8/17	20:00	flowing		
7/8/17	21:00	flowing		
//0/1/	21.00	nowing		

Date	Time	Depth to Water/Drawdown	Elapsed Time/Recovery	Comments
Dute	111110	(ft btoc/feet)	(minutes)	
7/8/17	22:00	flowing		
7/8/17	23:00	flowing		
7/9/17	0:00	flowing		
7/9/17	1:00	flowing		
7/9/17	2:00	flowing		
7/9/17	3:00	flowing		
7/9/17	4:00	flowing		
7/9/17	5:00	flowing		
7/9/17	6:00	flowing		
7/9/17	7:00	flowing		
7/9/17	8:00	flowing		
7/9/17	9:00	flowing		
7/9/17	10:00	flowing		
7/9/17	11:00	flowing		
7/9/17	12:00	flowing		
7/9/17	13:00	flowing		
7/9/17	14:00	flowing		
7/9/17	15:00	flowing		
7/9/17	16:00	flowing		
7/9/17	17:00	flowing		
7/9/17	18:00	flowing		
7/9/17	19:00	flowing		
7/9/17	20:00	flowing		
7/9/17	21:00	flowing		
7/9/17	22:00	flowing		
7/9/17	23:00	flowing		
7/10/17	0:00	flowing		
7/10/17	1:00	flowing		
7/10/17	2:00	flowing		
7/10/17	3:00	flowing		
7/10/17 7/10/17	4:00 5:00	flowing		
	6:00	flowing		
7/10/17 7/10/17	7:00	flowing flowing		
7/10/17	8:00	flowing		
7/10/17	9:00	flowing		
7/10/17	10:00	flowing		
7/10/17	11:00	flowing		
7/10/17	11:54	flowing		Static water level used from prior to the start of pumping
7/10/17	12:00	flowing		in any onsite wells. Pump in well C-21 started at 11:55.
7/10/17	13:00	flowing		Pump in well C-23 started 12:59.
7/10/17	14:00	flowing		Tomp in wen e 25 stated 1215)
7/10/17	15:00	flowing		
7/10/17	16:00	flowing		
7/10/17	17:00	flowing		Pump in well C-14 started at 16:24.
7/10/17	17:03	0.05		Artesian flowing in well C-6 stopped.
7/10/17	18:00	2.20		Pump in well C-16 started at 17:31.
7/10/17	18:34	3.87		
7/10/17	18:35	12.25	1	Pump in well C-6 started.
7/10/17	18:36	19.95	2	Pumping rate adjusted to 50 gpm.
7/10/17	18:37	23.86	3	1 0 3
7/10/17	18:38	25.95	4	
7/10/17	18:39	26.94	5	

Date	Time	Depth to Water/Drawdown	Elapsed Time/Recovery	Comments
Date	Time	(ft btoc/feet)	(minutes)	Comments
7/10/17	18:40	27.51	6	Pumping rate in well C-6 50 gpm.
7/10/17	18:41	28.05	7	1 umping rate in wen e-0 50 gpin.
7/10/17	18:42	28.75	8	
7/10/17	18:43	28.75	9	
7/10/17	18:44	29.02	10	
7/10/17	18:45	29.43	11	
7/10/17	18:46	29.02	12	
7/10/17	18:47	29.04	13	
7/10/17	18:48	29.32	14	
7/10/17	18:49	29.58	15	
7/10/17	18:50	29.98	16	Pumping rate in well C-6 50 gpm.
7/10/17	18:55	31.88	21	
7/10/17	19:00	33.72	26	Pumping rate in well C-6 50 gpm.
7/10/17	19:05	35.38	31	
7/10/17	19:10	36.95	36	Pumping rate in well C-6 50 gpm.
7/10/17	19:15	38.34	41	
7/10/17	19:20	39.60	46	Pumping rate in well C-6 50 gpm.
7/10/17	19:25	40.88	51	D 1 1 1 1 0 6 7 0
7/10/17	19:30	42.01	56	Pumping rate in well C-6 50 gpm.
7/10/17	19:35	43.07	61	Pumping rate in well C-6 50 gpm.
7/10/17 7/10/17	20:00	47.52 55.07	86 146	Pump in well C-12 started at 19:48. Pump in well C-7B started at 21:03.
7/10/17	22:00	59.91	206	
7/10/17	23:00	65.73	266	Pumping rate in well C-6 50 gpm. Pumping rate in well C-6 50 gpm.
7/11/17	0:00	69.84	326	Pumping rate in well C-6 50 gpm.
7/11/17	1:00	73.46	386	Pumping rate in well C-6 50 gpm.
7/11/17	2:00	76.65	446	Pumping rate in well C-6 50 gpm.
7/11/17	3:00	79.15	506	Pumping rate in well C-6 50 gpm.
7/11/17	4:00	81.71	566	Pumping rate in well C-6 50 gpm.
7/11/17	5:00	83.56	626	Pumping rate in well C-6 50 gpm.
7/11/17	6:00	84.94	686	Pumping rate in well C-6 50 gpm.
7/11/17	7:00	86.08	746	Pumping rate in well C-6 50 gpm.
7/11/17	8:00	86.99	806	Pumping rate in well C-6 50 gpm.
7/11/17	9:00	88.13	866	Pumping rate in well C-6 50 gpm.
7/11/17	10:00	89.15	926	Pumping rate in well C-6 50 gpm.
7/11/17	11:00	90.10	986	Pumping rate in well C-6 50 gpm.
7/11/17	12:00	90.99	1,046	Pumping rate in well C-6 50 gpm.
7/11/17	13:00	91.86	1,106	Pumping rate in well C-6 50 gpm.
7/11/17	14:00	92.74	1,166	Pumping rate in well C-6 50 gpm.
7/11/17	15:00	93.66	1,226	Pumping rate in well C-6 50 gpm.
7/11/17	16:00	94.47	1,286	Pumping rate in well C-6 50 gpm.
7/11/17	17:00	95.19	1,346	Pumping rate in well C-6 50 gpm.
7/11/17	18:00	96.06	1,406	Pumping rate in well C-6 50 gpm.
7/11/17	19:00	96.60	1,466	Pumping rate in well C-6 50 gpm.
7/11/17 7/11/17	20:00 21:00	97.31	1,526	Pumping rate in well C-6 50 gpm. Pumping rate in well C-6 50 gpm.
7/11/17	22:00	97.88 98.47	1,586 1,646	Pumping rate in well C-6 50 gpm. Pumping rate in well C-6 50 gpm.
7/11/17	23:00	98.76	1,706	Pumping rate in well C-6 50 gpm. Pumping rate in well C-6 50 gpm.
7/11/17	0:00	99.51	1,766	Pumping rate in well C-6 50 gpm. Pumping rate in well C-6 50 gpm.
7/12/17	1:00	100.21	1,826	Pumping rate in well C-6 50 gpm.
7/12/17	2:00	100.21	1,886	Pumping rate in well C-6 50 gpm.
7/12/17	3:00	100.71	1,946	Pumping rate in well C-6 50 gpm.
7/12/17	4:00	101.18	2,006	Pumping rate in well C-6 50 gpm.
7/12/17	5:00	101.93	2,066	Pumping rate in well C-6 50 gpm.
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Date	Time	Depth to Water/Drawdown (ft btoc/feet)	Elapsed Time/Recovery (minutes)	Comments
7/12/17	6:00	102.49	2,126	Pumping rate in well C-6 50 gpm.
7/12/17	7:00	103.03	2,186	Pumping rate in well C-6 50 gpm.
7/12/17	8:00	103.72	2,246	Pumping rate in well C-6 50 gpm.
7/12/17	9:00	104.33	2,306	Pumping rate in well C-6 50 gpm.
7/12/17	10:00	105.05	2,366	Pumping rate in well C-6 50 gpm.
7/12/17	11:00	105.59	2,426	Pumping rate in well C-6 50 gpm.
7/12/17	12:00	106.15	2,486	Pump in well C-7B shut down at 11:28 and pump in well C-21 shut down at 11:56.
7/12/17	13:00	106.65	2,546	Pumping rate in well C-6 50 gpm.
7/12/17	14:00	107.42	2,606	Pumping rate in well C-6 50 gpm.
7/12/17	15:00	107.99	2,666	Pumping rate in well C-6 50 gpm.
7/12/17	16:00	108.45	2,726	Pumping rate in well C-6 50 gpm.
7/12/17	17:00	108.88	2,786	Pumping rate in well C-6 50 gpm.
7/12/17	18:00	109.44	2,846	Pumping rate in well C-6 50 gpm.
7/12/17	18:54	109.94	2,900	Pumping rate in well C-6 manually decreased.
7/12/17	19:00	107.47	2,906	Pumping rate in well C-6 45 gpm.
7/12/17	20:00	106.60	2,966	Pumping rate in well C-6 45 gpm.
7/12/17	21:00	106.60	3,026	Pumping rate in well C-6 45 gpm.
7/12/17	22:00	106.67	3,086	Pumping rate in well C-6 45 gpm.
7/12/17	23:00	106.82	3,146	Pumping rate in well C-6 45 gpm.
				Promping rate in well C-6 45 gpm.
7/13/17	0:00	107.11	3,206	Pumping rate in well C-6 45 gpm.
7/13/17	1:00	107.37	3,266	Pumping rate in well C-6 45 gpm.
7/13/17	2:00	107.61	3,326	Pumping rate in well C-6 45 gpm.
7/13/17	3:00	107.87	3,386	Pumping rate in well C-6 45 gpm.
7/13/17	4:00	108.13	3,446	Pumping rate in well C-6 45 gpm.
7/13/17	4:03	98.07	3,449	Generator shut down.
7/13/17	5:00	69.19	3,506	
7/13/17	5:26	74.34	3,532	Generator restarted.
7/13/17	6:00	96.59	3,566	Pumping rate in well C-6 45 gpm.
7/13/17	7:00	101.50	3,626	Pumping rate in well C-6 45 gpm.
7/13/17	8:00	103.99	3,686	Pumping rate in well C-6 45 gpm.
7/13/17	9:00	105.64	3,746	Pumping rate in well C-6 45 gpm.
7/13/17	10:00	106.90	3,806	Pumping rate in well C-6 45 gpm.
7/13/17	11:00	107.92	3,866	Pumping rate in well C-6 45 gpm.
7/13/17	12:00	108.80	3,926	Pumping rate in well C-6 45 gpm.
7/13/17	13:00	109.55	3,986	Pumping rate in well C-6 45 gpm.
7/13/17	14:00	110.09	4,046	Pumping rate in well C-6 45 gpm.
7/13/17	15:00	110.50	4,106	Pumping rate in well C-6 45 gpm.
7/13/17	16:00	111.00	4,166	Pumping rate in well C-6 45 gpm.
7/13/17	17:00	111.51	4,226	Pumping rate in well C-6 45 gpm.
7/13/17	18:00	111.81	4,286	Pumping rate in well C-6 45 gpm.
7/13/17	19:00	112.20	4,346	Pumping rate in well C-6 45 gpm.
7/13/17	20:00	112.54	4,406	Pumping rate in well C-6 45 gpm.
7/13/17	20:06	112.07	4,412	Generator shut down down.
7/13/17	21:00	73.23	4,466	
7/13/17	21:12	77.44	4,478	Generator restarted.
7/13/17	22:00	104.77	4,526	Pumping rate in well C-6 45 gpm.
7/13/17	23:00	107.76	4,586	Pumping rate in well C-6 45 gpm.
7/14/17	0:00	109.46	4,646	Pumping rate in well C-6 45 gpm.
7/14/17	1:00	110.36	4,706	Pumping rate in well C-6 45 gpm.
7/14/17	2:00	111.28	4,766	Pumping rate in well C-6 45 gpm.
7/14/17	3:00	111.28	4,826	Pumping rate in well C-6 45 gpm.
7/14/17	4:00	111.93	4,886	Pumping rate in well C-6 45 gpm.
7/14/17	5:00		4,946	Pumping rate in well C-6 45 gpm.
//14/1/	3:00	112.87	4,940	Pumping rate in Well C-6 45 gpm.

Date	Time	Depth to Water/Drawdown (ft btoc/feet)	Elapsed Time/Recovery (minutes)	Comments
7/14/17	6:00	113.24	5,006	Pumping rate in well C-6 45 gpm.
7/14/17	7:00	113.68	5,066	Pumping rate in well C-6 45 gpm.
7/14/17	8:00	113.97	5,126	Pumping rate in well C-6 45 gpm.
7/14/17	9:00	114.32	5,186	Pumping rate in well C-6 45 gpm.
7/14/17	10:00	114.64	5,246	Pumping rate in well C-6 45 gpm.
7/14/17	11:00	114.99	5,306	Pumping rate in well C-6 45 gpm.
7/14/17	12:00	115.29	5,366	Pumping rate in well C-6 45 gpm.
7/14/17	13:00	115.56	5,426	Pumping rate in well C-6 45 gpm.
7/14/17	14:00	115.84	5,486	Pumping rate in well C-6 45 gpm.
7/14/17	15:00	116.14	5,546	Pumping rate in well C-6 45 gpm.
7/14/17	16:00	116.37	5,606	Pumping rate in well C-6 45 gpm.
7/14/17	17:00	116.67	5,666	Pumping rate in well C-6 45 gpm.
7/14/17	18:00	116.89	5,726	Pumping rate in well C-6 45 gpm.
7/14/17	19:00	117.14	5,786	Pumping rate in well C-6 45 gpm.
7/14/17	20:00	117.39	5,846	Pumping rate in well C-6 45 gpm.
7/14/17	21:00	117.60	5,906	Pumping rate in well C-6 45 gpm.
7/14/17	22:00	117.75	5,966	Pumping rate in well C-6 45 gpm.
7/14/17	23:00	118.16	6,026	Pumping rate in well C-6 45 gpm.
7/15/17	0:00	118.48	6,086	Pumping rate in well C-6 45 gpm.
7/15/17	0:35	117.91	6,121	Generator shut down.
7/15/17	0:56	87.25	6,142	Generator restarted.
7/15/17	1:00	104.11	6,146	Pumping rate in well C-6 45 gpm.
7/15/17	2:00	115.65	6,206	Pumping rate in well C-6 45 gpm.
7/15/17	3:00	116.72	6,266	Pumping rate in well C-6 45 gpm.
7/15/17	4:00	117.27	6,326	Pumping rate in well C-6 45 gpm.
7/15/17	5:00	117.76	6,386	Pumping rate in well C-6 45 gpm.
7/15/17	6:00	118.13	6,446	Pumping rate in well C-6 45 gpm.
7/15/17	7:00	118.40	6,506	Pumping rate in well C-6 45 gpm.
7/15/17	8:00	118.71	6,566	Pumping rate in well C-6 45 gpm.
7/15/17	9:00	119.10	6,626	Pumping rate in well C-6 45 gpm.
7/15/17	10:00	119.40	6,686	Pumping rate in well C-6 45 gpm.
7/15/17	11:00	119.62	6,746	Pumping rate in well C-6 45 gpm.
7/15/17	12:00	119.93	6,806	Pumping rate in well C-6 45 gpm.
7/15/17	13:00	120.17	6,866	Pumping rate in well C-6 45 gpm.
7/15/17	14:00	120.43	6,926	Pumping rate in well C-6 45 gpm.
7/15/17	15:00	120.64	6,986	Pumping rate in well C-6 45 gpm.
7/15/17	16:00	120.99	7,046	Pumping rate in well C-6 45 gpm.
7/15/17	17:00	121.23	7,106	Pumping rate in well C-6 45 gpm.
7/15/17	18:00	121.43	7,166	Pumping rate in well C-6 45 gpm.
7/15/17	19:00	121.69	7,226	Pumping rate in well C-6 45 gpm.
7/15/17	19:09	121.73	7,235	Pumping rate in well C-6 45 gpm.
7/15/17	19:11	121.71	7,237	Pumping rate in well C-6 45 gpm.
7/15/17	20:00	121.88	7,286	Pumping rate in well C-6 45 gpm.
7/15/17	21:00	122.11	7,346	Pumping rate in well C-6 45 gpm.
7/15/17	22:00	122.27	7,406	Pumping rate in well C-6 45 gpm.
7/15/17	23:00	122.51	7,466	Pumping rate in well C-6 45 gpm.
7/16/17	0:00	122.68	7,526	Pumping rate in well C-6 45 gpm.
7/16/17	1:00	122.87	7,586	Pumping rate in well C-6 45 gpm.
7/16/17	1:09	122.92	7,595	Shut down of simultaneous pumping test (wells C-6, 12, 14, 16, and 23) started.
7/16/17	1:10	122.90	7,596	Pumping rate in well C-6 45 gpm.
7/16/17	1:11	122.87	7,597	Pump in well C-6 shut down.
7/16/17	1:12	115.90	-1	-
7/16/17	1:13	108.73	-2	

Date	Time	Depth to Water/Drawdown	Elapsed Time/Recovery	Comments
Dute	111110	(ft btoc/feet)	(minutes)	Comments
7/16/17	1:14	104.58	-3	
7/16/17	1:15	101.79	-4	
7/16/17	1:16	99.68	-5	
7/16/17	1:17	98.03	-6	
7/16/17	1:18	96.67	-7	
7/16/17	1:19	95.54	-8	
7/16/17	1:20	94.57	-9	
7/16/17	1:21	93.69	-10	
7/16/17	1:22	93.00	-11	
7/16/17	1:23	92.33	-12	
7/16/17	1:24	91.75	-13	
7/16/17	1:25	91.22	-14	
7/16/17	1:26	90.79	-15	
7/16/17	1:30	89.23	-19	
7/16/17	1:35	87.85	-24	
7/16/17	1:40	86.73	-29	
7/16/17	1:45	85.81	-34	
7/16/17	1:50	84.97	-39	
7/16/17	1:55	84.27	-44	
7/16/17	2:00	83.60	-49	
7/16/17	2:05	82.98	-54	
7/16/17	2:10	82.45	-59	
7/16/17	3:00	78.10	-109	
7/16/17	4:00	74.60	-169	
7/16/17	5:00 6:00	71.88 69.70	-229 -289	
7/16/17	7:00	67.85	-289	
7/16/17	8:00	65.85	-409	
7/16/17	9:00	63.98	-469	
7/16/17	10:00	62.23	-529	
7/16/17	11:00	60.55	-589	
7/16/17	12:00	58.89	-649	
7/16/17	13:00	57.30	-709	
7/16/17	14:00	55.37	-769	
7/16/17	15:00	53.58	-829	
7/16/17	16:00	51.78	-889	
7/16/17	17:00	50.15	-949	
7/16/17	18:00	48.58	-1,009	
7/16/17	19:00	47.17	-1,069	
7/16/17	20:00	45.76	-1,129	
7/16/17	21:00	44.45	-1,189	
7/16/17	22:00	43.12	-1,249	
7/16/17	23:00	41.88	-1,309	
7/17/17	0:00	40.65	-1,369	
7/17/17	1:00	39.48	-1,429	
7/17/17	2:00	38.28	-1,489	
7/17/17	3:00	37.18	-1,549	
7/17/17	4:00	36.14	-1,609	
7/17/17	5:00	35.11	-1,669	
7/17/17	6:00	34.03	-1,729	
7/17/17	7:00	33.01	-1,789	
7/17/17	8:00	31.98	-1,849	
7/17/17	9:00	30.99	-1,909	
7/17/17	10:00	29.95	-1,969	

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Date	Time	Depth to Water/Drawdown (ft btoc/feet)	Elapsed Time/Recovery (minutes)	Comments
7/17/17	11:00	28.89	-2,029	
7/17/17	12:00	27.92	-2,089	
7/17/17	13:00	26.94	-2,149	
7/17/17	14:00	26.00	-2,209	
7/17/17	15:00	25.11	-2,269	
7/17/17	16:00	24.26	-2,329	
7/17/17	17:00	23.46	-2,389	
7/17/17	18:00	22.67	-2,449	
7/17/17	19:00	21.91	-2,509	
7/17/17	20:00	21.18	-2,569	
7/17/17	21:00	20.41	-2,629	
7/17/17	22:00	19.69	-2,689	
7/17/17	23:00	18.93	-2,749	
7/18/17	0:00	18.21	-2,809	
7/18/17	1:00	17.49	-2,869	
7/18/17	2:00 3:00	16.81 16.14	-2,929 -2,989	
7/18/17	4:00	15.54	-2,989	
7/18/17	5:00	14.92	-3,109	
7/18/17	6:00	14.34	-3,169	
7/18/17	7:00	13.83	-3,229	
7/18/17	8:00	13.28	-3,289	
7/18/17	9:00	12.80	-3,349	
7/18/17	10:00	12.30	-3,409	90% recovery achieved.
7/18/17	11:00	11.80	-3,469	your receivery demoved.
7/18/17	12:00	11.37	-3,529	
7/18/17	13:00	10.93	-3,589	
7/18/17	14:00	10.47	-3,649	
7/18/17	15:00	10.06	-3,709	
7/18/17	16:00	9.66	-3,769	
7/18/17	17:00	9.28	-3,829	
7/18/17	18:00	8.95	-3,889	
7/18/17	19:00	8.58	-3,949	
7/18/17	20:00	8.22	-4,009	
7/18/17	21:00	7.90	-4,069	
7/18/17	22:00	7.55	-4,129	
7/18/17	23:00	7.24	-4,189	
7/19/17	0:00	6.94	-4,249	
7/19/17	1:00	6.63	-4,309	
7/19/17	2:00	6.35	-4,369	
7/19/17 7/19/17	3:00 4:00	6.07 5.79	-4,429 -4,489	
7/19/17	5:00	5.55	-4,489 -4,549	
7/19/17	6:00	5.28	-4,609	
7/19/17	7:00	5.13	-4,669	
7/19/17	8:00	4.85	-4,729	
7/19/17	9:00	4.61	-4,789	
7/19/17	10:00	4.42	-4,849	
7/19/17	11:00	4.22	-4,909	
7/19/17	12:00	3.96	-4,969	
7/19/17	13:00	3.71	-5,029	
7/19/17	14:00	3.49	-5,089	
7/19/17	15:00	3.30	-5,149	
7/19/17	16:00	3.13	-5,209	

Date	Time	Depth to Water/Drawdown	Elapsed Time/Recovery (minutes)	Comments
7/10/17	17.00	(ft btoc/feet)	5.260	
7/19/17 7/19/17	17:00 18:00	2.92 2.80	-5,269 -5,329	
7/19/17	19:00	2.60	-5,389	
7/19/17	20:00	2.43	-5,449	
7/19/17	21:00	2.28	-5,509	
7/19/17	22:00	2.15	-5,569	
7/19/17	23:00	1.96	-5,629	
7/20/17	0:00	1.83	-5,689	
7/20/17	1:00	1.68	-5,749	
7/20/17 7/20/17	2:00	1.55	-5,809	
	3:00	1.40	-5,869	
7/20/17	4:00	1.31	-5,929	
7/20/17	5:00	1.17	-5,989	
7/20/17	6:00	1.06	-6,049	
7/20/17 7/20/17	7:00 8:00	0.95 0.86	-6,109 -6,169	
			-6,169 -6,229	
7/20/17	9:00	0.74		
7/20/17	10:00	0.65 0.51	-6,289 -6,349	
7/20/17	11:00			
7/20/17	12:00	0.39	-6,409	
7/20/17	13:00	0.27	-6,469	
7/20/17	14:00	0.16	-6,529	
7/20/17	15:00	0.06	-6,589	W-11 C (1 A florest delication and
7/20/17 7/20/17	16:00	flowing	-6,649	Well C-6 began to flow artesian again.
	17:00	flowing	-6,709	
7/20/17 7/20/17	18:00 19:00	flowing	-6,769 -6,829	
		flowing		
7/20/17	20:00	flowing	-6,889	
7/20/17	22:00	flowing flowing	-6,949 -7,009	
7/20/17 7/20/17	23:00	flowing	-7,009 -7,069	
7/20/17	0:00	flowing	-7,129	
7/21/17	1:00		-7,129 -7,189	
7/21/17	2:00	flowing flowing	-7,189	
7/21/17	3:00		-7,309	
7/21/17	4:00	flowing flowing	-7,369	
7/21/17	5:00	flowing	-7,429	
7/21/17	6:00	flowing	-7,489	
7/21/17	7:00	flowing	-7,549	
7/21/17	8:00	flowing	-7,609	
7/21/17	9:00	flowing	-7,669	
7/21/17	10:00	flowing	-7,729	
7/21/17	11:00	flowing	-7,789	
7/21/17	12:00	flowing	-7,789	
7/21/17	13:00	flowing	-7,909	
7/21/17	14:00	flowing	-7,969	
7/21/17	15:00	flowing	-8,029	
7/21/17	16:00	flowing	-8,089	
7/21/17	17:00	flowing	-8,149	
7/21/17	18:00	flowing	-8,209	
7/21/17	19:00	flowing	-8,269	
7/21/17	20:00	flowing	-8,329	
7/21/17	21:00	flowing	-8,389	
7/21/17	22:00	flowing	-8,449	
//21/1/	22.00	nowing	0,777	

Date	Time	Depth to Water/Drawdown (ft btoc/feet)	Elapsed Time/Recovery (minutes)	Comments
7/21/17	23:00	flowing	-8,509	
7/22/17	0:00	flowing	-8,569	
7/22/17	1:00	flowing	-8,629	
7/22/17	2:00	flowing	-8,689	
7/22/17	3:00	flowing	-8,749	
7/22/17	4:00	flowing	-8,809	
7/22/17	5:00	flowing	-8,869	
7/22/17	6:00	flowing	-8,929	
7/22/17	7:00	flowing	-8,989	
7/22/17	8:00	flowing	-9,049	
7/22/17	9:00	flowing	-9,109	
7/22/17	10:00	flowing	-9,169	
7/22/17	11:00	flowing	-9,229	
7/22/17	12:00	flowing	-9,289	
7/22/17	13:00	flowing	-9,349	
7/22/17	14:00	flowing	-9,409	
7/22/17	15:00	flowing	-9,469	
7/22/17	16:00	flowing	-9,529	
7/22/17	17:00	flowing	-9,589	
7/22/17	18:00	flowing	-9,649	
7/22/17	19:00	flowing	-9,709	
7/22/17	20:00	flowing	-9,769	
7/22/17 7/22/17	21:00	flowing	-9,829	
	22:00	flowing	-9,889	
7/22/17 7/23/17	23:00	flowing	-9,949 -10,009	
7/23/17	0:00 1:00	flowing flowing	-10,009	
7/23/17	2:00	flowing	-10,129	
7/23/17	3:00	flowing	-10,129	
7/23/17	4:00	flowing	-10,189	
7/23/17	5:00	flowing	-10,309	
7/23/17	6:00	flowing	-10,369	
7/23/17	7:00	flowing	-10,429	
7/23/17	8:00	flowing	-10,489	
7/23/17	9:00	flowing	-10,549	
7/23/17	10:00	flowing	-10,609	
7/23/17	11:00	flowing	-10,669	
7/23/17	12:00	flowing	-10,729	
7/23/17	13:00	flowing	-10,789	
7/23/17	14:00	flowing	-10,849	
7/23/17	15:00	flowing	-10,909	
7/23/17	16:00	flowing	-10,969	
7/23/17	17:00	flowing	-11,029	
7/23/17	18:00	flowing	-11,089	
7/23/17	19:00	flowing	-11,149	
7/23/17	20:00	flowing	-11,209	
7/23/17	21:00	flowing	-11,269	
7/23/17	22:00	flowing	-11,329	
7/23/17	23:00	flowing	-11,389	
7/24/17	0:00	flowing	-11,449	
7/24/17	1:00	flowing	-11,509	
7/24/17	2:00	flowing	-11,569	
7/24/17	3:00	flowing	-11,629	
7/24/17	4:00	flowing	-11,689	

Date	Time	Depth to Water/Drawdown (ft btoc/feet)	Elapsed Time/Recovery (minutes)	Comments
7/24/17	5:00	flowing	-11,749	
7/24/17	6:00	flowing	-11,809	
7/24/17	7:00	flowing	-11,869	
7/24/17	8:00	flowing	-11,929	
7/24/17	9:00	flowing	-11,989	
7/24/17	10:00	flowing	-12,049	
7/24/17	11:00	flowing	-12,109	
7/24/17	12:00	flowing	-12,169	
7/24/17	13:00	flowing	-12,229	
7/24/17	14:00	flowing	-12,289	
7/24/17	15:00	flowing	-12,349	
7/24/17	16:00	flowing	-12,409	
7/24/17	17:00	flowing	-12,469	
7/24/17	18:00	flowing	-12,529	
7/24/17	19:00	flowing	-12,589	
7/24/17	20:00	flowing	-12,649	
7/24/17	21:00	flowing	-12,709	
7/24/17	22:00	flowing	-12,769	
7/24/17	23:00	flowing	-12,829	
7/25/17	0:00	flowing	-12,889	
7/25/17 7/25/17	1:00	flowing	-12,949 -13,009	
7/25/17	2:00 3:00	flowing flowing	-13,069	
7/25/17	4:00	flowing	-13,129	
7/25/17	5:00	flowing	-13,129	
7/25/17	6:00	flowing	-13,249	
7/25/17	7:00	flowing	-13,309	
7/25/17	8:00	flowing	-13,369	
7/25/17	9:00	flowing	-13,429	
7/25/17	10:00	flowing	-13,489	
7/25/17	11:00	flowing	-13,549	Pump in well C-21 started at 11:44.
7/25/17	12:00	flowing	-13,609	•
7/25/17	13:00	flowing	-13,669	
7/25/17	14:00	flowing	-13,729	
7/25/17	15:00	flowing	-13,789	
7/25/17	16:00	flowing	-13,849	
7/25/17	17:00	flowing	-13,909	
7/25/17	18:00	flowing	-13,969	
7/25/17	19:00	flowing	-14,029	
7/25/17	20:00	flowing	-14,089	
7/25/17	21:00	flowing	-14,149	
7/25/17	22:00	flowing	-14,209	
7/25/17	23:00	flowing	-14,269	
7/26/17	0:00	flowing	-14,329	
7/26/17 7/26/17	1:00	flowing	-14,389	
7/26/17	2:00 3:00	flowing flowing	-14,449 -14,509	
7/26/17	4:00	flowing	-14,569	
7/26/17	5:00	flowing	-14,569	
7/26/17	6:00	flowing	-14,689	
7/26/17	7:00	flowing	-14,749	
7/26/17	8:00	flowing	-14,809	
7/26/17	9:00	flowing	-14,869	
7/26/17	10:00	flowing	-14,929	
		0	<i>/-</i> -	

Date	Time	Depth to Water/Drawdown	Elapsed Time/Recovery (minutes)	Comments
		(ft btoc/feet)	,	
7/26/17	11:00	flowing	-14,989	
7/26/17	12:00	flowing	-15,049	
7/26/17	13:00	flowing	-15,109	
7/26/17	14:00	flowing	-15,169	
7/26/17	15:00	flowing	-15,229	
7/26/17	16:00	flowing	-15,289	
7/26/17 7/26/17	17:00 18:00	flowing	-15,349	
7/26/17	19:00	flowing flowing	-15,409 -15,469	
7/26/17	20:00	flowing	-15,529	
7/26/17	21:00	flowing	-15,589	
7/26/17	22:00	flowing	-15,649	
7/26/17	23:00	flowing	-15,709	
7/27/17	0:00	flowing	-15,769	
7/27/17	1:00	flowing	-15,829	
7/27/17	2:00	flowing	-15,889	
7/27/17	3:00	flowing	-15,949	
7/27/17	4:00	flowing	-16,009	
7/27/17	5:00	flowing	-16,069	
7/27/17	6:00	flowing	-16,129	
7/27/17	7:00	flowing	-16,189	
7/27/17	8:00	flowing	-16,249	
7/27/17	9:00	flowing	-16,309	
7/27/17	10:00	flowing	-16,369	
7/27/17	11:00	flowing	-16,429	
7/27/17	12:00	flowing	-16,489	
7/27/17	13:00	flowing	-16,549	
7/27/17	14:00	flowing	-16,609	
7/27/17	15:00	flowing	-16,669	
7/27/17	16:00	flowing	-16,729	
7/27/17	17:00	flowing	-16,789	
7/27/17	18:00	flowing	-16,849	
7/27/17	19:00	flowing	-16,909	
7/27/17	20:00	flowing	-16,969	
7/27/17	21:00	flowing	-17,029	
7/27/17	22:00	flowing	-17,089	
7/27/17	23:00	flowing	-17,149	
7/28/17	0:00	flowing	-17,209	
7/28/17	1:00	flowing	-17,269	
7/28/17	2:00	flowing	-17,329	
7/28/17 7/28/17	3:00	flowing flowing	-17,389 -17,449	
	4:00		-17,449	
7/28/17 7/28/17	5:00 6:00	flowing flowing	-17,569 -17,569	
7/28/17	7:00	flowing	-17,629	
7/28/17	8:00	flowing	-17,689	
7/28/17	9:00	flowing	-17,749	
7/28/17	10:00	flowing	-17,809	
7/28/17	11:00	flowing	-17,869	
7/28/17	12:00	flowing	-17,929	Pump in well C-21 shut down at 12:15.
7/28/17	13:00	flowing	-17,989	
7/28/17	14:00	flowing	-18,049	
7/28/17	15:00	flowing	-18,109	
7/28/17	16:00	flowing	-18,169	

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		Depth to	Elapsed Time/Recovery	
Date	Time	Water/Drawdown	(minutes)	Comments
		(ft btoc/feet)	,	
7/28/17	17:00	flowing	-18,229	
7/28/17	18:00	flowing	-18,289	
7/28/17	19:00	flowing	-18,349	
7/28/17	20:00	flowing	-18,409	
7/28/17 7/28/17	21:00 22:00	flowing	-18,469 -18,529	
7/28/17	23:00	flowing	-18,529 -18,589	
7/28/17	0:00	flowing flowing	-18,589	
7/29/17	1:00	flowing	-18,709	
7/29/17	2:00	flowing	-18,769	
7/29/17	3:00	flowing	-18,829	
7/29/17	4:00	flowing	-18,889	
7/29/17	5:00	flowing	-18,949	
7/29/17	6:00	flowing	-19,009	
7/29/17	7:00	flowing	-19,069	
7/29/17	8:00	flowing	-19,129	
7/29/17	9:00	flowing	-19,189	
7/29/17	10:00	flowing	-19,249	
7/29/17	11:00	flowing	-19,309	
7/29/17	12:00	flowing	-19,369	
7/29/17	13:00	flowing	-19,429	
7/29/17	14:00	flowing	-19,489	
7/29/17	15:00	flowing	-19,549	
7/29/17	16:00	flowing	-19,609	
7/29/17	17:00	flowing	-19,669	
7/29/17	18:00	flowing	-19,729	
7/29/17	19:00	flowing	-19,789	
7/29/17	20:00	flowing	-19,849	
7/29/17	21:00	flowing	-19,909	
7/29/17	22:00	flowing	-19,969	
7/29/17	23:00	flowing	-20,029	
7/30/17	0:00	flowing	-20,089	
7/30/17	1:00	flowing	-20,149	
7/30/17	2:00	flowing	-20,209	
7/30/17	3:00	flowing	-20,269	
7/30/17	4:00	flowing	-20,329	
7/30/17	5:00	flowing	-20,389	
7/30/17	6:00	flowing	-20,449	
7/30/17	7:00	flowing	-20,509	
7/30/17	8:00	flowing	-20,569	
7/30/17	9:00	flowing	-20,629	
7/30/17	10:00	flowing	-20,689	
7/30/17	11:00	flowing	-20,749	
7/30/17	12:00	flowing	-20,809	
7/30/17	13:00	flowing	-20,869	
7/30/17	14:00	flowing	-20,929	
7/30/17	15:00	flowing	-20,989	
7/30/17	16:00	flowing	-21,049	
7/30/17	17:00	flowing	-21,109	
7/30/17	18:00	flowing	-21,169	
7/30/17	19:00	flowing	-21,229	
7/30/17	20:00	flowing	-21,289	
7/30/17	21:00	flowing	-21,349	
7/30/17	22:00	flowing	-21,409	

Date	Time	Depth to Water/Drawdown	Elapsed Time/Recovery (minutes)	Comments
		(ft btoc/feet)	` '	
7/30/17	23:00	flowing	-21,469	
7/31/17	0:00	flowing	-21,529	
7/31/17	1:00	flowing	-21,589	
7/31/17	2:00	flowing	-21,649	
7/31/17	3:00	flowing	-21,709	
7/31/17	4:00	flowing	-21,769	
7/31/17	5:00	flowing	-21,829	
7/31/17	6:00	flowing	-21,889	
7/31/17	7:00	flowing	-21,949	
7/31/17	8:00	flowing	-22,009	
7/31/17	9:00	flowing	-22,069	
7/31/17	10:00	flowing	-22,129	
7/31/17 7/31/17	11:00 12:00	flowing	-22,189 -22,249	
7/31/17	13:00	flowing flowing	-22,309	
7/31/17	14:00	flowing	-22,369	
7/31/17	15:00	flowing	-22,369	
7/31/17	16:00	flowing	-22,489	
7/31/17	17:00	flowing	-22,549	
7/31/17	18:00	flowing	-22,609	
7/31/17	19:00	flowing	-22,669	
7/31/17	20:00	flowing	-22,729	
7/31/17	21:00	flowing	-22,789	
7/31/17	22:00	flowing	-22,849	
7/31/17	23:00	flowing	-22,909	
8/1/17	0:00	flowing	-22,969	
8/1/17	1:00	flowing	-23,029	
8/1/17	2:00	flowing	-23,089	
8/1/17	3:00	flowing	-23,149	
8/1/17	4:00	flowing	-23,209	
8/1/17	5:00	flowing	-23,269	
8/1/17	6:00	flowing	-23,329	
8/1/17	7:00	flowing	-23,389	
8/1/17	8:00	flowing	-23,449	
8/1/17	9:00	flowing	-23,509	
8/1/17	10:00	flowing	-23,569	
8/1/17	11:00	flowing	-23,629	
8/1/17	12:00	flowing	-23,689	
8/1/17	13:00	flowing	-23,749	
8/1/17	14:00	flowing	-23,809	
8/1/17	15:00	flowing	-23,869	
8/1/17	16:00	flowing	-23,929	
8/1/17	17:00	flowing	-23,989	
8/1/17	18:00	flowing	-24,049	
8/1/17 8/1/17	19:00 20:00	flowing	-24,109 24,160	
8/1/17	20:00	flowing	-24,169 -24,229	
8/1/17	21:00	flowing flowing	-24,229 -24,289	
8/1/17	23:00	flowing	-24,289	
8/2/17	0:00	flowing	-24,409	
8/2/17	1:00	flowing	-24,469	
8/2/17	2:00	flowing	-24,529	
8/2/17	3:00	flowing	-24,589	
8/2/17	4:00	flowing	-24,649	
0/2/1/	7.00	nowing	-27,047	

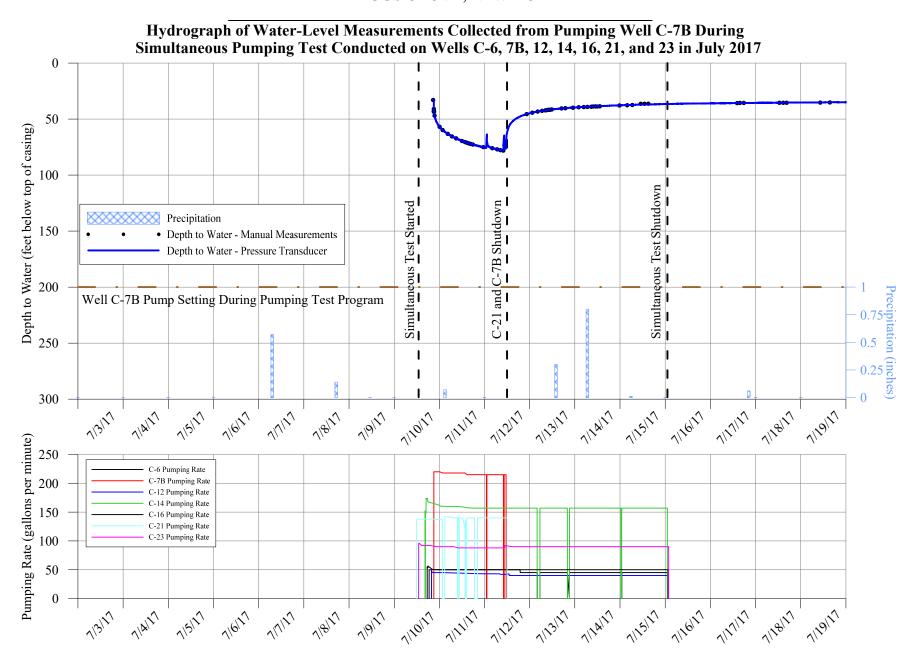
Summary of Water-Level Measurements from Pressure Transducer Installed in Well C-6 Collected During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Depth to Water/Drawdown (ft btoc/feet)	Elapsed Time/Recovery (minutes)	Comments
8/2/17	5:00	flowing	-24,709	
8/2/17	6:00	flowing	-24,769	
8/2/17	7:00	flowing	-24,829	
8/2/17	8:00	flowing	-24,889	
8/2/17	9:00	flowing	-24,949	
8/2/17	10:00	flowing	-25,009	
8/2/17	11:00	flowing	-25,069	
8/2/17	12:00	flowing	-25,129	
8/2/17	13:00	flowing	-25,189	
8/2/17	14:00	flowing	-25,249	
8/2/17	15:00	flowing	-25,309	
8/2/17	16:00	flowing	-25,369	
8/2/17	17:00	flowing	-25,429	
8/2/17	18:00	flowing	-25,489	
8/2/17	19:00	flowing	-25,549	
8/2/17	20:00	flowing	-25,609	
8/2/17	21:00	flowing	-25,669	
8/2/17	22:00	flowing	-25,729	
8/2/17	23:00	flowing	-25,789	
8/3/17	0:00	flowing	-25,849	
8/3/17	1:00	flowing	-25,909	
8/3/17	2:00	flowing	-25,969	
8/3/17	3:00	flowing	-26,029	
8/3/17	4:00	flowing	-26,089	
8/3/17	5:00	flowing	-26,149	
8/3/17	6:00	flowing	-26,209	
8/3/17	7:00	flowing	-26,269	
8/3/17	8:00	flowing	-26,329	
8/3/17	9:00	flowing	-26,389	
8/3/17	10:00	flowing	-26,449	
8/3/17	11:00	flowing	-26,509	
8/3/17	12:00	flowing	-26,569	
8/3/17	13:00	flowing	-26,629	
8/3/17	14:00	flowing	-26,689	
8/3/17	15:00	flowing	-26,749	
8/3/17	16:00	flowing	-26,809	
8/3/17	17:00	flowing	-26,869	
8/3/17	18:00	flowing	-26,929	
8/3/17	19:00	flowing	-26,989	
8/3/17	20:00	flowing	-27,049	
8/3/17	21:00	flowing	-27,109	
8/3/17	22:00	flowing	-27,169	
8/3/17	23:00	flowing	-27,229	

ft btoc feet below top of casing gpm gallons per minute

H:\Lake Anne\Clovewood\2017\July Pumping Test Report\C-6 Table.docx

C-7B



Date	Time	Depth to Water (ft btoc)	Elapsed Time/Recovery (minutes)	Drawdown (feet)	Comments
7/3/17	0:00	32.10			
7/3/17	1:00	32.08			
7/3/17	2:00	32.12			
7/3/17	3:00	32.09			
7/3/17	4:00	32.10			
7/3/17	5:00	32.11	1		
7/3/17	6:00	32.15			
7/3/17	7:00	32.17	-		
7/3/17	8:00	32.19			
7/3/17	9:00	32.23			
7/3/17	10:00	32.25			
7/3/17	11:00	32.26			
7/3/17	12:00	32.27			
7/3/17	13:00	32.32			
7/3/17	14:00	32.26			
7/3/17	15:00	32.28			
7/3/17	16:00	32.31			
7/3/17	17:00	32.32			
7/3/17	18:00	32.39			
7/3/17	19:00	32.37			
7/3/17	20:00	32.40			
7/3/17	21:00	32.42	-		
7/3/17	22:00	32.43	-		
7/3/17	23:00	32.46	-		
7/4/17	0:00	32.41	-		
7/4/17	1:00	32.43	1		
7/4/17	2:00	32.37	1		
7/4/17	3:00	32.40	1		
7/4/17	4:00	32.36			
7/4/17	5:00	32.34	-		
7/4/17	6:00	32.36			
7/4/17	7:00	32.37			
7/4/17	8:00	32.42	-		
7/4/17	9:00	32.41			
7/4/17	10:00	32.41			
7/4/17	11:00	32.44	-		
7/4/17	12:00	32.49	-		
7/4/17	13:00	32.82			
7/4/17	14:00	32.33			
7/4/17	15:00	32.37			
7/4/17	16:00	32.35			
7/4/17	17:00	32.41			
7/4/17	18:00	32.39			
7/4/17	19:00	32.42			
7/4/17	20:00	32.48			
7/4/17	21:00	32.50			
7/4/17	22:00	32.52			
7/4/17	23:00	32.53			
7/5/17	0:00	32.51			
7/5/17	1:00	32.51	-		
7/5/17	2:00	32.50			
7/5/17	3:00	32.48	-1		
7/5/17	4:00	32.48	-		
7/5/17	5:00	32.47			
7/5/17	6:00	32.47			
U-		•			

Date	Time	Depth to Water (ft btoc)	Elapsed Time/Recovery (minutes)	Drawdown (feet)	Comments
7/5/17	7:00	32.49			
7/5/17	8:00	32.52			
7/5/17	9:00	32.52			
7/5/17	10:00	32.52			
7/5/17	11:00	32.53			
7/5/17	12:00	32.52			
7/5/17	13:00	32.50			
7/5/17	14:00	32.49			
7/5/17	15:00	32.48	1		
7/5/17	16:00	32.47	1		
7/5/17	17:00	32.46	-		
7/5/17	18:00	32.46	1		
7/5/17	19:00	32.46	-		
7/5/17	20:00	32.50	-		
7/5/17	21:00	32.51			
7/5/17	22:00	32.53			
7/5/17	23:00	32.53			
7/6/17	0:00	32.52			
7/6/17	1:00	32.50	-		
7/6/17	2:00	32.49	-		
7/6/17	3:00	32.47			
7/6/17	4:00	32.45			
7/6/17	5:00	32.46			
7/6/17	6:00	32.46			
7/6/17	7:00	32.49			
7/6/17	8:00	32.52			
7/6/17	9:00	32.55			
7/6/17	10:00	32.56			
7/6/17	11:00	32.57			
7/6/17	12:00	32.56			
7/6/17	13:00	32.56			
7/6/17	14:00	32.54			
7/6/17	15:00	32.52			
7/6/17	16:00	32.50			
7/6/17	17:00	32.49			
7/6/17	18:00	32.48			
7/6/17	19:00	32.48			
7/6/17	20:00	32.53			
7/6/17	21:00	32.51	-		
7/6/17	22:00	32.51			
7/6/17	23:00	32.52			
7/7/17	0:00	32.52			
7/7/17	1:00	32.49			
7/7/17	2:00	32.47			
7/7/17	3:00	32.45			
7/7/17	4:00	32.43			
7/7/17	5:00	32.41			
7/7/17	6:00	32.41			
7/7/17	7:00	32.41			
7/7/17	8:00	32.42			
7/7/17	9:00	32.42			
7/7/17	10:00	32.41			
7/7/17	11:00	32.41			
7/7/17	12:00	32.41			
7/7/17	13:00	32.40			
L-					

Date	Time	Depth to Water (ft btoc)	Elapsed Time/Recovery (minutes)	Drawdown (feet)	Comments
7/7/17	14:00	32.38			
7/7/17	15:00	32.34			
7/7/17	16:00	32.32			
7/7/17	17:00	32.31			
7/7/17	18:00	32.30			
7/7/17	19:00	32.30			
7/7/17	20:00	32.33	1		
7/7/17	21:00	32.38	-		
7/7/17	22:00	32.35			
7/7/17	23:00	32.37			
7/8/17	0:00	32.35			
7/8/17	1:00	32.35	<u></u>		
7/8/17	2:00	32.32			
7/8/17	3:00	32.31			
7/8/17	4:00	32.28			
7/8/17	5:00	32.28			
7/8/17	6:00	32.30			
7/8/17	7:00	32.28			
7/8/17	8:00	32.29			
7/8/17	9:00	32.31			
7/8/17	10:00	32.32			
7/8/17	11:00	32.34			
7/8/17	12:00	32.34			
7/8/17	13:00	32.36			
7/8/17 7/8/17	14:00	32.37			
7/8/17	15:00 16:00	32.35 32.35			
7/8/17	17:00	32.38			
7/8/17	18:00	32.37			
7/8/17	19:00	32.36			
7/8/17	20:00	32.45			
7/8/17	21:00	32.42			
7/8/17	22:00	32.46			
7/8/17	23:00	32.47			
7/9/17	0:00	32.48			
7/9/17	1:00	32.49			
7/9/17	2:00	32.48			
7/9/17	3:00	32.47			
7/9/17	4:00	32.47			
7/9/17	5:00	32.46			
7/9/17	6:00	32.45	-		
7/9/17	7:00	32.49	-		
7/9/17	8:00	32.51	-		
7/9/17	9:00	32.54	==		
7/9/17	10:00	32.57			
7/9/17	11:00	32.60			
7/9/17	12:00	32.62			
7/9/17	13:00	32.62			
7/9/17	14:00	32.61			
7/9/17	15:00	32.62			
7/9/17	16:00	32.61			
7/9/17	17:00	32.59			
7/9/17	18:00	32.57			
7/9/17	19:00	32.58			
7/9/17	20:00	32.59			

Date	Time	Depth to Water (ft btoc)	Elapsed Time/Recovery (minutes)	Drawdown (feet)	Comments
7/9/17	21:00	32.62			
7/9/17	22:00	32.63			
7/9/17	23:00	32.66			
7/10/17	0:00	32.66	1		
7/10/17	1:00	32.66	1		
7/10/17	2:00	32.66			
7/10/17	3:00	32.64			
7/10/17 7/10/17	4:00	32.62			
7/10/17	5:00 6:00	32.61			
7/10/17	7:00	32.59 32.59	 		
7/10/17	8:00	32.60			
7/10/17	9:00	32.63	 		
7/10/17	10:00	32.65			
7/10/17	11:00	32.65			
					Static water level used from prior to the start of
7/10/17	11:54	32.66			pumping in any onsite wells.
7/10/17	12:00	32.66			Pump in well C-21 started at 11:55.
7/10/17	13:00	32.67			Pump in well C-23 started at 12:59.
7/10/17	14:00	32.65			
7/10/17	15:00	32.64			
7/10/17	16:00	32.60			
7/10/17	17:00	32.59			Pump in well C-14 started at 16:24.
7/10/17	18:00	32.58			Pump in well C-16 started at 17:31.
7/10/17	19:00	32.58			Pump in well C-6 started at 18:35.
7/10/17	20:00	32.56			Pump in well C-12 started at 19:48.
7/10/17	20:40	32.57			•
7/10/17	21:00	32.88			Reset test on pressure transducer.
7/10/17	21:03	32.92	1		Pump in well C-7B started.
7/10/17	21:04	39.18	1	6.52	Pump rate in well C-7B adjusted to 220 gpm.
7/10/17	21:05	43.10	2	10.44	
7/10/17	21:06	43.67	3	11.01	
7/10/17	21:07	42.84	4	10.18	
7/10/17	21:08	41.17	5	8.51	
7/10/17	21:09	42.62	6	9.96	
7/10/17	21:10	43.05	7	10.39	Pumping rate in well C-7B 220 gpm.
7/10/17	21:11	43.20	8	10.54	
7/10/17	21:12	43.54	9	10.88	
7/10/17	21:13	43.89	10	11.23	
7/10/17	21:14	44.11	11	11.45	
7/10/17	21:15	44.36	12	11.70	Pumping rate in well C-7B 220 gpm.
7/10/17	21:16	44.59	13	11.93	
7/10/17	21:17	44.98	14	12.32	
7/10/17	21:18	45.05	15	12.39	
7/10/17	21:19	45.28	16	12.62	Downsia a metalia assella C ZD 220
7/10/17	21:20	45.44	17	12.78	Pumping rate in well C-7B 220 gpm.
7/10/17 7/10/17	21:25	46.35 47.30	22 27	13.69	Pumping rate in well C-7B 220 gpm.
7/10/17	21:30	47.30 47.78	32	14.64 15.12	rumping rate in wen C-7B 220 gpm.
7/10/17	21:35 21:40	48.69	37	15.12	Pumping rate in well C-7B 220 gpm.
7/10/17	21:40	49.04	42	16.03	rumping rate in well C-7B 220 gpm.
7/10/17	21:43	49.41	42	16.75	Pumping rate in well C-7B 220 gpm.
7/10/17	21:55	49.41	52	17.32	1 umping rate in well C-7B 220 gpill.
7/10/17	22:00	50.40	57	17.74	Pumping rate in well C-7B 220 gpm.
7/10/17	23:00	54.11	117	21.45	Pumping rate in well C-7B 220 gpm.

Date	Time	Depth to Water (ft btoc)	Elapsed Time/Recovery (minutes)	Drawdown (feet)	Comments
7/11/17	0:00	56.72	177	24.06	Pumping rate in well C-7B 220 gpm.
7/11/17	1:00	58.52	237	25.86	Pumping rate in well C-7B 220 gpm.
7/11/17	2:00	60.10	297	27.44	Pumping rate in well C-7B 220 gpm.
7/11/17	3:00	61.42	357	28.76	Pumping rate in well C-7B 220 gpm.
7/11/17	4:00	62.60	417	29.94	Pumping rate in well C-7B 220 gpm.
7/11/17	5:00	63.68	477	31.02	Pumping rate in well C-7B 220 gpm.
7/11/17	6:00	64.82	537	32.16	Pumping rate in well C-7B 220 gpm.
7/11/17	7:00	65.65	597	32.99	Pumping rate in well C-7B 218 gpm.
7/11/17	8:00	66.67	657	34.01	Pumping rate in well C-7B 218 gpm.
7/11/17	9:00	67.23	717	34.57	Pumping rate in well C-7B 218 gpm.
7/11/17	10:00	68.19	777	35.53	Pumping rate in well C-7B 218 gpm.
7/11/17	11:00	68.79	837	36.13	Pumping rate in well C-7B 218 gpm.
7/11/17	12:00	69.51	897	36.85	Pumping rate in well C-7B 218 gpm.
7/11/17	13:00	70.09	957	37.43	Pumping rate in well C-7B 218 gpm.
7/11/17	14:00	70.66	1,017	38.00	Pumping rate in well C-7B 218 gpm.
7/11/17	15:00	71.29	1,077	38.63	Pumping rate in well C-7B 215 gpm.
7/11/17	16:00	71.78	1,137	39.12	Pumping rate in well C-7B 215 gpm.
7/11/17	17:00	72.27	1,197	39.61	Pumping rate in well C-7B 215 gpm.
7/11/17	18:00	72.64	1,257	39.98	Pumping rate in well C-7B 215 gpm.
7/11/17	19:00	73.26	1,317	40.60	Pumping rate in well C-7B 215 gpm.
7/11/17	20:00	73.74	1,377	41.08	Pumping rate in well C-7B 215 gpm.
7/11/17	21:00	74.16	1,437	41.50	Pumping rate in well C-7B 215 gpm.
7/11/17	22:00	74.68	1,497	42.02	Pumping rate in well C-7B 215 gpm.
7/11/17	23:00	74.76	1,557	42.10	Pumping rate in well C-7B 215 gpm.
7/12/17	0:00	75.39	1,617	42.73	Pumping rate in well C-7B 215 gpm.
7/12/17	1:00	71.97	1,677	39.31	Generator shut down.
7/12/17	1:17	67.12	1,694	34.46	Generator restarted.
7/12/17	2:00	74.07	1,737	41.41	Pumping rate in well C-7B 215 gpm.
7/12/17	3:00	75.28	1,797	42.62	Pumping rate in well C-7B 215 gpm.
7/12/17	4:00	75.89	1,857	43.23	Pumping rate in well C-7B 215 gpm.
7/12/17	5:00	76.30	1,917	43.64	Pumping rate in well C-7B 215 gpm.
7/12/17	6:00	76.76	1,977	44.10	Pumping rate in well C-7B 215 gpm.
7/12/17	7:00	77.00	2,037	44.34	Pumping rate in well C-7B 215 gpm.
7/12/17	8:00	77.38	2,097	44.72	Pumping rate in well C-7B 215 gpm.
7/12/17	9:00	77.67	2,157	45.01	Pumping rate in well C-7B 215 gpm.
7/12/17	10:00	77.88	2,217	45.22	Pumping rate in well C-7B 215 gpm.
7/12/17	10:03	77.94	2,220	45.28	Pumping rate in well C-7B 215 gpm.
7/12/17	10:04	74.52	2,221	41.86	Generator shut down.
7/12/17	10:27	67.85	2,244	35.19	Generator restarted.
7/12/17	11:00	75.55	2,277	42.89	Pumping rate in well C-7B 215 gpm.
7/12/17	11:27	76.37	2,304	43.71	Pumping rate in well C-7B 215 gpm.
7/12/17	11:28	71.17	-1	38.51	Pump in well C-7B shut down. End of test on well C-7B.
7/12/17	11:29	69.96	-2	37.30	
7/12/17	11:30	69.17	-3	36.51	
7/12/17	11:31	68.55	-4	35.89	
7/12/17	11:32	68.00	-5	35.34	
7/12/17	11:33	67.55	-6	34.89	
7/12/17	11:34	67.14	-7	34.48	
7/12/17	11:35	66.78	-8	34.12	
7/12/17	11:36	66.44	-9	33.78	
7/12/17	11:37	66.13	-10	33.47	
7/12/17	11:38	65.85	-11	33.19	
7/12/17	11:39	65.57	-12	32.91	
//14/1/	11:40	65.32	-12	32.66	

Date	Time	Depth to Water (ft btoc)	Elapsed Time/Recovery (minutes)	Drawdown (feet)	Comments
7/12/17	11:41	65.09	-14	32.43	
7/12/17	11:42	64.85	-15	32.19	
7/12/17	11:43	64.65	-16	31.99	
7/12/17	11:44	64.43	-17	31.77	
7/12/17	11:45	64.24	-18	31.58	
7/12/17	11:50	63.35	-23	30.69	
7/12/17	11:55	62.56	-28	29.90	
7/12/17	12:00	61.86	-33	29.20	Shut down pump in well C-21 at 11:56.
7/12/17	12:05	61.22	-38	28.56	
7/12/17	12:10	60.65	-43	27.99	
7/12/17	12:15	60.12	-48	27.46	
7/12/17	12:20	59.64	-53	26.98	
7/12/17	12:25	59.15	-58	26.49	
7/12/17	12:30	58.71	-63	26.05	
7/12/17	13:00	56.51	-93	23.85	
7/12/17	14:00	53.79	-153	21.13	
7/12/17	15:00	51.92	-213	19.26	
7/12/17	16:00	50.51	-273	17.85	
7/12/17	17:00	49.36	-333	16.70	
7/12/17	18:00	48.44	-393	15.78	
7/12/17	19:00	47.62	-453	14.96	
7/12/17	20:00	46.90	-513	14.24	
7/12/17	21:00	46.27	-573	13.61	
7/12/17	22:00	45.77	-633	13.11	
7/12/17	23:00	45.25	-693 753	12.59	
7/13/17	0:00	44.82	-753	12.16	
7/13/17	1:00	44.38	-813	11.72	
7/13/17	2:00	44.02	-873	11.36	
7/13/17	3:00	43.66	-933 -993	11.00	
7/13/17 7/13/17	4:00 5:00	43.29 42.99	-1,053	10.63 10.33	
7/13/17	6:00	42.69	-1,033	10.03	
7/13/17	7:00	42.40	-1,173	9.74	
7/13/17	8:00	42.14	-1,173	9.48	
7/13/17	9:00	41.91	-1,293	9.25	
7/13/17	10:00	41.73	-1,253	9.23	
7/13/17	11:00	41.73	-1,413	8.88	
7/13/17	12:00	41.35	-1,473	8.69	
7/13/17	13:00	41.18	-1,533	8.52	
7/13/17	14:00	41.01	-1,593	8.35	
7/13/17	15:00	40.83	-1,653	8.17	
7/13/17	16:00	40.67	-1,713	8.01	
7/13/17	17:00	40.50	-1,773	7.84	
7/13/17	18:00	40.37	-1,833	7.71	
7/13/17	19:00	40.23	-1,893	7.57	
7/13/17	20:00	40.09	-1,953	7.43	
7/13/17	21:00	39.96	-2,013	7.30	
7/13/17	22:00	39.85	-2,073	7.19	
7/13/17	23:00	39.74	-2,133	7.08	
7/14/17	0:00	39.64	-2,193	6.98	
7/14/17	1:00	39.53	-2,253	6.87	
7/14/17	2:00	39.44	-2,313	6.78	
7/14/17	3:00	39.34	-2,373	6.68	
7/14/17	4:00	39.25	-2,433	6.59	
7/14/17	5:00	39.15	-2,493	6.49	

Date	Time	Depth to Water (ft btoc)	Elapsed Time/Recovery (minutes)	Drawdown (feet)	Comments
7/14/17	6:00	39.08	-2,553	6.42	
7/14/17	7:00	38.95	-2,613	6.29	
7/14/17	8:00	38.84	-2,673	6.18	
7/14/17	9:00	38.82	-2,733	6.16	
7/14/17	10:00	38.71	-2,793	6.05	
7/14/17	11:00	38.59	-2,853	5.93	
7/14/17	12:00	38.58	-2,913	5.92	
7/14/17	13:00	38.50	-2,973	5.84	
7/14/17	14:00	38.42	-3,033	5.76	
7/14/17	15:00	38.35	-3,093	5.69	
7/14/17	16:00	38.27	-3,153	5.61	
7/14/17	17:00	38.20	-3,213	5.54	
7/14/17	18:00	38.12	-3,273	5.46	
7/14/17	19:00	38.03	-3,273	5.37	
7/14/17	20:00	37.97	-3,393	5.31	
7/14/17	21:00	37.89	-3,453	5.23	
7/14/17	22:00	37.85	-3,433	5.19	
		37.77	-3,513	5.19	
7/14/17 7/15/17	23:00	37.70	-3,573 -3,633	5.04	
7/15/17	0:00 1:00	37.67	-3,633 -3,693	5.04	
7/15/17	2:00	37.59	-3,693 -3,753	4.93	
7/15/17		37.54		4.88	
	3:00		-3,813		
7/15/17 7/15/17	4:00 5:00	37.48 37.42	-3,873 -3,933	4.82 4.76	
7/15/17	6:00	37.35	-3,993	4.69	
7/15/17	7:00	37.30	-4,053 -4,113	4.64	
7/15/17	8:00	37.24		4.58	000/
7/15/17	9:00	37.19	-4,173	4.53	90% recovery achieved.
7/15/17	10:00	37.12	-4,233	4.46	
7/15/17	11:00	37.08	-4,293 4,252	4.42	
7/15/17	12:00	37.05	-4,353	4.39	
7/15/17	13:00	37.02	-4,413	4.36	
7/15/17	14:00	36.98	-4,473 4,522	4.32	
7/15/17	15:00	36.95	-4,533	4.29	
7/15/17	16:00	36.90	-4,593	4.24	
7/15/17	17:00	36.87	-4,653	4.21	
7/15/17	18:00	36.83	-4,713	4.17	
7/15/17	19:00	36.78	-4,773	4.12	
7/15/17	20:00	36.74	-4,833	4.08	
7/15/17	21:00	36.72	-4,893 4,052	4.06	
	22:00	36.67	-4,953 5,013	4.01	
7/15/17	23:00	36.63	-5,013	3.97	
7/16/17	0:00	36.62	-5,073	3.96	
7/16/17	1:00	36.59	-5,133	3.93	
7/16/17	1:09	36.56	-5,142	3.90	Shut down of simultaneous pumping test (wells C-6, 12, 14, 16, and 23).
7/16/17	2:00	36.54	-5,193	3.88	
7/16/17	3:00	36.50	-5,253	3.84	
7/16/17	4:00	36.45	-5,313	3.79	
7/16/17	5:00	36.42	-5,373	3.76	
7/16/17	6:00	36.37	-5,433	3.71	
7/16/17	7:00	36.34	-5,493	3.68	
7/16/17	8:00	36.30	-5,553	3.64	
7/16/17	9:00	36.26	-5,613	3.60	
7/16/17	10:00	36.24	-5,673	3.58	

Date	Time	Depth to Water (ft btoc)	Elapsed Time/Recovery (minutes)	Drawdown (feet)	Comments
7/16/17	11:00	36.20	-5,733	3.54	
7/16/17	12:00	36.17	-5,793	3.51	
7/16/17	13:00	36.18	-5,853	3.52	
7/16/17	14:00	36.16	-5,913	3.50	
7/16/17	15:00	36.15	-5,973	3.49	
7/16/17	16:00	36.10	-6,033	3.44	
7/16/17	17:00	36.06	-6,093	3.40	
7/16/17	18:00	36.05	-6,153	3.39	
7/16/17	19:00	36.03	-6,213	3.37	
7/16/17	20:00	36.03	-6,273	3.37	
7/16/17	21:00	36.05	-6,333	3.39	
7/16/17	22:00	35.99	-6,393	3.33	
7/16/17	23:00	35.97	-6,453	3.31	
7/17/17	0:00	35.99	-6,513	3.33	
7/17/17	1:00	35.97	-6,573	3.31	
7/17/17	2:00	35.95	-6,633	3.29	
7/17/17	3:00	35.89	-6,693	3.23	
7/17/17	4:00	35.88	-6,753	3.22	
7/17/17	5:00	35.89	-6,813	3.23	
7/17/17	6:00	35.85	-6,873	3.19	
7/17/17	7:00	35.82	-6,933	3.16	
7/17/17	8:00	35.82	-6,993	3.16	
7/17/17	9:00	35.84	-7,053	3.18	
7/17/17	10:00	35.77	-7,113 7,173	3.11	
7/17/17	11:00 12:00	35.73 35.76	-7,173 -7,233	3.07 3.10	
7/17/17	13:00	35.73	-7,293 -7,293	3.07	
7/17/17	14:00	35.70	-7,353	3.04	
7/17/17	15:00	35.68	-7,413	3.02	
7/17/17	16:00	35.68	-7,473	3.02	
7/17/17	17:00	35.66	-7,533	3.00	
7/17/17	18:00	35.66	-7,593	3.00	
7/17/17	19:00	35.64	-7,653	2.98	
7/17/17	20:00	35.67	-7,713	3.01	
7/17/17	21:00	35.62	-7,773	2.96	
7/17/17	22:00	35.60	-7,833	2.94	
7/17/17	23:00	35.60	-7,893	2.94	
7/18/17	0:00	35.57	-7,953	2.91	
7/18/17	1:00	35.55	-8,013	2.89	
7/18/17	2:00	35.54	-8,073	2.88	
7/18/17	3:00	35.53	-8,133	2.87	
7/18/17	4:00	35.53	-8,193	2.87	
7/18/17	5:00	35.51	-8,253	2.85	
7/18/17	6:00	35.51	-8,313	2.85	
7/18/17	7:00	35.50	-8,373	2.84	
7/18/17	8:00 9:00	35.50 35.51	-8,433 8,403	2.84 2.85	
7/18/17	10:00	35.48	-8,493 -8,553	2.83	
7/18/17	11:00	35.45	-8,613	2.79	
7/18/17	12:00	35.41	-8,673	2.75	
7/18/17	13:00	35.37	-8,733	2.73	
7/18/17	14:00	35.34	-8,793	2.68	
7/18/17	15:00	35.32	-8,853	2.66	
7/18/17	16:00	35.30	-8,913	2.64	
7/18/17	17:00	35.29	-8,973	2.63	
			,		

Date	Time	Depth to Water (ft btoc)	Elapsed Time/Recovery (minutes)	Drawdown (feet)	Comments
7/18/17	18:00	35.28	-9,033	2.62	
7/18/17	19:00	35.29	-9,093	2.63	
7/18/17	20:00	35.28	-9,153	2.62	
7/18/17	21:00	35.27	-9,213	2.61	
7/18/17	22:00	35.27	-9,273	2.61	
7/18/17	23:00	35.26	-9,333	2.60	
7/19/17	0:00	35.23	-9,393	2.57	
7/19/17	1:00	35.22	-9,453	2.56	
7/19/17	2:00	35.20	-9,513	2.54	
7/19/17	3:00	35.19	-9,573	2.53	
7/19/17	4:00	35.17	-9,633	2.51	
7/19/17	5:00	35.18	-9,693	2.52	
7/19/17	6:00	35.16	-9,753	2.50	
7/19/17	7:00	35.17	-9,813	2.51	
7/19/17	8:00	35.18	-9,873	2.52	
7/19/17	9:00	35.19	-9,933	2.53	
7/19/17	10:00	35.16	-9,993	2.50	
7/19/17	11:00	35.18	-10,053	2.52	
7/19/17	12:00	35.11	-10,113	2.45	
7/19/17	13:00	35.10	-10,173	2.44	
7/19/17	14:00	35.06	-10,233	2.40	
7/19/17	15:00	35.04	-10,293	2.38	
7/19/17	16:00	35.01	-10,353	2.35	
7/19/17	17:00	34.99	-10,413	2.33	
7/19/17	18:00	34.99	-10,473	2.33	
7/19/17	19:00	34.94	-10,533	2.28	
7/19/17	20:00	35.01	-10,593	2.35	
7/19/17	21:00	35.01	-10,653	2.35	
7/19/17	22:00	35.02	-10,713	2.36	
7/19/17	23:00	35.01	-10,773	2.35	
7/20/17	0:00	34.99	-10,833	2.33	
7/20/17	1:00	34.98	-10,893	2.32	
7/20/17	2:00	34.96	-10,953	2.30	
7/20/17	3:00	34.94	-11,013	2.28	
7/20/17	4:00	34.93	-11,073	2.27	
7/20/17	5:00	34.91	-11,133	2.25	
7/20/17	6:00	34.93	-11,193	2.27	
7/20/17	7:00	34.96	-11,253	2.30	
7/20/17	8:00	34.97	-11,313	2.31	
7/20/17	9:00	34.97	-11,373	2.31	
7/20/17	10:00	34.98	-11,433	2.32	
7/20/17	11:00	34.95	-11,493	2.32	
7/20/17	12:00	34.94	-11,493	2.29	
7/20/17	13:00	34.90	-11,613	2.24	
7/20/17	14:00	34.86	-11,613	2.24	
7/20/17	15:00	34.83	-11,733	2.20	
7/20/17	16:00	34.81	-11,793	2.17	
7/20/17	17:00	34.79	-11,793	2.13	
7/20/17	18:00	34.79	-11,853 -11,913	2.13	
7/20/17	19:00	34.79	-11,913	2.13	
7/20/17	20:00	34.79	-12,033	2.13	
7/20/17	21:00	34.81	-12,093	2.15	
7/20/17	22:00	34.81	-12,153	2.15	
7/20/17	23:00	34.81	-12,213	2.15	
7/21/17	0:00	34.80	-12,273	2.14	

Date	Time	Depth to Water (ft btoc)	Elapsed Time/Recovery (minutes)	Drawdown (feet)	Comments
7/21/17	1:00	34.79	-12,333	2.13	
7/21/17	2:00	34.75	-12,393	2.09	
7/21/17	3:00	34.74	-12,453	2.08	
7/21/17	4:00	34.73	-12,513	2.07	
7/21/17	5:00	34.72	-12,573	2.06	
7/21/17	6:00	34.73	-12,633	2.07	
7/21/17	7:00	34.73	-12,693	2.07	
7/21/17	8:00	34.77	-12,753	2.11	
7/21/17	9:00	34.78	-12,813	2.12	
7/21/17	10:00	34.77	-12,873	2.11	
7/21/17	11:00	34.77	-12,933	2.11	
7/21/17	12:00	34.76	-12,993	2.10	
7/21/17	13:00	34.72	-13,053	2.06	
7/21/17	14:00	34.69	-13,113	2.03	
7/21/17	15:00	34.67	-13,173	2.01	
7/21/17	16:00	34.64	-13,233	1.98	
7/21/17	17:00	34.62	-13,293	1.96	
7/21/17	18:00	34.61	-13,353	1.95	
7/21/17	19:00	34.62	-13,413	1.96	
7/21/17	20:00	34.62	-13,473	1.96	
7/21/17	21:00	34.64	-13,533	1.98	
7/21/17	22:00	34.66	-13,593	2.00	
7/21/17	23:00	34.66	-13,653	2.00	
7/22/17	0:00	34.65	-13,713	1.99	
7/22/17	1:00	34.62	-13,773	1.96	
7/22/17	2:00	34.63	-13,833	1.97	
7/22/17	3:00	34.61	-13,893	1.95	
7/22/17	4:00	34.58	-13,953	1.92	
7/22/17	5:00	34.55	-14,013	1.89	
7/22/17	6:00	34.56	-14,073	1.90	
7/22/17	7:00	34.56	-14,133	1.90	
7/22/17	8:00	34.57	-14,193	1.91	
7/22/17	9:00	34.60	-14,253	1.94	
7/22/17	10:00	34.62	-14,313	1.96	
7/22/17	11:00	34.63	-14,373	1.97	
7/22/17	12:00	34.65	-14,433	1.99	
7/22/17	13:00	34.64	-14,493	1.98	
7/22/17	14:00	34.62	-14,553	1.96	
7/22/17	15:00	34.58	-14,613	1.92	
7/22/17	16:00	34.55	-14,673	1.89	
7/22/17	17:00	34.53	-14,733	1.87	
7/22/17	18:00	34.51	-14,793	1.85	
7/22/17	19:00	34.51	-14,853	1.85	
7/22/17	20:00	34.50	-14,913	1.84	
7/22/17	21:00	34.51	-14,973	1.85	
7/22/17	22:00	34.53	-15,033	1.87	
7/22/17	23:00	34.52	-15,093	1.86	
7/23/17	0:00	34.51	-15,153	1.85	
7/23/17	1:00	34.51	-15,213	1.85	
7/23/17	2:00	34.48	-15,273	1.82	
7/23/17	3:00	34.45	-15,333	1.79	
7/23/17	4:00	34.42	-15,393	1.76	
7/23/17	5:00	34.42	-15,453	1.76	
7/23/17	6:00	34.43	-15,513	1.77	
7/23/17	7:00	34.41	-15,573	1.75	

7/23/17 8:00 34.44 -15,633 1.78 7/23/17 9:00 34.46 -15,693 1.80 7/23/17 10:00 34.49 -15,753 1.83 7/23/17 11:00 34.52 -15,813 1.86 7/23/17 12:00 34.52 -15,873 1.86 7/23/17 13:00 34.54 -15,933 1.88 7/23/17 14:00 34.55 -15,993 1.89 7/23/17 15:00 34.53 -16,053 1.87 7/23/17 15:00 34.53 -16,113 1.87 7/23/17 17:00 34.53 -16,113 1.87 7/23/17 18:00 34.51 -16,233 1.86 7/23/17 19:00 34.50 -16,293 1.84 7/23/17 20:00 34.52 -16,353 1.86 7/23/17 21:00 34.55 -16,413 1.87 7/23/17 21:00 34.55 -16,413 1.87	
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7/24/17 4:00 34.48 -16,833 1.82 7/24/17 5:00 34.46 -16,893 1.80 7/24/17 6:00 34.44 -16,953 1.78 7/24/17 7:00 34.44 -17,013 1.78 7/24/17 8:00 34.45 -17,073 1.79 7/24/17 9:00 34.48 -17,133 1.82 7/24/17 10:00 34.48 -17,193 1.82	
7/24/17 5:00 34.46 -16,893 1.80 7/24/17 6:00 34.44 -16,953 1.78 7/24/17 7:00 34.44 -17,013 1.78 7/24/17 8:00 34.45 -17,073 1.79 7/24/17 9:00 34.48 -17,133 1.82 7/24/17 10:00 34.48 -17,193 1.82	
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7/24/17 8:00 34.45 -17,073 1.79 7/24/17 9:00 34.48 -17,133 1.82 7/24/17 10:00 34.48 -17,193 1.82	
7/24/17 9:00 34.48 -17,133 1.82 7/24/17 10:00 34.48 -17,193 1.82	
7/24/17 10:00 34.48 -17,193 1.82	
7/24/17 11:00 34.49 -17,253 1.83	
7/24/17 12:00 34.53 -17,313 1.87	
7/24/17 13:00 34.52 -17,373 1.86	
7/24/17 14:00 34.51 -17,433 1.85	
7/24/17 15:00 34.49 -17,493 1.83	
7/24/17 16:00 34.47 -17,553 1.81	
7/24/17 17:00 34.44 -17,613 1.78	
7/24/17 18:00 34.45 -17,673 1.79	
7/24/17 19:00 34.42 -17,733 1.76	
7/24/17 20:00 34.43 -17,793 1.77	
7/24/17 21:00 34.45 -17,853 1.79	
7/24/17 22:00 34.47 -17,913 1.81	
7/24/17 23:00 34.50 -17,973 1.84	
7/25/17 0:00 34.53 -18,033 1.87	
7/25/17 1:00 34.53 -18,093 1.87	
7/25/17 2:00 34.52 -18,153 1.86	
7/25/17 3:00 34.50 -18,213 1.84	
7/25/17 4:00 34.48 -18,273 1.82	
7/25/17 5:00 34.47 -18,333 1.81	
7/25/17 6:00 34.47 -18,393 1.81	
7/25/17 7:00 34.47 -18,453 1.81	
7/25/17 8:00 34.47 -18,513 1.81	
7/25/17 9:00 34.50 -18,573 1.84 7/25/17 10:00 34.51 -18,633 1.85	
7/25/17 10:00 34.51 -18,633 1.85 7/25/17 11:00 34.52 -18,693 1.86	
	p in well C-21 started at 11:44.
7/25/17 12:00 34:36 -18,733 1:90 Pump 7/25/17 13:00 34:57 -18,813 1:91	p iii weii C-21 statteu at 11.44.
7/25/17 14:00 34.58 -18,873 1.92	

Date	Time	Depth to Water (ft btoc)	Elapsed Time/Recovery (minutes)	Drawdown (feet)	Comments
7/25/17	15:00	34.55	-18,933	1.89	
7/25/17	16:00	34.55	-18,993	1.89	
7/25/17	17:00	34.53	-19,053	1.87	
7/25/17	18:00	34.53	-19,113	1.87	
7/25/17	19:00	34.51	-19,173	1.85	
7/25/17	20:00	34.53	-19,233	1.87	
7/25/17	21:00	34.53	-19,293	1.87	
7/25/17	22:00	34.55	-19,353	1.89	
7/25/17	23:00	34.58	-19,413	1.92	
7/26/17	0:00	34.58	-19,473	1.92	
7/26/17	1:00	34.59	-19,533	1.93	
7/26/17	2:00	34.59	-19,593	1.93	
7/26/17	3:00	34.57	-19,653	1.91	
7/26/17	4:00	34.54	-19,713	1.88	
7/26/17	5:00	34.52	-19,773	1.86	
7/26/17	6:00	34.52	-19,833	1.86	
7/26/17	7:00	34.50	-19,893	1.84	
7/26/17	8:00	34.50	-19,953	1.84	
7/26/17	9:00	34.49	-20,013	1.83	
7/26/17	10:00	34.51	-20,073	1.85	
7/26/17	11:00	34.51	-20,133	1.85	
7/26/17	12:00	34.51	-20,193	1.85	
7/26/17	13:00	34.51	-20,253	1.85	
7/26/17	14:00	34.52	-20,313	1.86	
7/26/17	15:00	34.50	-20,373	1.84	
7/26/17	16:00	34.49	-20,433	1.83	
7/26/17	17:00	34.47	-20,493	1.81	
7/26/17	18:00	34.44	-20,553	1.78	
7/26/17	19:00	34.43	-20,613	1.77	
7/26/17 7/26/17	20:00	34.41	-20,673	1.75	
7/26/17	21:00 22:00	34.41 34.43	-20,733 -20,793	1.75 1.77	
7/26/17	23:00	34.43	-20,793	1.77	
7/27/17	0:00	34.43	-20,833	1.77	
7/27/17	1:00	34.43	-20,913	1.77	
7/27/17	2:00	34.42	-21,033	1.76	
7/27/17	3:00	34.40	-21,093	1.74	
7/27/17	4:00	34.38	-21,153	1.72	
7/27/17	5:00	34.37	-21,213	1.71	
7/27/17	6:00	34.35	-21,273	1.69	
7/27/17	7:00	34.31	-21,333	1.65	
7/27/17	8:00	34.33	-21,393	1.67	
7/27/17	9:00	34.33	-21,453	1.67	
7/27/17	10:00	34.32	-21,513	1.66	
7/27/17	11:00	34.35	-21,573	1.69	
7/27/17	12:00	34.34	-21,633	1.68	
7/27/17	13:00	34.34	-21,693	1.68	
7/27/17	14:00	34.32	-21,753	1.66	
7/27/17	15:00	34.33	-21,813	1.67	
7/27/17	16:00	34.31	-21,873	1.65	
7/27/17	17:00	34.31	-21,933	1.65	
7/27/17	18:00	34.27	-21,993	1.61	
7/27/17	19:00	34.26	-22,053	1.60	
7/27/17	20:00	34.25	-22,113	1.59	
7/27/17	21:00	34.26	-22,173	1.60	

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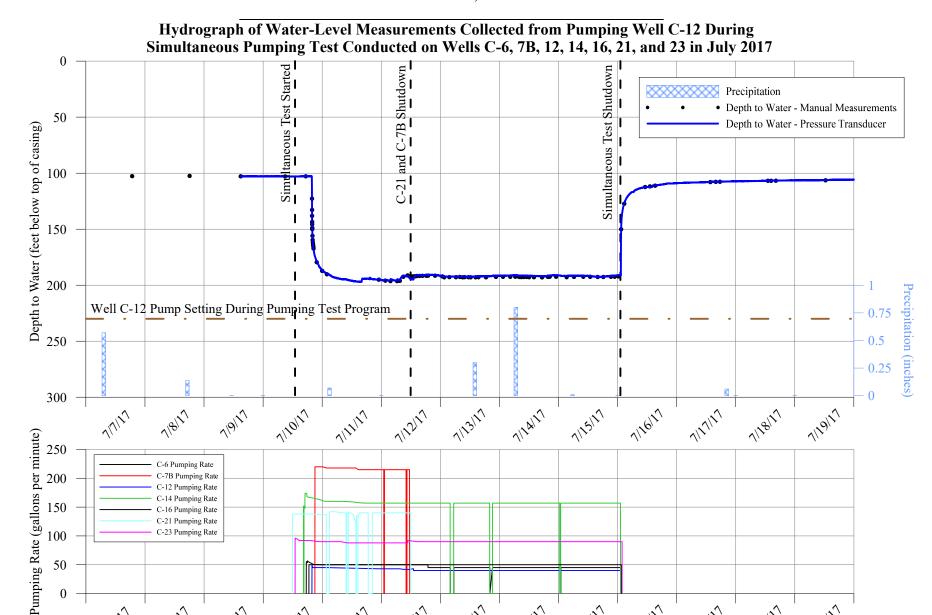
Date	Time	Depth to Water (ft btoc)	Elapsed Time/Recovery (minutes)	Drawdown (feet)	Comments
7/27/17	22:00	34.25	-22,233	1.59	
7/27/17	23:00	34.26	-22,293	1.60	
7/28/17	0:00	34.28	-22,353	1.62	
7/28/17	1:00	34.27	-22,413	1.61	
7/28/17	2:00	34.27	-22,473	1.61	
7/28/17	3:00	34.27	-22,533	1.61	
7/28/17	4:00	34.26	-22,593	1.60	
7/28/17	5:00	34.26	-22,653	1.60	
7/28/17	6:00	34.25	-22,713	1.59	
7/28/17	7:00	34.23	-22,773	1.57	
7/28/17	8:00	34.25	-22,833	1.59	
7/28/17	9:00	34.27	-22,893	1.61	
7/28/17	10:00	34.26	-22,953	1.60	
7/28/17	11:00	34.26	-23,013	1.60	
7/28/17	12:00	34.27	-23,073	1.61	Pump in well C-21 shut down at 12:15.
7/28/17	13:00	34.29	-23,133	1.63	•
7/28/17	14:00	34.28	-23,193	1.62	
7/28/17	15:00	34.28	-23,253	1.62	
7/28/17	16:00	34.30	-23,313	1.64	
7/28/17	17:00	34.28	-23,373	1.62	
7/28/17	18:00	34.29	-23,433	1.63	
7/28/17	19:00	34.30	-23,493	1.64	
7/28/17	20:00	34.31	-23,553	1.65	
7/28/17	21:00	34.32	-23,613	1.66	
7/28/17	22:00	34.31	-23,673	1.65	
7/28/17	23:00	34.31	-23,733	1.65	
7/29/17	0:00	34.32	-23,793	1.66	
7/29/17	1:00	34.32	-23,853	1.66	
7/29/17	2:00	34.33	-23,913	1.67	
7/29/17	3:00	34.32	-23,973	1.66	
7/29/17	4:00	34.32	-24,033	1.66	
7/29/17	5:00	34.31	-24,093	1.65	
7/29/17	6:00	34.28	-24,153	1.62	
7/29/17	7:00	34.28	-24,213	1.62	
7/29/17	8:00	34.28	-24,273	1.62	
7/29/17	9:00	34.25	-24,333	1.59	
7/29/17	10:00	34.26	-24,393	1.60	
7/29/17	11:00	34.25	-24,453	1.59	
7/29/17	12:00	34.26	-24,513	1.60	
7/29/17	13:00	34.27	-24,573	1.61	
7/29/17	14:00	34.31	-24,633	1.65	
7/29/17	15:00	34.31	-24,693	1.65	
7/29/17	16:00	34.32	-24,753	1.66	
7/29/17	17:00	34.33	-24,813	1.67	
7/29/17	18:00	34.34	-24,873	1.68	
7/29/17	19:00	34.34	-24,933	1.68	
7/29/17	20:00	34.34	-24,993	1.68	
7/29/17	21:00	34.35	-25,053	1.69	
7/29/17	22:00	34.34	-25,113	1.68	
7/29/17	23:00	34.35	-25,173	1.69	
7/30/17	0:00	34.35	-25,233	1.69	
7/30/17	1:00	34.36	-25,293	1.70	
7/30/17	2:00	34.36	-25,353	1.70	
7/30/17	3:00	34.38	-25,333	1.70	
			-25,413		
7/30/17	4:00	34.38	-23,473	1.72	

Summary of Water-Level Measurements from Pressure Transducer Installed in Well C-7B Collected During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Data	Time	Depth to Water	Elapsed Time/Recovery	Drawdown	Comments
Date	1 ime	(ft btoc)	(minutes)	(feet)	Comments
7/30/17	5:00	34.38	-25,533	1.72	
7/30/17	6:00	34.43	-25,593	1.77	
7/30/17	7:00	34.39	-25,653	1.73	
7/30/17	8:00	34.40	-25,713	1.74	
7/30/17	9:00	34.44	-25,773	1.78	
7/30/17	10:00	34.40	-25,833	1.74	
7/30/17	11:00	34.43	-25,893	1.77	
7/30/17	12:00	34.43	-25,953	1.77	
7/30/17	13:00	34.44	-26,013	1.78	
7/30/17	14:00	34.44	-26,073	1.78	
7/30/17	15:00	34.46	-26,133	1.80	
7/30/17	16:00	34.45	-26,193	1.79	
7/30/17	17:00	34.45	-26,253	1.79	
7/30/17	18:00	34.45	-26,313	1.79	
7/30/17	19:00	34.45	-26,373	1.79	
7/30/17	20:00	34.46	-26,433	1.80	
7/30/17	21:00	34.47	-26,493	1.81	
7/30/17	22:00	34.51	-26,553	1.85	
7/30/17	23:00	34.49	-26,613	1.83	
7/31/17	0:00	34.48	-26,673	1.82	
7/31/17	1:00	34.47	-26,733	1.81	
7/31/17	2:00	34.50	-26,793	1.84	
7/31/17	3:00	34.48	-26,853	1.82	
7/31/17	4:00	34.46	-26,913	1.80	
7/31/17	5:00	34.46	-26,973	1.80	
7/31/17	6:00	34.47	-27,033	1.81	
7/31/17	7:00	34.50	-27,093	1.84	
7/31/17	8:00	34.49	-27,153	1.83	
7/31/17	9:00	34.49	-27,213	1.83	
7/31/17	10:00	34.47	-27,273	1.81	
7/31/17	11:00	34.48	-27,333	1.82	
7/31/17	12:00	34.45	-27,393	1.79	
7/31/17	13:00	34.46	-27,453	1.80	

ft btoc feet below top of casing gpm gallons per minute

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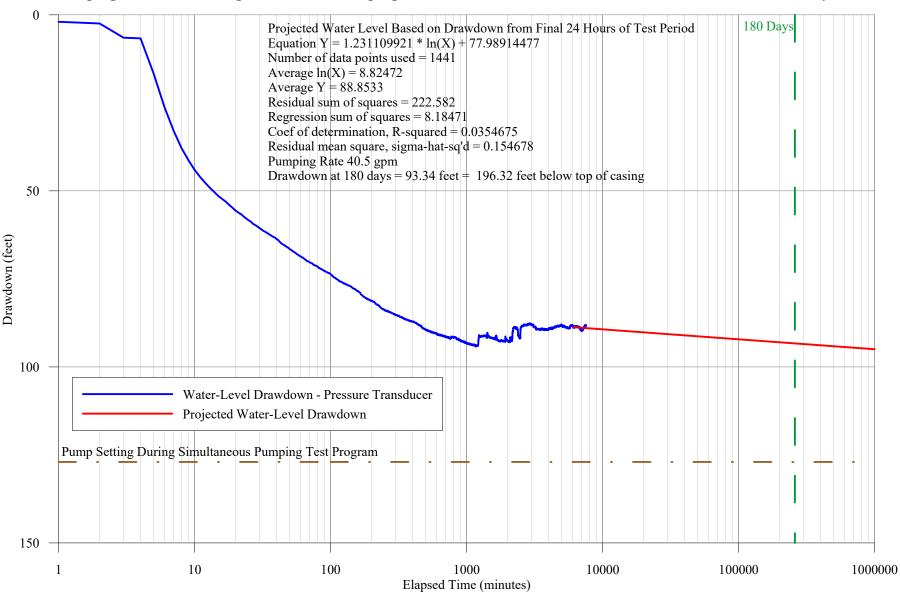


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7/10/17

180-Day Water-Level Drawdown Projection on Pumping Well C-12 from Water-Level Measurements Collected from Pumping Well C-12 During Simultanous Pumping Test Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Date	Time	Depth to Water (ft btoc)	Elapsed Time\ Recovery (minutes)	Drawdown (feet)	Comments
7/9/17	15:00	102.88			Pressure transducer installed in well.
7/9/17	16:00	102.87			
7/9/17	17:00	102.83			
7/9/17	18:00	102.82			
7/9/17	19:00	102.81			
7/9/17	20:00	102.75			
7/9/17	21:00	102.79	-		
7/9/17	22:00	102.79			
7/9/17	23:00	102.82			
7/10/17	0:00	102.92			
7/10/17	1:00	102.83			
7/10/17	2:00	102.86			
7/10/17	3:00	102.83			
7/10/17	4:00	102.80			
7/10/17	5:00	102.80			
7/10/17	6:00	102.76			
7/10/17	7:00	102.81			
7/10/17	8:00	102.85			
7/10/17	9:00	102.90			
7/10/17	10:00	102.93			
7/10/17	11:00	102.95			
7/10/17	11:54	102.98			Static water level used from prior to the start of pumping in any onsite wells.
7/10/17	12:00	102.98			Pump in well C-21 started at 11:55.
7/10/17	13:00	102.94			Pump in well C-23 started at 12:59.
7/10/17	14:00	102.91			
7/10/17	15:00	102.97			
7/10/17	16:00	102.83			D : 11 C 14 + + 1 + 1 C 24
7/10/17 7/10/17	17:00 18:00	102.81 102.77			Pump in well C-14 started at 16:24. Pump in well C-16 started at 17:31.
7/10/17	19:00	102.77			Pump in well C-10 started at 17:31. Pump in well C-6 started at 18:35.
7/10/17	19:47	102.77			rump in wen C-0 started at 18.55.
7/10/17	19:48	104.98	1	2.00	Pump in well C-12 started.
7/10/17	19:49	105.42	2	2.44	Pumping rate in well C-12 adjusted to 50 gpm.
7/10/17	19:50	109.51	3	6.53	1 uniping face in wen C-12 adjusted to 50 gpin.
7/10/17	19:51	109.67	4	6.69	
7/10/17	19:52	119.72	5	16.74	Pumping rate in well C-12 47 gpm.
7/10/17	19:53	129.21	6	26.23	
7/10/17	19:54	135.88	7	32.90	
7/10/17	19:55	140.81	8	37.83	
7/10/17	19:56	144.29	9	41.31	
7/10/17	19:57	147.07	10	44.09	
7/10/17	19:58	149.09	11	46.11	
7/10/17	19:59	150.78	12	47.80	
7/10/17	20:00	152.20	13	49.22	
7/10/17	20:01	153.40	14	50.42	
7/10/17	20:02	154.53	15	51.55	Pumping rate in well C-12 45 gpm.
7/10/17	20:03	155.32	16	52.34	
7/10/17	20:04	156.12	17	53.14	
7/10/17	20:05	157.03	18	54.05	
7/10/17	20:10	160.32	23	57.34	
7/10/17	20:15	162.73	28	59.75	Pumping rate in well C-12 45 gpm.
7/10/17	20:20	164.61	33	61.63	
7/10/17	20:25	166.09	38	63.11	Pumping rate in well C-12 45 gpm.

Date	Time	Depth to Water (ft btoc)	Elapsed Time\ Recovery (minutes)	Drawdown (feet)	Comments
7/10/17	20:30	167.77	43	64.79	
7/10/17	20:35	169.01	48	66.03	Pumping rate in well C-12 45 gpm.
7/10/17	20:40	170.23	53	67.25	
7/10/17	20:45	171.24	58	68.26	Pumping rate in well C-12 45 gpm.
7/10/17	20:50	172.08	63	69.10	
7/10/17	20:55	173.00	68	70.02	Pumping rate in well C-12 45 gpm.
7/10/17	21:00	173.59	73	70.61	Pump in well C-7B started at 21:03.
7/10/17	22:00	179.78	133	76.80	Pumping rate in well C-12 45 gpm.
7/10/17	23:00	183.95	193	80.97	Pumping rate in well C-12 45 gpm.
7/11/17	0:00	187.05	253	84.07	Pumping rate in well C-12 45 gpm.
7/11/17	1:00	188.53	313	85.55	Pumping rate in well C-12 45 gpm.
7/11/17	2:00	189.83	373	86.85	Pumping rate in well C-12 45 gpm.
7/11/17	3:00	190.75	433	87.77	Pumping rate in well C-12 45 gpm.
7/11/17	4:00	192.25	493	89.27	Pumping rate in well C-12 45 gpm.
7/11/17	5:00	192.98	553	90.00	Pumping rate in well C-12 45 gpm.
7/11/17	6:00	193.68	613	90.70	Pumping rate in well C-12 45 gpm.
7/11/17	7:00	194.13	673	91.15	Pumping rate in well C-12 45 gpm.
7/11/17	8:00	194.52	733	91.54	Pumping rate in well C-12 45 gpm.
7/11/17	9:00	194.54	793	91.56	Pumping rate in well C-12 45 gpm.
7/11/17	10:00	195.20	853	92.22	Pumping rate in well C-12 45 gpm.
7/11/17	11:00	195.63	913	92.65	Pumping rate in well C-12 45 gpm.
7/11/17	12:00	196.25	973	93.27	Pumping rate in well C-12 45 gpm.
7/11/17	13:00	196.43	1,033	93.45	Pumping rate in well C-12 45 gpm.
7/11/17	14:00	196.76	1,093	93.78	Pumping rate in well C-12 45 gpm.
7/11/17	15:00	196.99	1,153	94.01	Pumping rate in well C-12 45 gpm.
7/11/17	16:00	196.78	1,213	93.80	Pumping rate in well C-12 45 gpm.
7/11/17	17:00	194.26	1,273	91.28	Pumping rate in well C-12 45 gpm.
7/11/17	18:00	194.12	1,333	91.14	Pumping rate in well C-12 45 gpm.
7/11/17	19:00	194.34	1,393	91.36	Pumping rate in well C-12 45 gpm.
7/11/17	20:00	194.18	1,453	91.20	Pumping rate in well C-12 45 gpm.
7/11/17	21:00	194.71	1,513	91.73	Pumping rate in well C-12 45 gpm.
7/11/17	22:00	194.93	1,573	91.95	Pumping rate in well C-12 44 gpm.
7/11/17	23:00	194.52	1,633	91.54	Pumping rate in well C-12 43 gpm.
7/12/17	0:00	195.48	1,693	92.50	Pumping rate in well C-12 43 gpm.
7/12/17	1:00	195.63	1,753	92.65	Pumping rate in well C-12 43 gpm.
7/12/17	2:00	195.52	1,813	92.54	Pumping rate in well C-12 43 gpm.
7/12/17	3:00	195.72	1,873	92.74	Pumping rate in well C-12 43 gpm.
7/12/17	4:00	194.79	1,933	91.81	Pumping rate in well C-12 43 gpm.
7/12/17	5:00	195.53	1,993	92.55	Pumping rate in well C-12 43 gpm.
7/12/17	6:00	195.84	2,053	92.86	Pumping rate in well C-12 43 gpm.
7/12/17	7:00	195.25	2,113	92.27	Pumping rate in well C-12 43 gpm.
7/12/17	8:00	193.42	2,173	90.44	Pumping rate in well C-12 43 gpm.
7/12/17	9:00	191.84	2,233	88.86	Pumping rate in well C-12 42 gpm.
7/12/17	10:00	191.79	2,293	88.81	Pumping rate in well C-12 42 gpm.
7/12/17	11:00	192.31	2,353	89.33	Pumping rate in well C-12 42 gpm.
7/12/17	12:00	194.31	2,413	91.33	Pump in well C-7B shut down at 11:28 and pump in well C-21 shut down at 11:56.
7/12/17	13:00	194.86	2,473	91.88	Pumping rate in well C-12 42 gpm.
7/12/17	13:04	194.78	2,477	91.80	Pumping rate in well C-12 manually decreased to 40.5 gpm.
7/12/17	14:00	191.54	2,533	88.56	Pumping rate in well C-12 40.5 gpm.
7/12/17	15:00	191.21	2,593	88.23	Pumping rate in well C-12 40.5 gpm.
7/12/17	16:00	191.14	2,653	88.16	Pumping rate in well C-12 40.5 gpm.
7/12/17	17:00	191.17	2,713	88.19	Pumping rate in well C-12 40.5 gpm.

Date	Time	Depth to Water (ft btoc)	Elapsed Time\ Recovery (minutes)	Drawdown (feet)	Comments
7/12/17	18:00	191.05	2,773	88.07	Pumping rate in well C-12 40.5 gpm.
7/12/17	19:00	190.91	2,833	87.93	Pumping rate in well C-12 40.5 gpm.
7/12/17	20:00	190.94	2,893	87.96	Pumping rate in well C-12 40.5 gpm.
7/12/17	21:00	190.83	2,953	87.85	Pumping rate in well C-12 40.5 gpm.
7/12/17	22:00	191.02	3,013	88.04	Pumping rate in well C-12 40.5 gpm.
7/12/17	23:00	190.92	3,073	87.94	Pumping rate in well C-12 40.5 gpm.
7/13/17	0:00	191.66	3,133	88.68	Pumping rate in well C-12 40.5 gpm.
7/13/17	1:00	191.71	3,193	88.73	Pumping rate in well C-12 40.5 gpm.
7/13/17	2:00	192.25	3,253	89.27	Pumping rate in well C-12 40.5 gpm.
7/13/17	3:00	192.20	3,313	89.22	Pumping rate in well C-12 40.5 gpm.
7/13/17	4:00	192.33	3,373	89.35	Pumping rate in well C-12 40.5 gpm.
7/13/17	5:00	192.26	3,433	89.28	Pumping rate in well C-12 40.5 gpm.
7/13/17	6:00	192.41	3,493	89.43	Pumping rate in well C-12 40.5 gpm.
7/13/17	7:00	192.18	3,553	89.20	Pumping rate in well C-12 40.5 gpm.
7/13/17	8:00	192.19	3,613	89.21	Pumping rate in well C-12 40.5 gpm.
7/13/17	9:00	192.34	3,673	89.36	Pumping rate in well C-12 40.5 gpm.
	10:00	192.37	3,733	89.39	Pumping rate in well C-12 40.5 gpm.
	11:00	192.33	3,793	89.35	Pumping rate in well C-12 40.5 gpm.
	12:00	192.42	3,853	89.44	Pumping rate in well C-12 40.5 gpm.
	13:00	192.40	3,913	89.42	Pumping rate in well C-12 40.5 gpm.
	14:00	192.43	3,973	89.45	Pumping rate in well C-12 40.5 gpm.
	15:00	192.04	4,033	89.06	Pumping rate in well C-12 40.5 gpm.
	16:00	192.03	4,093	89.05	Pumping rate in well C-12 40.5 gpm.
	17:00	191.92	4,153	88.94	Pumping rate in well C-12 40.5 gpm.
	18:00	191.85	4,213	88.87	Pumping rate in well C-12 40.5 gpm.
	19:00	192.06	4,273	89.08	Pumping rate in well C-12 40.5 gpm.
	20:00	192.03	4,333	89.05	Pumping rate in well C-12 40.5 gpm.
	21:00	191.65	4,393	88.67	Pumping rate in well C-12 40.5 gpm.
	22:00	191.64	4,453	88.66	Pumping rate in well C-12 40.5 gpm.
	23:00	191.55	4,513	88.57	Pumping rate in well C-12 40.5 gpm.
7/14/17	0:00	191.50	4,573	88.52	Pumping rate in well C-12 40.5 gpm.
7/14/17	1:00	191.45	4,633	88.47	Pumping rate in well C-12 40.5 gpm.
7/14/17 7/14/17	2:00	191.25	4,693	88.27	Pumping rate in well C-12 40.5 gpm.
	3:00	191.44	4,753	88.46	Pumping rate in well C-12 40.5 gpm.
7/14/17 7/14/17	4:00 5:00	191.35 191.24	4,813 4,873	88.37 88.26	Pumping rate in well C-12 40.5 gpm. Pumping rate in well C-12 40.5 gpm.
7/14/17	6:00	191.24	4,933	88.23	Pumping rate in well C-12 40.5 gpm. Pumping rate in well C-12 40.5 gpm.
7/14/17	7:00	191.11	4,993	88.13	Pumping rate in well C-12 40.5 gpm. Pumping rate in well C-12 40.5 gpm.
7/14/17	8:00	191.11	5,053	88.39	Pumping rate in well C-12 40.5 gpm. Pumping rate in well C-12 40.5 gpm.
7/14/17	9:00	191.37	5,113	88.44	Pumping rate in well C-12 40.5 gpm. Pumping rate in well C-12 40.5 gpm.
	10:00	191.42	5,173	88.43	Pumping rate in well C-12 40.5 gpm.
	11:00	191.41	5,233	88.45	Pumping rate in well C-12 40.5 gpm. Pumping rate in well C-12 40.5 gpm.
	12:00	191.70	5,293	88.72	Pumping rate in well C-12 40.5 gpm.
	13:00	191.76	5,353	88.78	Pumping rate in well C-12 40.5 gpm.
	14:00	191.81	5,413	88.83	Pumping rate in well C-12 40.5 gpm.
	15:00	191.91	5,473	88.93	Pumping rate in well C-12 40.5 gpm.
	16:00	191.83	5,533	88.85	Pumping rate in well C-12 40.5 gpm.
	17:00	191.99	5,593	89.01	Pumping rate in well C-12 40.5 gpm.
	18:00	191.93	5,653	88.95	Pumping rate in well C-12 40.5 gpm.
	19:00	191.90	5,713	88.92	Pumping rate in well C-12 40.5 gpm.
	20:00	191.46	5,773	88.48	Pumping rate in well C-12 40.5 gpm.
	21:00	191.23	5,833	88.25	Pumping rate in well C-12 40.5 gpm.
	22:00	191.19	5,893	88.21	Pumping rate in well C-12 40.5 gpm.
	23:00	191.26	5,953	88.28	Pumping rate in well C-12 40.5 gpm.

Date	Time	Depth to Water (ft btoc)	Elapsed Time\ Recovery (minutes)	Drawdown (feet)	Comments
7/15/17	0:00	191.36	6,013	88.38	Pumping rate in well C-12 40.5 gpm.
7/15/17	1:00	191.59	6,073	88.61	Pumping rate in well C-12 40.5 gpm.
7/15/17	2:00	191.78	6,133	88.80	Pumping rate in well C-12 40.5 gpm.
7/15/17	3:00	191.85	6,193	88.87	Pumping rate in well C-12 40.5 gpm.
7/15/17	4:00	191.55	6,253	88.57	Pumping rate in well C-12 40.5 gpm.
7/15/17	5:00	191.47	6,313	88.49	Pumping rate in well C-12 40.5 gpm.
7/15/17	6:00	191.37	6,373	88.39	Pumping rate in well C-12 40.5 gpm.
7/15/17	7:00	191.62	6,433	88.64	Pumping rate in well C-12 40.5 gpm.
7/15/17	8:00	191.58	6,493	88.60	Pumping rate in well C-12 40.5 gpm.
7/15/17	9:00	191.65	6,553	88.67	Pumping rate in well C-12 40.5 gpm.
7/15/17	10:00	191.59 191.70	6,613 6,673	88.61 88.72	Pumping rate in well C-12 40.5 gpm.
7/15/17 7/15/17	11:00 12:00	191.70	6,733	88.73	Pumping rate in well C-12 40.5 gpm. Pumping rate in well C-12 40.5 gpm.
7/15/17	13:00	191./1	6,793	89.08	Pumping rate in well C-12 40.5 gpm. Pumping rate in well C-12 40.5 gpm.
7/15/17	14:00	192.17	6,853	89.08	Pumping rate in well C-12 40.5 gpm. Pumping rate in well C-12 40.5 gpm.
7/15/17	15:00	192.17	6,913	89.37	Pumping rate in well C-12 40.5 gpm. Pumping rate in well C-12 40.5 gpm.
7/15/17	16:00	192.55	6,973	89.57	Pumping rate in well C-12 40.5 gpm. Pumping rate in well C-12 40.5 gpm.
7/15/17	17:00	192.61	7,033	89.63	Pumping rate in well C-12 40.5 gpm.
7/15/17	18:00	192.57	7,093	89.59	Pumping rate in well C-12 40.5 gpm.
7/15/17	19:00	192.31	7,153	89.33	Pumping rate in well C-12 40.5 gpm.
7/15/17	19:09	192.29	7,162	89.31	Pumping rate in well C-12 40.5 gpm.
7/15/17	20:00	192.05	7,213	89.07	Pumping rate in well C-12 40.5 gpm.
7/15/17	21:00	191.90	7,273	88.92	Pumping rate in well C-12 40.5 gpm.
7/15/17	22:00	191.69	7,333	88.71	Pumping rate in well C-12 40.5 gpm.
7/15/17	23:00	191.36	7,393	88.38	Pumping rate in well C-12 40.5 gpm.
7/16/17	0:00	191.26	7,453	88.28	Pumping rate in well C-12 40.5 gpm.
7/16/17	1:00	191.22	7,513	88.24	Pumping rate in well C-12 40.5 gpm.
7/16/17	1:09	191.24	7,522	88.26	Shut down of simultaneous pumping test (wells C-6, 12, 14, 16, and 23) started.
7/16/17	1:20	191.33	7,533	88.35	Pumping rate in well C-12 40.5 gpm.
7/16/17	1:21	183.11	-1	80.13	Pump in well C-12 shut down.
7/16/17	1:22	167.24	-2	64.26	
7/16/17	1:23	160.87	-3	57.89	
7/16/17	1:24	157.52	-4	54.54	
7/16/17	1:25	154.82	-5	51.84	
7/16/17	1:26	152.58	-6 -7	49.60	
7/16/17	1:27	150.82		47.84	
7/16/17 7/16/17	1:28 1:29	149.28 148.00	-8 -9	46.30 45.02	
7/16/17	1:29	148.00	-10	43.88	
7/16/17	1:31	145.89	-10	42.91	
7/16/17	1:32	145.03	-11	42.91	
7/16/17	1:33	144.26	-13	41.28	
7/16/17	1:34	143.52	-14	40.54	
7/16/17	1:35	142.86	-15	39.88	
7/16/17	1:40	140.12	-20	37.14	
7/16/17	1:45	138.18	-25	35.20	
7/16/17	1:50	136.48	-30	33.50	
7/16/17	1:55	135.13	-35	32.15	
7/16/17	2:00	133.92	-40	30.94	
7/16/17	2:05	132.78	-45	29.80	
7/16/17	2:10	131.86	-50	28.88	
7/16/17	2:15	130.93	-55	27.95	
7/16/17	2:20	130.09	-60	27.11	

Date	Time	Depth to Water (ft btoc)	Elapsed Time\ Recovery (minutes)	Drawdown (feet)	Comments
7/16/17	3:00	125.25	-100	22.27	
7/16/17	4:00	121.01	-160	18.03	
7/16/17	5:00	118.35	-220	15.37	
7/16/17	6:00	116.89	-280	13.91	
7/16/17	7:00	115.49	-340	12.51	
7/16/17	8:00	114.37	-400	11.39	
7/16/17	9:00	113.64	-460	10.66	
7/16/17	10:00	112.99	-520	10.01	
7/16/17	11:00	112.53	-580	9.55	
7/16/17	12:00	112.38	-640	9.40	
7/16/17	13:00	112.38	-700	9.40	
7/16/17	14:00	112.30	-760	9.32	000/
7/16/17	15:00	110.97	-820	7.99	90% recovery achieved.
7/16/17	16:00	110.80	-880	7.82	
7/16/17	17:00	110.48	-940	7.50	
7/16/17	18:00	110.10	-1,000	7.11	
7/16/17	19:00	109.80	-1,060	6.82	
7/16/17	20:00	109.45	-1,120	6.47 6.03	
		109.01	-1,180		
7/16/17	22:00	109.23	-1,240	6.25	
7/16/17	23:00 0:00	109.02 108.91	-1,300 -1,360	6.04 5.93	
7/17/17	1:00	108.91	-1,420	5.93	
7/17/17	2:00	108.77	-1,420	5.79	
7/17/17	3:00	108.67	-1,540	5.69	
7/17/17	4:00	108.62	-1,600	5.64	
7/17/17	5:00	108.50	-1,660	5.52	
7/17/17	6:00	108.42	-1,720	5.44	
7/17/17	7:00	108.38	-1,780	5.40	
7/17/17	8:00	108.26	-1,840	5.28	
7/17/17	9:00	108.29	-1,900	5.31	
7/17/17	10:00	108.20	-1,960	5.21	
7/17/17	11:00	108.18	-2,020	5.20	
7/17/17	12:00	108.06	-2,080	5.08	
7/17/17	13:00	107.94	-2,140	4.96	
7/17/17	14:00	107.86	-2,200	4.88	
7/17/17	15:00	107.76	-2,260	4.78	
7/17/17	16:00	107.70	-2,320	4.72	
7/17/17	17:00	107.64	-2,380	4.66	
7/17/17	18:00	107.57	-2,440	4.58	
7/17/17	19:00	107.52	-2,500	4.54	
7/17/17	20:00	107.58	-2,560	4.60	
7/17/17	21:00	107.45	-2,620	4.47	
7/17/17	22:00	107.40	-2,680	4.42	
7/17/17	23:00	107.34	-2,740	4.36	
7/18/17	0:00	107.27	-2,800	4.29	
7/18/17	1:00	107.22	-2,860	4.24	
7/18/17	2:00	107.18	-2,920	4.20	
7/18/17	3:00	107.18	-2,980	4.20	
7/18/17	4:00	107.17	-3,040	4.19	
7/18/17	5:00	107.13	-3,100	4.15	
7/18/17	6:00	107.02	-3,160	4.04	
7/18/17	7:00	107.04	-3,220	4.06	
7/18/17	8:00	107.06	-3,280	4.08	

Date	Time	Depth to Water (ft btoc)	Elapsed Time\ Recovery (minutes)	Drawdown (feet)	Comments
7/18/17	9:00	107.01	-3,340	4.03	
7/18/17	10:00	106.96	-3,400	3.98	
7/18/17	11:00	106.87	-3,460	3.89	
7/18/17	12:00	106.80	-3,520	3.82	
7/18/17	13:00	106.82	-3,580	3.84	
7/18/17	14:00	106.77	-3,640	3.79	
7/18/17	15:00	106.63	-3,700	3.65	
7/18/17	16:00	106.65	-3,760	3.67	
7/18/17	17:00	106.68	-3,820	3.70	
7/18/17	18:00	106.54	-3,880	3.56	
7/18/17	19:00	106.52	-3,940	3.54	
7/18/17	20:00	106.49	-4,000	3.51	
7/18/17	21:00	106.46	-4,060	3.48	
7/18/17 7/18/17	22:00	106.44	-4,120	3.46	
7/18/17	23:00 0:00	106.40 106.30	-4,180 -4,240	3.41 3.32	
7/19/17	1:00	106.30	-4,240 -4,300	3.32	
7/19/17	2:00	106.29	-4,360	3.31	
7/19/17	3:00	106.29	-4,360 -4,420	3.28	
7/19/17	4:00	106.27	-4,480	3.29	
7/19/17	5:00	106.28	-4,540	3.30	
7/19/17	6:00	106.28	-4,600	3.30	
7/19/17	7:00	106.34	-4,660	3.36	
7/19/17	8:00	106.33	-4,720	3.35	
7/19/17	9:00	106.28	-4,780	3.30	
7/19/17	10:00	106.27	-4,840	3.29	
7/19/17	11:00	106.26	-4,900	3.28	
7/19/17	12:00	106.20	-4,960	3.22	
7/19/17	13:00	106.10	-5,020	3.12	
7/19/17	14:00	106.03	-5,080	3.05	
7/19/17	15:00	106.08	-5,140	3.10	
7/19/17	16:00	105.97	-5,200	2.99	
7/19/17	17:00	105.93	-5,260	2.95	
7/19/17	18:00	105.96	-5,320	2.97	
7/19/17	19:00	105.87	-5,380	2.89	
7/19/17	20:00	105.87	-5,440	2.89	
7/19/17	21:00	105.81	-5,500	2.83	
7/19/17	22:00	105.82	-5,560	2.84	
7/19/17	23:00	105.77	-5,620	2.79	
7/20/17	0:00	105.80	-5,680	2.82	
7/20/17	1:00	105.74	-5,740	2.76	
7/20/17	2:00	105.77	-5,800	2.79	
7/20/17	3:00	105.67	-5,860	2.68	
7/20/17	4:00	105.79	-5,920	2.81	
7/20/17	5:00	105.76	-5,980	2.78	
7/20/17 7/20/17	6:00 7:00	105.77 105.80	-6,040 -6,100	2.79 2.82	
7/20/17	8:00	105.80	-6,160	2.82	
7/20/17	9:00	105.80	-6,220	2.83	
7/20/17	10:00	105.84	-6,280	2.86	
7/20/17	11:00	105.72	-6,340	2.74	
7/20/17	12:00	105.72	-6,400	2.75	
7/20/17	13:00	105.67	-6,460	2.69	
7/20/17	14:00	105.57	-6,520	2.59	
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Date	Time	Depth to Water (ft btoc)	Elapsed Time\ Recovery (minutes)	Drawdown (feet)	Comments
7/20/17	15:00	105.56	-6,580	2.57	
7/20/17	16:00	105.48	-6,640	2.49	
7/20/17	17:00	105.38	-6,700	2.40	
7/20/17	18:00	105.44	-6,760	2.46	
7/20/17	19:00	105.42	-6,820	2.44	
7/20/17	20:00	105.34	-6,880	2.36	
7/20/17	21:00	105.39	-6,940	2.41	
7/20/17	22:00	105.39	-7,000	2.41	
7/20/17	23:00	105.34	-7,060	2.35	
7/21/17 7/21/17	0:00 1:00	105.37 105.27	-7,120	2.39 2.29	
7/21/17	2:00	105.27	-7,180 -7,240	2.29	
7/21/17	3:00	105.32	-7,240 -7,300	2.33	
7/21/17	4:00	105.24	-7,360	2.26	
7/21/17	5:00	105.25	-7,420	2.26	
7/21/17	6:00	105.23	-7,420	2.33	
7/21/17	7:00	105.36	-7,540	2.38	
7/21/17	8:00	105.38	-7,600	2.40	
7/21/17	9:00	105.40	-7,660	2.41	
7/21/17	10:00	105.41	-7,720	2.43	
7/21/17	11:00	105.36	-7,780	2.38	
7/21/17	12:00	105.28	-7,840	2.30	
7/21/17	13:00	105.27	-7,900	2.29	
7/21/17	14:00	105.19	-7,960	2.21	
7/21/17	15:00	105.23	-8,020	2.25	
7/21/17	16:00	105.14	-8,080	2.16	
7/21/17	17:00	105.08	-8,140	2.10	
7/21/17	18:00	105.07	-8,200	2.09	
7/21/17	19:00	105.07	-8,260	2.09	
7/21/17	20:00	105.02	-8,320	2.04	
7/21/17 7/21/17	21:00 22:00	105.07 105.09	-8,380 -8,440	2.09 2.10	
7/21/17	23:00	105.09	-8,500	2.10	
7/22/17	0:00	105.07	-8,560	2.08	
7/22/17	1:00	105.04	-8,620	2.06	
7/22/17	2:00	105.01	-8,680	2.02	
7/22/17	3:00	104.98	-8,740	1.99	
7/22/17	4:00	104.92	-8,800	1.94	
7/22/17	5:00	104.91	-8,860	1.93	
7/22/17	6:00	104.97	-8,920	1.99	
7/22/17	7:00	105.04	-8,980	2.06	
7/22/17	8:00	105.02	-9,040	2.04	
7/22/17	9:00	105.09	-9,100	2.11	
7/22/17	10:00	105.12	-9,160	2.13	
7/22/17	11:00	105.06	-9,220	2.08	
7/22/17	12:00	105.10	-9,280	2.12	
7/22/17	13:00	105.03	-9,340	2.05	
7/22/17	14:00	104.97 104.94	-9,400 -9,460	1.99 1.96	
7/22/17 7/22/17	15:00 16:00	104.88	-9,460 -9,520	1.96	
7/22/17	17:00	104.88	-9,520 -9,580	1.79	
7/22/17	18:00	104.77	-9,640	1.79	
7/22/17	19:00	104.74	-9,700	1.76	
7/22/17	20:00	104.74	-9,760	1.83	
			- ,,		

Date	Time	Depth to Water (ft btoc)	Elapsed Time\ Recovery (minutes)	Drawdown (feet)	Comments
7/22/17	21:00	104.78	-9,820	1.80	
7/22/17	22:00	104.80	-9,880	1.82	
7/22/17	23:00	104.79	-9,940	1.81	
7/23/17	0:00	104.76	-10,000	1.78	
7/23/17	1:00	104.70	-10,060	1.72	
7/23/17	2:00	104.69	-10,120	1.71	
7/23/17	3:00	104.63	-10,180	1.65	
7/23/17	4:00	104.64	-10,240	1.66	
7/23/17	5:00	104.57	-10,300	1.59	
7/23/17	6:00	104.62	-10,360	1.64	
7/23/17	7:00	104.63	-10,420	1.65	
7/23/17	8:00	104.70	-10,480	1.72	
7/23/17	9:00	104.76	-10,540	1.78	
7/23/17	10:00	104.81	-10,600	1.83	
7/23/17	11:00 12:00	104.84 104.79	-10,660 -10,720	1.86 1.81	
7/23/17	12:00	104.80	-10,720	1.81	
7/23/17	14:00	104.82	-10,780	1.84	
7/23/17	15:00	104.82	-10,900	1.75	
7/23/17	16:00	104.79	-10,960	1.61	
7/23/17	17:00	104.64	-11,020	1.66	
7/23/17	18:00	104.55	-11,080	1.57	
7/23/17	19:00	104.57	-11,140	1.59	
7/23/17	20:00	104.57	-11,200	1.59	
7/23/17	21:00	104.61	-11,260	1.63	
7/23/17	22:00	104.69	-11,320	1.71	
7/23/17	23:00	104.66	-11,380	1.68	
7/24/17	0:00	104.66	-11,440	1.68	
7/24/17	1:00	104.67	-11,500	1.69	
7/24/17	2:00	104.68	-11,560	1.70	
7/24/17	3:00	104.60	-11,620	1.62	
7/24/17	4:00	104.55	-11,680	1.57	
7/24/17	5:00	104.55	-11,740	1.57	
7/24/17	6:00	104.48	-11,800	1.50	
7/24/17	7:00 8:00	104.50 104.50	-11,860 -11,920	1.52 1.52	
7/24/17	9:00	104.59	-11,920	1.61	
7/24/17	10:00	104.56	-12,040	1.58	
7/24/17	11:00	104.57	-12,100	1.59	
7/24/17	12:00	104.69	-12,160	1.71	
7/24/17	13:00	104.64	-12,220	1.65	
7/24/17	14:00	104.65	-12,280	1.67	
7/24/17	15:00	104.68	-12,340	1.70	
7/24/17	16:00	104.57	-12,400	1.59	
7/24/17	17:00	104.59	-12,460	1.61	
7/24/17	18:00	104.50	-12,520	1.52	
7/24/17	19:00	104.65	-12,580	1.66	
7/24/17	20:00	104.62	-12,640	1.64	
7/24/17	21:00	104.67	-12,700	1.69	
7/24/17	22:00	104.70	-12,760	1.72	
7/24/17	23:00	104.83	-12,820	1.85	
7/25/17	0:00	104.74	-12,880	1.76	
7/25/17	1:00	104.87	-12,940	1.89	
7/25/17	2:00	104.93	-13,000	1.95	

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Date	Time	Depth to Water (ft btoc)	Elapsed Time\ Recovery (minutes)	Drawdown (feet)	Comments
7/25/17	3:00	104.92	-13,060	1.94	
7/25/17	4:00	104.93	-13,120	1.95	
7/25/17	5:00	104.98	-13,180	2.00	
7/25/17	6:00	105.00	-13,240	2.02	
7/25/17	7:00	105.03	-13,300	2.05	
7/25/17	8:00	105.02	-13,360	2.04	
7/25/17	9:00	105.18	-13,420	2.20	
7/25/17	10:00	105.24	-13,480	2.26	
7/25/17	11:00	105.33	-13,540	2.35	
7/25/17	12:00	105.35	-13,600	2.37	Pump in well C-21 started at 11:44.
7/25/17	13:00	105.43	-13,660	2.45	
7/25/17	14:00	105.51	-13,720	2.53	
7/25/17	15:00	105.58	-13,780	2.60	
7/25/17	16:00	105.54	-13,840	2.56	
7/25/17	17:00	105.62 105.50	-13,900 13,060	2.64 2.51	
7/25/17 7/25/17	18:00 19:00	105.50	-13,960 -14,020	2.51	
			,		
7/25/17 7/25/17	20:00	105.57 105.53	-14,080 -14,140	2.59 2.55	
7/25/17	22:00	105.62	-14,140	2.64	
7/25/17	23:00	105.60	-14,260	2.62	
7/26/17	0:00	105.59	-14,320	2.61	
7/26/17	1:00	105.68	-14,380	2.70	
7/26/17	2:00	105.72	-14,440	2.74	
7/26/17	3:00	105.76	-14,500	2.78	
7/26/17	4:00	105.76	-14,560	2.78	
7/26/17	5:00	105.73	-14,620	2.75	
7/26/17	6:00	105.81	-14,680	2.83	
7/26/17	7:00	105.83	-14,740	2.85	
7/26/17	8:00	105.85	-14,800	2.87	
7/26/17	9:00	105.91	-14,860	2.93	
7/26/17	10:00	105.97	-14,920	2.99	
7/26/17	11:00	106.02	-14,980	3.04	
7/26/17	12:00	106.05	-15,040	3.07	
7/26/17	13:00	106.14	-15,100	3.16	
7/26/17	14:00	106.09	-15,160	3.11	
7/26/17	15:00	106.10	-15,220	3.12	
7/26/17	16:00	106.06	-15,280	3.08	
7/26/17	17:00	106.02	-15,340	3.04	
7/26/17	18:00	106.02	-15,400	3.04	
7/26/17	19:00	105.94	-15,460	2.96	
7/26/17	20:00	105.91	-15,520	2.93	
7/26/17	21:00	105.86	-15,580 15,640	2.88	
7/26/17	22:00	105.88 105.85	-15,640	2.90	
7/26/17 7/27/17	23:00 0:00	105.85	-15,700 -15,760	2.87 2.81	
7/27/17	1:00	105.79	-15,820	2.81	
7/27/17	2:00	105.82	-15,880	2.84	
7/27/17	3:00	105.82	-15,940	2.82	
7/27/17	4:00	105.73	-16,000	2.75	
7/27/17	5:00	105.65	-16,060	2.67	
7/27/17	6:00	105.68	-16,120	2.70	
7/27/17	7:00	105.66	-16,180	2.68	
7/27/17	8:00	105.50	-16,240	2.52	
			-, -	- '	1

Date	Time	Depth to Water (ft btoc)	Elapsed Time\ Recovery (minutes)	Drawdown (feet)	Comments
7/27/17	9:00	105.55	-16,300	2.57	
7/27/17	10:00	105.55	-16,360	2.57	
7/27/17	11:00	105.61	-16,420	2.63	
7/27/17	12:00	105.56	-16,480	2.58	
7/27/17	13:00	105.63	-16,540	2.65	
7/27/17	14:00	105.51	-16,600	2.53	
7/27/17	15:00	105.38	-16,660	2.40	
7/27/17	16:00	105.45	-16,720	2.47	
7/27/17	17:00	105.41	-16,780	2.43	
7/27/17	18:00	105.32	-16,840	2.34	
7/27/17	19:00	105.29	-16,900	2.31	
7/27/17	20:00	105.23	-16,960	2.25	
7/27/17	21:00	105.23	-17,020	2.25	
7/27/17	22:00	105.19	-17,080	2.21	
7/27/17	23:00	105.25	-17,140	2.27	
7/28/17	0:00	105.18	-17,200	2.20	
7/28/17	1:00	105.19	-17,260	2.21	
7/28/17	2:00	105.28	-17,320	2.30	
7/28/17	3:00	105.16	-17,380	2.18	
7/28/17	4:00	105.26	-17,440	2.28	
7/28/17	5:00	105.22	-17,500	2.24	
7/28/17	6:00	105.11	-17,560	2.13	
7/28/17	7:00	105.12	-17,620	2.13	
7/28/17	8:00	105.14	-17,680	2.16	
7/28/17	9:00	105.14	-17,740	2.16	
7/28/17 7/28/17	10:00 11:00	105.09 105.18	-17,800 -17,860	2.11 2.20	
7/28/17	12:00	105.18	-17,920	2.13	
7/28/17	13:00	105.11	-17,920	2.13	Pump in well C-21 shut down at 12:15.
7/28/17	14:00	105.08	-18,040	2.10	Fullip III well C-21 shut down at 12.13.
7/28/17	15:00	105.08	-18,100	2.13	
7/28/17	16:00	105.05	-18,160	2.07	
7/28/17	17:00	105.03	-18,220	2.05	
7/28/17	18:00	104.93	-18,280	1.95	
7/28/17	19:00	104.93	-18,340	1.95	
7/28/17	20:00	104.91	-18,400	1.93	
7/28/17	21:00	104.92	-18,460	1.94	
7/28/17	22:00	104.89	-18,520	1.91	
7/28/17	23:00	104.87	-18,580	1.89	
7/29/17	0:00	104.94	-18,640	1.96	
7/29/17	1:00	104.95	-18,700	1.97	
7/29/17	2:00	104.98	-18,760	1.99	
7/29/17	3:00	104.94	-18,820	1.96	
7/29/17	4:00	104.96	-18,880	1.98	
7/29/17	5:00	104.92	-18,940	1.93	
7/29/17	6:00	104.87	-19,000	1.89	
7/29/17	7:00	104.93	-19,060	1.95	
7/29/17	8:00	104.88	-19,120	1.90	
7/29/17	9:00	104.86	-19,180	1.88	
7/29/17	10:00	104.90	-19,240	1.91	
7/29/17	11:00 12:00	104.94	-19,300 10,260	1.96	
7/29/17		104.94	-19,360	1.96	
7/29/17	13:00	104.85	-19,420	1.87	
7/29/17	14:00	104.89	-19,480	1.91	

Date	Time	Depth to Water (ft btoc)	Elapsed Time\ Recovery (minutes)	Drawdown (feet)	Comments
7/29/17	15:00	104.84	-19,540	1.85	
7/29/17	16:00	104.86	-19,600	1.88	
7/29/17	17:00	104.86	-19,660	1.88	
7/29/17	18:00	104.90	-19,720	1.92	
7/29/17	19:00	104.85	-19,780	1.87	
7/29/17	20:00	104.85	-19,840	1.87	
7/29/17	21:00	104.84	-19,900	1.86	
7/29/17	22:00	104.75	-19,960	1.77	
7/29/17	23:00	104.87	-20,020	1.89	
7/30/17	0:00	104.91	-20,080	1.93	
7/30/17	1:00	104.86	-20,140	1.88	
7/30/17	2:00	104.80	-20,200	1.82	
7/30/17	3:00	104.93	-20,260	1.95	
7/30/17	4:00	104.85	-20,320	1.87	
7/30/17	5:00	104.93	-20,380	1.95	
7/30/17	6:00	104.97	-20,440	1.99	
7/30/17	7:00	104.98	-20,500	1.99	
7/30/17	8:00	104.94	-20,560	1.96	
7/30/17	9:00	104.94	-20,620	1.96	
7/30/17	10:00	104.92	-20,680	1.93	
7/30/17	11:00	104.96	-20,740	1.98	
7/30/17	12:00	104.92	-20,800	1.93	
7/30/17	13:00	104.90	-20,860	1.92 1.94	
7/30/17	14:00	104.92	-20,920		
7/30/17 7/30/17	15:00 16:00	104.84 104.84	-20,980 -21,040	1.86 1.86	
7/30/17	17:00	104.97	-21,100	1.99	
7/30/17	18:00	104.90	-21,160	1.92	
7/30/17	19:00	104.82	-21,100	1.84	
7/30/17	20:00	104.91	-21,220	1.93	
7/30/17	21:00	104.91	-21,340	1.93	
7/30/17	22:00	104.89	-21,400	1.91	
7/30/17	23:00	104.93	-21,460	1.95	
7/31/17	0:00	104.90	-21,520	1.92	
7/31/17	1:00	104.89	-21,580	1.91	
7/31/17	2:00	104.85	-21,640	1.87	
7/31/17	3:00	104.94	-21,700	1.96	
7/31/17	4:00	104.96	-21,760	1.98	
7/31/17	5:00	104.96	-21,820	1.98	
7/31/17	6:00	104.96	-21,880	1.98	
7/31/17	7:00	104.95	-21,940	1.97	
7/31/17	8:00	104.90	-22,000	1.92	
7/31/17	9:00	104.89	-22,060	1.91	
7/31/17	10:00	104.90	-22,120	1.92	
7/31/17	11:00	104.90	-22,180	1.92	
7/31/17	12:00	104.98	-22,240	2.00	
7/31/17	13:00	104.87	-22,300	1.88	
7/31/17	14:00	104.85	-22,360	1.86	
7/31/17	15:00	104.91	-22,420	1.93	
7/31/17	16:00	104.81	-22,480	1.83	
7/31/17	17:00	104.89	-22,540	1.91	
7/31/17	18:00	104.85	-22,600	1.87	
7/31/17	19:00	104.81	-22,660	1.83	
7/31/17	20:00	104.79	-22,720	1.81	

Date	Time	Depth to Water (ft btoc)	Elapsed Time\ Recovery (minutes)	Drawdown (feet)	Comments
7/31/17	21:00	104.73	-22,780	1.75	
7/31/17	22:00	104.77	-22,840	1.79	
7/31/17	23:00	104.73	-22,900	1.74	
8/1/17	0:00	104.78	-22,960	1.80	
8/1/17	1:00	104.72	-23,020	1.74	
8/1/17	2:00	104.81	-23,080	1.83	
8/1/17	3:00	104.79	-23,140	1.81	
8/1/17	4:00	104.81	-23,200	1.83	
8/1/17	5:00	104.80	-23,260	1.82	
8/1/17	6:00	104.88	-23,320	1.90	
8/1/17	7:00	104.84	-23,380	1.86	
8/1/17	8:00	104.86	-23,440	1.88	
8/1/17	9:00	104.87	-23,500	1.89	
8/1/17	10:00	104.92	-23,560	1.94	
8/1/17	11:00	104.86	-23,620	1.88	
8/1/17	12:00	104.80	-23,680	1.82	
8/1/17	13:00	104.78	-23,740	1.80	
8/1/17	14:00	104.78	-23,800	1.80	
8/1/17	15:00	104.72	-23,860	1.74	
8/1/17	16:00	104.80	-23,920	1.82	
8/1/17	17:00	104.75	-23,980	1.77	
8/1/17	18:00	104.77	-24,040	1.79	
8/1/17	19:00	104.76	-24,100	1.78	
8/1/17	20:00	104.67	-24,160	1.69	
8/1/17	21:00	104.70	-24,220	1.72	
8/1/17 8/1/17	22:00 23:00	104.68 104.71	-24,280 -24,340	1.70 1.73	
8/2/17	0:00	104.68	-24,400	1.70	
8/2/17	1:00	104.68	-24,460	1.70	
8/2/17	2:00	104.80	-24,520	1.82	
8/2/17	3:00	104.76	-24,580	1.78	
8/2/17	4:00	104.75	-24,640	1.77	
8/2/17	5:00	104.77	-24,700	1.79	
8/2/17	6:00	104.75	-24,760	1.77	
8/2/17	7:00	104.71	-24,820	1.73	
8/2/17	8:00	104.77	-24,880	1.79	
8/2/17	9:00	104.87	-24,940	1.89	
8/2/17	10:00	104.73	-25,000	1.75	
8/2/17	11:00	104.75	-25,060	1.77	
8/2/17	12:00	104.79	-25,120	1.81	
8/2/17	13:00	104.65	-25,180	1.67	
8/2/17	14:00	104.60	-25,240	1.62	
8/2/17	15:00	104.63	-25,300	1.65	
8/2/17	16:00	104.70	-25,360	1.72	
8/2/17	17:00	104.69	-25,420	1.71	
8/2/17	18:00	104.69	-25,480	1.71	
8/2/17	19:00	104.72	-25,540	1.74	
8/2/17	20:00	104.69	-25,600	1.71	
8/2/17	21:00	104.65	-25,660	1.67	
8/2/17	22:00	104.70	-25,720	1.71	
8/2/17	23:00	104.68	-25,780	1.70	
8/3/17	0:00	104.64	-25,840	1.66	
8/3/17	1:00	104.73	-25,900	1.75	
8/3/17	2:00	104.64	-25,960	1.66	

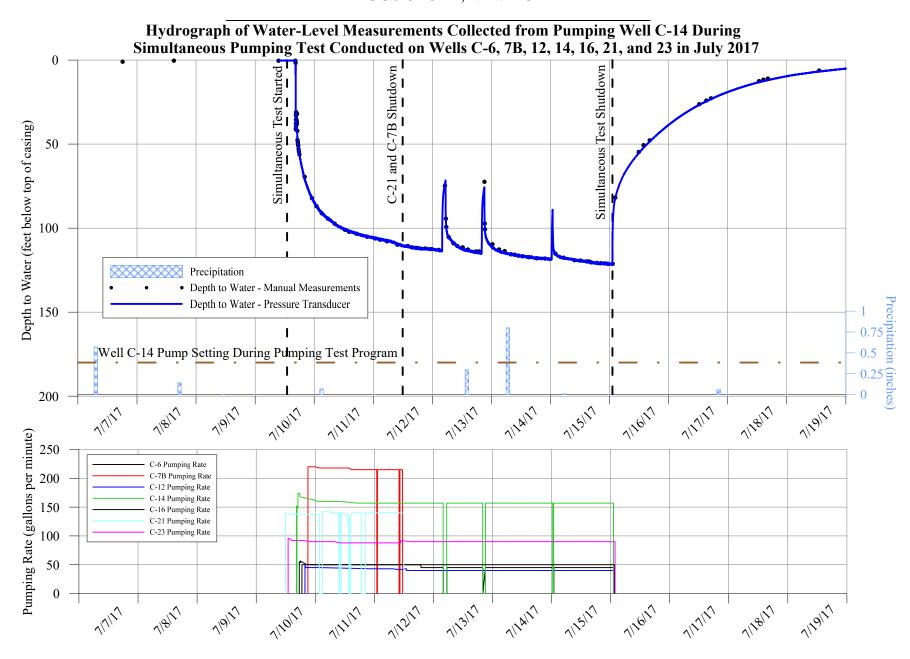
Summary of Water-Level Measurements from Pressure Transducer Installed in Well C-12 Collected During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Depth to Water (ft btoc)	Elapsed Time\ Recovery (minutes)	Drawdown (feet)	Comments
8/3/17	3:00	104.70	-26,020	1.72	
8/3/17	4:00	104.65	-26,080	1.67	
8/3/17	5:00	104.65	-26,140	1.67	
8/3/17	6:00	104.71	-26,200	1.73	
8/3/17	7:00	104.72	-26,260	1.74	
8/3/17	8:00	104.74	-26,320	1.76	
8/3/17	9:00	104.85	-26,380	1.87	
8/3/17	10:00	104.80	-26,440	1.82	
8/3/17	11:00	104.72	-26,500	1.74	
8/3/17	12:00	104.73	-26,560	1.75	
8/3/17	13:00	104.64	-26,620	1.66	
8/3/17	14:00	104.61	-26,680	1.63	
8/3/17	15:00	104.56	-26,740	1.58	
8/3/17	16:00	104.55	-26,800	1.57	
8/3/17	17:00	104.56	-26,860	1.57	
8/3/17	18:00	104.55	-26,920	1.57	
8/3/17	19:00	104.63	-26,980	1.65	
8/3/17	20:00	104.64	-27,040	1.66	
8/3/17	21:00	104.63	-27,100	1.65	
8/3/17	22:00	104.72	-27,160	1.74	
8/3/17	23:00	104.70	-27,220	1.72	

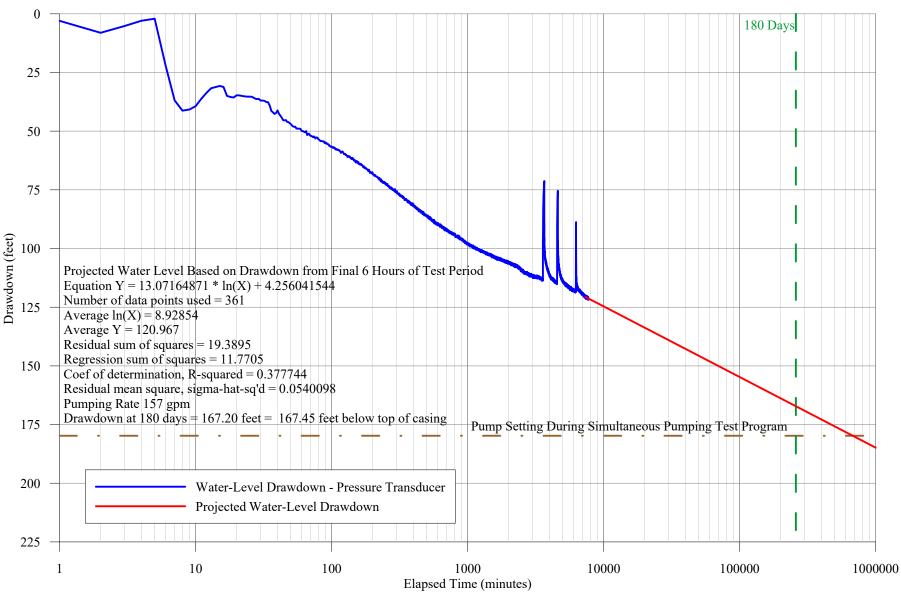
ft btoc feet below top of casing gpm gallons per minute

H:\Lake Anne\Clovewood\2017\July Pumping Test Report\C-12 Table.docx

C-14



180-Day Water-Level Drawdown Projection on Pumping Well C-14 from Water-Level Measurements Collected from Pumping Well C-14 During Simultanous Pumping Test Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Date	Time	Depth to Water	Elapsed Time /Recovery	Drawdown	Comments
		(ft btoc)	(minutes)	(feet)	
7/10/17	10:00	0.33			Pressure transducer installed in well.
7/10/17	11:00	0.30			
7/10/17	11:54	0.25			Static water level used from prior to the start of pumping in any onsite wells.
7/10/17	12:00	0.29			Pump in well C-21 started at 11:55.
7/10/17	13:00	0.30			Pump in well C-23 started at 12:59.
7/10/17	14:00	0.30			
7/10/17	15:00	0.26			
7/10/17	16:00	0.36			
7/10/17	16:23	0.36			
7/10/17	16:24	3.27	1	3.02	Pump in well C-14 started.
7/10/17	16:25	8.36	2	8.11	
7/10/17	16:26	5.46	3	5.21	
7/10/17	16:27	3.18	4	2.93	Device and a series of the series of the series of
7/10/17	16:28	2.32	5	2.07	Pump was running slow, corrected rotation.
7/10/17 7/10/17	16:29 16:30	22.08 37.10	6 7	21.83 36.85	Pumping rate in well C-14 152 gpm.
		41.52		41.27	
7/10/17 7/10/17	16:31 16:32	41.52	8 9	40.76	
7/10/17	16:33	39.54	10	39.29	
7/10/17	16:34	36.47	11	36.22	
7/10/17	16:35	33.94	12	33.69	Pumping rate in well C-14 152 gpm.
7/10/17	16:36	31.95	13	31.70	1 umping rate in wen C-14 132 gpin.
7/10/17	16:37	31.44	14	31.19	
7/10/17	16:38	31.00	15	30.75	
7/10/17	16:39	31.39	16	31.14	
7/10/17	16:40	35.23	17	34.98	Pumping rate in well C-14 152 gpm.
7/10/17	16:45	35.27	22	35.02	1 8 - 31
7/10/17	16:50	36.20	27	35.95	
7/10/17	16:55	37.29	32	37.04	Pumping rate in well C-14 152 gpm.
7/10/17	17:00	42.26	37	42.01	Pumping rate in well C-14 manually increased.
7/10/17	17:05	43.67	42	43.42	
7/10/17	17:10	46.25	47	46.00	
7/10/17	17:15	48.26	52	48.01	
7/10/17	17:20	49.22	57	48.97	
7/10/17	17:25	50.26	62	50.01	Pumping rate in well C-14 168 gpm.
7/10/17	18:00	56.47	97	56.22	Pump in well C-16 started at 17:31.
7/10/17	19:00	63.39	157	63.14	Pump in well C-6 started at 18:35.
7/10/17	20:00	69.89	217	69.64	Pump in well C-12 started at 19:48.
7/10/17	21:00	74.57	277	74.32	Pump in well C-7B started at 21:03.
7/10/17	22:00	78.37	337	78.12	Pumping rate in well C-14 168 gpm.
7/10/17	23:00	82.21	397	81.96	Pumping rate in well C-14 163 gpm.
7/11/17	0:00	84.45	457	84.20	Pumping rate in well C-14 163 gpm.
7/11/17	1:00	87.16	517	86.91	Pumping rate in well C-14 160 gpm.
7/11/17	2:00	89.11 90.89	577	88.86	Pumping rate in well C-14 160 gpm.
7/11/17 7/11/17	3:00 4:00	90.89	637 697	90.64 92.52	Pumping rate in well C-14 160 gpm. Pumping rate in well C-14 160 gpm.
7/11/17	5:00	93.41	757	93.16	Pumping rate in well C-14 160 gpm. Pumping rate in well C-14 160 gpm.
7/11/17	6:00	94.84	817	94.59	Pumping rate in well C-14 160 gpm.
7/11/17	7:00	96.05	877	95.80	Pumping rate in well C-14 160 gpm. Pumping rate in well C-14 160 gpm.
7/11/17	8:00	97.08	937	96.83	Pumping rate in well C-14 160 gpm.
7/11/17	9:00	97.91	997	97.66	Pumping rate in well C-14 160 gpm.
7/11/17	10:00	98.95	1,057	98.70	Pumping rate in well C-14 160 gpm.
7/11/17	11:00	99.80	1,117	99.55	Pumping rate in well C-14 160 gpm.
// 11/1/	11.00	77.00	1,11/	11.55	1 amping rate in wen e-14 100 gpin.

		Depth to	Elapsed Time	Drawdown	
Date	Time	Water	/Recovery	(feet)	Comments
		(ft btoc)	(minutes)	. ,	
7/11/17	12:00	100.73	1,177	100.48	Pumping rate in well C-14 160 gpm.
7/11/17	13:00	101.39	1,237	101.14	Pumping rate in well C-14 159 gpm.
7/11/17	14:00	101.29	1,297	101.04	Pumping rate in well C-14 158 gpm.
7/11/17	15:00	102.30	1,357	102.05	Pumping rate in well C-14 158 gpm.
7/11/17	16:00	102.75	1,417	102.50	Pumping rate in well C-14 158 gpm.
7/11/17	17:00	102.53	1,477	102.28	Pumping rate in well C-14 157 gpm.
7/11/17	18:00	103.28	1,537	103.03	Pumping rate in well C-14 157 gpm.
7/11/17	19:00	103.70	1,597	103.45	Pumping rate in well C-14 157 gpm.
7/11/17	20:00	104.32	1,657	104.07	Pumping rate in well C-14 157 gpm.
7/11/17	21:00	104.61	1,717	104.36	Pumping rate in well C-14 157 gpm.
7/11/17	22:00	105.06	1,777	104.81	Pumping rate in well C-14 157 gpm.
7/11/17	23:00	105.33	1,837	105.08	Pumping rate in well C-14 157 gpm.
7/12/17	0:00	105.77	1,897	105.52	Pumping rate in well C-14 157 gpm.
7/12/17	1:00	105.97	1,957	105.72	Pumping rate in well C-14 157 gpm.
7/12/17 7/12/17	2:00	106.19 106.66	2,017 2,077	105.94 106.41	Pumping rate in well C-14 157 gpm.
7/12/17	3:00 4:00	106.66	2,077	106.41	Pumping rate in well C-14 157 gpm. Pumping rate in well C-14 157 gpm.
7/12/17	5:00	107.18	2,137	106.93	Pumping rate in well C-14 157 gpm. Pumping rate in well C-14 157 gpm.
7/12/17	6:00	107.73	2,197	107.48	Pumping rate in well C-14 137 gpm. Pumping rate in well C-14 157 gpm.
7/12/17	7:00	107.43	2,317	107.64	Pumping rate in well C-14 157 gpm. Pumping rate in well C-14 157 gpm.
7/12/17	8:00	107.89	2,377	107.89	Pumping rate in well C-14 157 gpm. Pumping rate in well C-14 157 gpm.
7/12/17	9:00	109.08	2,437	108.83	Pumping rate in well C-14 157 gpm. Pumping rate in well C-14 157 gpm.
7/12/17	10:00	109.60	2,497	109.35	Pumping rate in well C-14 157 gpm.
7/12/17	11:00	109.89	2,557	109.64	Pumping rate in well C-14 157 gpm.
					Pump in well C-7B shut down at 11:28 and pump in well C-21
7/12/17	12:00	110.43	2,617	110.18	shut down at 11:56.
7/12/17	13:00	110.43	2,677	110.18	Pumping rate in well C-14 157 gpm.
7/12/17	14:00	111.01	2,737	110.76	Pumping rate in well C-14 157 gpm.
7/12/17	15:00	110.98	2,797	110.73	Pumping rate in well C-14 157 gpm.
7/12/17	16:00	111.72	2,857	111.47	Pumping rate in well C-14 157 gpm.
7/12/17	17:00	111.86	2,917	111.61	Pumping rate in well C-14 157 gpm.
7/12/17	18:00	112.20	2,977	111.95	Pumping rate in well C-14 157 gpm.
7/12/17	19:00	112.31	3,037	112.06	Pumping rate in well C-14 157 gpm.
7/12/17	20:00	112.27	3,097	112.02	Pumping rate in well C-14 157 gpm.
7/12/17	21:00	112.43	3,157	112.18	Pumping rate in well C-14 157 gpm.
7/12/17	22:00	112.72	3,217	112.47	Pumping rate in well C-14 157 gpm.
7/12/17	23:00	112.41	3,277	112.16	Pumping rate in well C-14 157 gpm.
7/13/17	0:00	112.70	3,337	112.45	Pumping rate in well C-14 157 gpm.
7/13/17	1:00	112.60	3,397	112.35	Pumping rate in well C-14 157 gpm.
7/13/17	2:00	112.72	3,457	112.47	Pumping rate in well C-14 157 gpm.
7/13/17	3:00	113.01	3,517	112.76	Pumping rate in well C-14 157 gpm.
7/13/17	3:58	113.22	3,575	112.97	Generator shut down.
7/13/17	4:00	103.07	3,577	102.82	
7/13/17	5:00	74.12	3,637	73.87	
7/13/17	5:24	88.31	3,661	88.06	Generator restarted.
7/13/17	6:00	102.93	3,697	102.68	Pumping rate in well C-14 157 gpm.
7/13/17	7:00	106.13	3,757	105.88	Pumping rate in well C-14 157 gpm.
7/13/17	8:00	107.95	3,817	107.70	Pumping rate in well C-14 157 gpm.
7/13/17 7/13/17	9:00 10:00	109.42 110.31	3,877 3,937	109.17 110.06	Pumping rate in well C-14 157 gpm. Pumping rate in well C-14 157 gpm.
7/13/17	11:00	110.31	3,937	111.26	Pumping rate in well C-14 157 gpm. Pumping rate in well C-14 157 gpm.
7/13/17	12:00	111.51	4,057	111.26	Pumping rate in well C-14 157 gpm. Pumping rate in well C-14 157 gpm.
7/13/17	13:00	112.07	4,117	112.54	Pumping rate in well C-14 137 gpm. Pumping rate in well C-14 157 gpm.
7/13/17	14:00	113.34	4,177	113.09	Pumping rate in well C-14 137 gpm. Pumping rate in well C-14 157 gpm.
//13/1/	17.00	113.34	7,1//	113.07	i umping rate in well C-14 137 gpin.

		Depth to	Elapsed Time	Drawdown	
Date	Time	Water	/Recovery	(feet)	Comments
		(ft btoc)	(minutes)	. ,	
7/13/17	15:00	113.85	4,237	113.60	Pumping rate in well C-14 157 gpm.
7/13/17	16:00	114.00	4,297	113.75	Pumping rate in well C-14 157 gpm.
7/13/17	17:00	114.29	4,357	114.04	Pumping rate in well C-14 157 gpm.
7/13/17	18:00	114.76	4,417	114.51	Pumping rate in well C-14 157 gpm.
7/13/17	19:00	114.87	4,477	114.62	Pumping rate in well C-14 157 gpm.
7/13/17	20:00	115.17	4,537	114.92	Pumping rate in well C-14 157 gpm.
7/13/17 7/13/17	20:02 21:00	114.51 76.71	4,539 4,597	114.26 76.46	Generator shut down.
7/13/17	21:10	89.56	4,607	89.31	Generator restarted.
7/13/17	22:00	106.71	4,657	106.46	Pumping rate in well C-14 157 gpm.
7/13/17	23:00	100.71	4,717	108.85	Pumping rate in well C-14 157 gpm. Pumping rate in well C-14 157 gpm.
7/14/17	0:00	111.33	4,777	111.08	Pumping rate in well C-14 157 gpm.
7/14/17	1:00	111.81	4,837	111.56	Pumping rate in well C-14 157 gpm.
7/14/17	2:00	113.37	4,897	113.12	Pumping rate in well C-14 157 gpm.
7/14/17	3:00	113.38	4,957	113.12	Pumping rate in well C-14 157 gpm.
7/14/17	4:00	114.02	5,017	113.77	Pumping rate in well C-14 157 gpm.
7/14/17	5:00	114.66	5,077	114.41	Pumping rate in well C-14 157 gpm.
7/14/17	6:00	114.97	5,137	114.72	Pumping rate in well C-14 157 gpm.
7/14/17	7:00	115.07	5,197	114.82	Pumping rate in well C-14 157 gpm.
7/14/17	8:00	115.70	5,257	115.45	Pumping rate in well C-14 157 gpm.
7/14/17	9:00	115.63	5,317	115.38	Pumping rate in well C-14 157 gpm.
7/14/17	10:00	116.50	5,377	116.25	Pumping rate in well C-14 157 gpm.
7/14/17	11:00	116.29	5,437	116.04	Pumping rate in well C-14 157 gpm.
7/14/17	12:00	116.45	5,497	116.20	Pumping rate in well C-14 157 gpm.
7/14/17	13:00	116.73	5,557	116.48	Pumping rate in well C-14 157 gpm.
7/14/17	14:00	117.05	5,617	116.80	Pumping rate in well C-14 157 gpm.
7/14/17	15:00	117.48	5,677	117.23	Pumping rate in well C-14 157 gpm.
7/14/17	16:00	117.24	5,737	116.99	Pumping rate in well C-14 157 gpm.
7/14/17	17:00	117.84	5,797	117.59	Pumping rate in well C-14 157 gpm.
7/14/17	18:00	117.77	5,857	117.52	Pumping rate in well C-14 157 gpm.
7/14/17	19:00	118.01	5,917	117.76	Pumping rate in well C-14 157 gpm.
7/14/17	20:00	117.80	5,977	117.55	Pumping rate in well C-14 157 gpm.
7/14/17	21:00	117.78	6,037	117.53	Pumping rate in well C-14 157 gpm.
7/14/17	22:00	118.37	6,097	118.12	Pumping rate in well C-14 157 gpm.
7/14/17 7/15/17	23:00 0:00	118.00 118.34	6,157 6,217	117.75 118.09	Pumping rate in well C-14 157 gpm. Pumping rate in well C-14 157 gpm.
7/15/17	0:33	108.07	6,250	107.82	Generator shut down.
7/15/17	0:53	94.34	6,270	94.09	Generator shut down. Generator restarted.
7/15/17	1:00	106.22	6,277	105.97	Pumping rate in well C-14 157 gpm.
7/15/17	2:00	115.63	6,337	115.38	Pumping rate in well C-14 157 gpm.
7/15/17	3:00	116.30	6,397	116.05	Pumping rate in well C-14 157 gpm.
7/15/17	4:00	117.08	6,457	116.83	Pumping rate in well C-14 157 gpm.
7/15/17	5:00	117.91	6,517	117.66	Pumping rate in well C-14 157 gpm.
7/15/17	6:00	118.10	6,577	117.85	Pumping rate in well C-14 157 gpm.
7/15/17	7:00	118.19	6,637	117.94	Pumping rate in well C-14 157 gpm.
7/15/17	8:00	118.54	6,697	118.29	Pumping rate in well C-14 157 gpm.
7/15/17	9:00	118.82	6,757	118.57	Pumping rate in well C-14 157 gpm.
7/15/17	10:00	118.91	6,817	118.66	Pumping rate in well C-14 157 gpm.
7/15/17	11:00	119.34	6,877	119.09	Pumping rate in well C-14 157 gpm.
7/15/17	12:00	119.69	6,937	119.44	Pumping rate in well C-14 157 gpm.
7/15/17	13:00	119.80	6,997	119.55	Pumping rate in well C-14 157 gpm.
7/15/17	14:00	120.20	7,057	119.95	Pumping rate in well C-14 157 gpm.
7/15/17	15:00	119.96	7,117	119.71	Pumping rate in well C-14 157 gpm.
7/15/17	16:00	120.71	7,177	120.46	Pumping rate in well C-14 157 gpm.

		Depth to	Elapsed Time	Drawdown	
Date	Time	Water	/Recovery	(feet)	Comments
		(ft btoc)	(minutes)	(leet)	
7/15/17	17:00	120.43	7,237	120.18	Pumping rate in well C-14 157 gpm.
7/15/17	18:00	120.68	7,297	120.43	Pumping rate in well C-14 157 gpm.
7/15/17	19:00	121.01	7,357	120.76	Pumping rate in well C-14 157 gpm.
7/15/17	19:08	121.06	7,365	120.81	Pumping rate in well C-14 157 gpm.
7/15/17	20:00	121.27	7,417	121.02	Pumping rate in well C-14 157 gpm.
7/15/17	21:00	120.95	7,477	120.70	Pumping rate in well C-14 157 gpm.
7/15/17	22:00	121.29	7,537	121.04	Pumping rate in well C-14 157 gpm.
7/15/17	23:00	121.45	7,597	121.20	Pumping rate in well C-14 157 gpm.
7/16/17	0:00	121.51	7,657	121.26	Pumping rate in well C-14 157 gpm.
7/16/17	1:00	121.50	7,717	121.25	Pumping rate in well C-14 157 gpm.
7/16/17	1:08	121.67	7,725	121.42	Pumping rate in well C-14 157 gpm.
7/16/17	1:09	110.24	-1	109.99	Pump in well C-14 shut down. Shut down of simultaneous pumping test (wells C-6, 12, 14, 16, and 23).
7/16/17	1:10	107.57	-2	107.32	1 1 5 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
7/16/17	1:11	106.06	-3	105.81	
7/16/17	1:12	104.70	-4	104.45	
7/16/17	1:13	103.52	-5	103.27	
7/16/17	1:14	102.45	-6	102.20	
7/16/17	1:15	101.23	-7	100.98	
7/16/17	1:16	100.19	-8	99.94	
7/16/17	1:17	99.13	-9	98.88	
7/16/17	1:18	98.28	-10	98.03	
7/16/17	1:19	97.42	-11	97.17	
7/16/17	1:20	96.66	-12	96.41	
7/16/17	1:21	95.99	-13	95.74	
7/16/17	1:22	95.44	-14	95.19	
7/16/17	1:23	94.76	-15	94.51	
7/16/17	1:24	94.11	-16	93.86	
7/16/17	1:25	93.62	-17	93.37	
7/16/17	1:30	91.53	-22	91.28	
7/16/17	1:35	89.79	-27	89.54	
7/16/17	1:40	88.25	-32	88.00	
7/16/17	1:45	87.05	-37	86.80	
7/16/17	1:50	86.08	-42	85.83	
7/16/17	1:55	85.27	-47	85.02	
7/16/17	2:00	84.44	-52	84.19	
7/16/17	2:05	83.70	-57	83.45	
7/16/17	2:10	83.03	-62	82.78	
7/16/17	3:00	78.37	-112	78.12	
7/16/17	4:00	74.02	-172	73.77	
7/16/17	5:00	70.51	-232	70.26	
7/16/17	6:00	67.54	-292	67.29	
7/16/17	7:00	65.12	-352	64.87	
7/16/17	8:00	62.75	-412	62.50	
7/16/17	9:00	60.68	-472	60.43	
7/16/17	10:00	58.78	-532	58.53	
7/16/17	11:00	56.86	-592	56.61	
7/16/17	12:00	55.08	-652	54.83	
7/16/17	13:00	53.47	-712	53.22	
7/16/17	14:00	51.90	-772	51.65	
7/16/17	15:00	50.41	-832	50.16	
7/16/17	16:00	48.92			
7/16/17	17:00		-892 -952	48.67 47.22	
		47.47			
7/16/17	18:00	46.09	-1,012	45.84	

		Depth to	Elapsed Time	Drawdown	
Date	Time	Water	/Recovery	(feet)	Comments
		(ft btoc)	(minutes)	(leet)	
7/16/17	19:00	44.73	-1,072	44.48	
7/16/17	20:00	43.48	-1,132	43.23	
7/16/17	21:00	42.21	-1,192	41.96	
7/16/17	22:00	40.95	-1,252	40.70	
7/16/17	23:00	39.74	-1,312	39.49	
7/17/17	0:00	38.51	-1,372	38.26	
7/17/17	1:00	37.40	-1,432	37.15	
7/17/17	2:00	36.29	-1,492	36.04	
7/17/17	3:00	35.22	-1,552	34.97	
7/17/17	4:00	34.19	-1,612	33.94	
7/17/17	5:00	33.22	-1,672	32.97	
7/17/17	6:00	32.24	-1,732	31.99	
7/17/17	7:00	31.26	-1,792	31.01	
7/17/17	8:00	30.33	-1,852	30.08	
7/17/17	9:00	29.45	-1,912	29.20	
7/17/17	10:00	28.63	-1,972	28.38	
7/17/17	11:00	27.82	-2,032	27.57	
7/17/17	12:00	26.99	-2,092	26.74	
7/17/17	13:00	26.18	-2,152	25.93	
7/17/17	14:00	25.48	-2,212	25.23	
7/17/17	15:00	24.76	-2,272	24.51	
7/17/17	16:00	24.05	-2,332	23.80	
7/17/17	17:00	23.38	-2,392	23.13 22.42	
	18:00 19:00	22.67	-2,452		
7/17/17	20:00	22.05 21.38	-2,512 -2,572	21.80 21.13	
7/17/17	21:00	20.72	-2,632	20.47	
7/17/17	22:00	20.72	-2,692	19.87	
7/17/17	23:00	19.52	-2,752	19.27	
7/18/17	0:00	19.01	-2,812	18.76	
7/18/17	1:00	18.48	-2,872	18.23	
7/18/17	2:00	17.95	-2,932	17.70	
7/18/17	3:00	17.46	-2,992	17.21	
7/18/17	4:00	16.96	-3,052	16.71	
7/18/17	5:00	16.47	-3,112	16.22	
7/18/17	6:00	15.98	-3,172	15.73	
7/18/17	7:00	15.55	-3,232	15.30	
7/18/17	8:00	15.09	-3,292	14.84	
7/18/17	9:00	14.66	-3,352	14.41	
7/18/17	10:00	14.26	-3,412	14.01	
7/18/17	11:00	13.86	-3,472	13.61	
7/18/17	12:00	13.36	-3,532	13.11	
7/18/17	13:00	13.04	-3,592	12.79	
7/18/17	14:00	12.73	-3,652	12.48	
7/18/17	15:00	12.37	-3,712	12.12	90% recovery achieved.
7/18/17	16:00	12.04	-3,772	11.79	
7/18/17	17:00	11.66	-3,832	11.41	
7/18/17	18:00	11.34	-3,892	11.09	
7/18/17	19:00	11.06	-3,952	10.81	
7/18/17	20:00	10.74	-4,012 4,072	10.49	
7/18/17	21:00	10.48 10.15	-4,072 4 132	10.23 9.90	
7/18/17	22:00	9.87	-4,132 4,192	9.90	
	23:00 0:00	9.87	-4,192 4,252	9.62	
7/19/17	0:00	9.00	-4,252	9.33	

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		Depth to	Elapsed Time	Drawdown	
Date	Time	Water	/Recovery	(feet)	Comments
		(ft btoc)	(minutes)	(leet)	
7/19/17	1:00	9.42	-4,312	9.17	
7/19/17	2:00	9.10	-4,372	8.85	
7/19/17	3:00	8.84	-4,432	8.59	
7/19/17	4:00	8.64	-4,492	8.39	
7/19/17	5:00	8.42	-4,552	8.17	
7/19/17	6:00	8.20	-4,612	7.95	
7/19/17	7:00	8.01	-4,672	7.76	
7/19/17	8:00	7.71	-4,732	7.46	
7/19/17	9:00	7.58	-4,792	7.33	
7/19/17	10:00	7.38	-4,852	7.13	
7/19/17	11:00	7.22	-4,912	6.97	
7/19/17	12:00	6.99	-4,972	6.74	
7/19/17	13:00	6.80	-5,032	6.55	
7/19/17	14:00	6.72	-5,092	6.47	
7/19/17	15:00	6.54	-5,152	6.29	
7/19/17	16:00	6.35	-5,212 5,272	6.10	
7/19/17	17:00	6.22	-5,272 5,222	5.97	
7/19/17	18:00	6.04	-5,332 5,302	5.79	
7/19/17	19:00	5.84	-5,392 5.452	5.59	
	20:00	5.75	-5,452	5.50	
7/19/17 7/19/17	21:00 22:00	5.52 5.43	-5,512 -5,572	5.27 5.18	
7/19/17	23:00	5.24	-5,632	4.99	
7/20/17	0:00	5.10	-5,692	4.85	
7/20/17	1:00	4.94	-5,752	4.69	
7/20/17	2:00	4.81	-5,812	4.56	
7/20/17	3:00	4.68	-5,812	4.43	
7/20/17	4:00	4.56	-5,932	4.31	
7/20/17	5:00	4.44	-5,992	4.19	
7/20/17	6:00	4.36	-6,052	4.11	
7/20/17	7:00	4.26	-6,112	4.01	
7/20/17	8:00	4.15	-6,172	3.90	
7/20/17	9:00	4.05	-6,232	3.80	
7/20/17	10:00	3.99	-6,292	3.74	
7/20/17	11:00	3.84	-6,352	3.59	
7/20/17	12:00	3.72	-6,412	3.47	
7/20/17	13:00	3.63	-6,472	3.38	
7/20/17	14:00	3.56	-6,532	3.31	
7/20/17	15:00	3.41	-6,592	3.16	
7/20/17	16:00	3.31	-6,652	3.06	
7/20/17	17:00	3.21	-6,712	2.96	
7/20/17	18:00	3.14	-6,772	2.89	
7/20/17	19:00	3.00	-6,832	2.75	
7/20/17	20:00	2.95	-6,892	2.70	
7/20/17	21:00	2.84	-6,952	2.59	
7/20/17	22:00	2.73	-7,012	2.48	
7/20/17	23:00	2.63	-7,072	2.38	
7/21/17	0:00	2.52	-7,132	2.27	
7/21/17	1:00	2.49	-7,192	2.24	
7/21/17	2:00	2.35	-7,252	2.10	
7/21/17	3:00	2.26	-7,312	2.01	
7/21/17	4:00	2.18	-7,372	1.93	
7/21/17	5:00	2.19	-7,432	1.94	
7/21/17	6:00	2.13	-7,492	1.88	

		Depth to	Elapsed Time	Drawdown	
Date	Time	Water	/Recovery	(feet)	Comments
		(ft btoc)	(minutes)	` /	
7/21/17	7:00	2.01	-7,552	1.76	
7/21/17	8:00	1.98	-7,612	1.73	
7/21/17	9:00	1.91	-7,672	1.66	
7/21/17	10:00	1.88	-7,732	1.63	
7/21/17	11:00	1.83	-7,792	1.58	
7/21/17	12:00	1.75	-7,852	1.50	
7/21/17 7/21/17	13:00 14:00	1.70 1.66	-7,912 -7,972	1.45 1.41	
7/21/17	15:00	1.54	-8,032	1.29	
7/21/17	16:00	1.41	-8,092	1.16	
7/21/17	17:00	1.38	-8,152	1.13	
7/21/17	18:00	1.35	-8,212	1.10	
7/21/17	19:00	1.28	-8,272	1.03	
7/21/17	20:00	1.26	-8,332	1.01	
7/21/17	21:00	1.20	-8,392	0.95	
7/21/17	22:00	1.17	-8,452	0.92	
7/21/17	23:00	1.11	-8,512	0.86	
7/22/17	0:00	1.09	-8,572	0.84	
7/22/17	1:00	1.09	-8,632	0.84	
7/22/17	2:00	1.05	-8,692	0.80	
7/22/17	3:00	1.05	-8,752	0.80	
7/22/17	4:00	1.08	-8,812	0.83	
7/22/17	5:00	1.08	-8,872	0.83	
7/22/17	6:00	1.05	-8,932	0.80	
7/22/17	7:00	1.02	-8,992	0.77	
7/22/17	8:00	1.02	-9,052	0.77	
7/22/17	9:00	1.04	-9,112	0.79	
7/22/17	10:00	1.05	-9,172	0.80	
7/22/17	11:00	1.04	-9,232	0.79	
7/22/17	12:00	1.05	-9,292	0.80	
7/22/17 7/22/17	13:00	1.05	-9,352	0.80	
7/22/17	14:00 15:00	1.04 1.11	-9,412 -9,472	0.79 0.86	
7/22/17	16:00	1.11	-9,532	0.87	
7/22/17	17:00	1.13	-9,592	0.88	
7/22/17	18:00	1.13	-9,652	0.89	
7/22/17	19:00	1.11	-9,712	0.86	
7/22/17	20:00	1.15	-9,772	0.90	
7/22/17	21:00	1.14	-9,832	0.89	
7/22/17	22:00	1.14	-9,892	0.89	
7/22/17	23:00	1.10	-9,952	0.85	
7/23/17	0:00	1.16	-10,012	0.91	
7/23/17	1:00	1.16	-10,072	0.91	
7/23/17	2:00	1.17	-10,132	0.92	
7/23/17	3:00	1.16	-10,192	0.91	
7/23/17	4:00	1.16	-10,252	0.91	
7/23/17	5:00	1.13	-10,312	0.88	
7/23/17	6:00	1.16	-10,372	0.91	
7/23/17	7:00	1.12	-10,432	0.87	
7/23/17	8:00	1.11	-10,492	0.86	
7/23/17	9:00	1.11	-10,552	0.86	
7/23/17	10:00	1.14	-10,612	0.89	
7/23/17	11:00	1.10	-10,672	0.85	
7/23/17	12:00	1.10	-10,732	0.85	

Date Lime Water (R bioo) Recovery (Inlinuites) (Feet) Comments			Depth to	Elapsed Time	Drawdown	
	Date	Time	Water	/Recovery		Comments
172317 14:00 1.05					. ,	
172317 15:00 1.08						
172317 16:00 1.06						
1723/17 17:00 1.10						
1723/17 18:00 1.07						
1723/17 19-00 1.01 -11.152 0.76						
1723117 20:00 1.05						
1723/17 21:00 1.08						
1723/17 22:00 1.03 -11.332 0.78 7/23/17 23:00 1.04 -11.392 0.79 7/24/17 0:00 1.02 -11.452 0.77 7/24/17 1:00 1.02 -11.452 0.77 7/24/17 2:00 1.05 -11.572 0.80 7/24/17 3:00 1.03 -11.632 0.78 7/24/17 3:00 1.03 -11.632 0.78 7/24/17 4:00 1.08 -11.752 0.83 7/24/17 4:00 1.08 -11.752 0.83 7/24/17 5:00 1.08 -11.752 0.83 7/24/17 5:00 1.06 -11.812 0.80 7/24/17 7:00 1.06 -11.872 0.81 7/24/17 7:00 1.06 -11.872 0.81 7/24/17 9:00 1.00 -11.932 0.85 7/24/17 9:00 1.00 -11.992 0.84 7/24/17 10:00 1.07 -12.052 0.82 7/24/17 11:00 1.06 -12.112 0.81 7/24/17 12:00 1.01 -12.172 0.76 7/24/17 13:00 1.05 -12.232 0.80 7/24/17 13:00 1.05 -12.232 0.80 7/24/17 13:00 0.98 -12.292 0.73 7/24/17 15:00 0.98 -12.412 0.72 7/24/17 15:00 0.99 -12.412 0.72 7/24/17 15:00 0.99 -12.412 0.72 7/24/17 15:00 0.99 -12.4232 0.73 7/24/17 15:00 0.99 -12.532 0.77 7/24/17 15:00 0.99 -12.532 0.77 7/24/17 15:00 0.99 -12.532 0.79 7/24/17 15:00 0.99 -12.4272 0.73 7/24/17 17:00 0.99 -12.4272 0.73 7/24/17 17:00 0.99 -12.432 0.69 7/24/17 17:00 0.99 -12.432 0.69 7/24/17 17:00 0.99 -12.432 0.69 7/24/17 17:00 0.98 -12.472 0.69 7/24/17 17:00 0.98 -12.472 0.69 7/24/17 17:00 0.88 -13.012 0.60 7/25/17 0.00 0.88 -13.012 0.60 7/25/17 0.00 0.88 -13.012 0.60 7/25/17 0.00 0.88 -13.012 0.60 7/25/17 10:00 0.88 -13.312 0.51 7/25/17 10:00 0.70 -13.432 0.52 7/25/17 10:00 0.70 -13.432 0.54 7/25/17 10:00 0.70 -13.432 0.54 7/25/17 10:00 0.66 -13.612 0.41 0.44 7/25/17 11:00 0.70 -13.432 0.45 7/25/17 11:00 0.66 -13.612 0.41 0.44 7/25/17 11:00 0						
1723.17 23:00 1.04 -11.392 0.79 7724.17 0:00 1.02 -11.452 0.77 7724.17 1:00 1.02 -11.512 0.77 7724.17 1:00 1.03 -11.572 0.80 7724.17 3:00 1.03 -11.632 0.78 7724.17 5:00 1.08 -11.572 0.80 7724.17 5:00 1.08 -11.692 0.83 7724.17 5:00 1.08 -11.812 0.80 7724.17 7:00 1.06 -11.872 0.81 7724.17 7:00 1.06 -11.872 0.81 7724.17 7:00 1.06 -11.872 0.81 7724.17 7:00 1.06 -11.872 0.81 7724.17 7:00 1.06 -11.872 0.81 7724.17 9:00 1.07 -12.052 0.82 7724.17 1:00 1.07 -12.052 0.82 7724.17 1:00 1.06 -12.112 0.81 7724.17 1:00 1.05 -12.232 0.80 7724.17 1:300 1.05 -12.232 0.80 7724.17 1:300 0.98 -12.292 0.73 7724.17 1:500 0.99 -12.412 0.72 7724.17 1:500 0.99 -12.452 0.72 7724.17 1:500 0.99 -12.452 0.72 7724.17 1:500 0.99 -12.452 0.72 7724.17 1:500 0.99 -12.452 0.72 7724.17 1:500 0.99 -12.452 0.73 7724.17 1:500 0.99 -12.452 0.73 7724.17 1:500 0.99 -12.452 0.73 7724.17 1:500 0.99 -12.452 0.73 7724.17 1:500 0.99 -12.452 0.73 7724.17 1:500 0.99 -12.452 0.73 7724.17 1:500 0.99 -12.452 0.73 7724.17 1:500 0.99 -12.452 0.70 7724.17 1:00 0.88 -12.952 0.67 7724.17 1:00 0.88 -12.952 0.67 7724.17 1:00 0.88 -12.952 0.66 7725.17 0:00 0.94 -12.772 0.69 7725.17 0:00 0.88 -13.072 0.69 7725.17 1:00 0.88 -13.072 0.69 7725.17 1:00 0.88 -13.072 0.69 7725.17 1:00 0.88 -13.072 0.69 7725.17 1:00 0.88 -13.072 0.69 7725.17 1:00 0.70 -13.372 0.54 7725.17 1:00 0.70 -13.312 0.51 7725.17 1:00 0.70 -13.312 0.51 7725.17 1:00 0.66 -13.612 0.41 Pump in well C-21 started at 11:44 7725.17 1:00 0.66 -13.612 0.44 Pump in well C-						
1724/17 1:00 1.02 -11,452 0.77 1724/17 1:00 1.02 -11,512 0.77 1724/17 2:00 1.05 -11,572 0.80 1724/17 3:00 1.03 -11,632 0.78 1724/17 4:00 1.08 -11,632 0.78 1724/17 5:00 1.08 -11,632 0.83 1724/17 5:00 1.08 -11,512 0.83 1724/17 5:00 1.05 -11,812 0.80 1724/17 5:00 1.05 -11,812 0.80 1724/17 7:00 1.06 -11,872 0.81 1724/17 7:00 1.06 -11,872 0.81 1724/17 7:00 1.06 -11,872 0.81 1724/17 9:00 1.09 -11,932 0.85 1724/17 10:00 1.07 -12,052 0.82 1724/17 12:00 1.07 -12,052 0.82 1724/17 12:00 1.01 -12,172 0.76 1724/17 12:00 1.01 -12,172 0.76 1724/17 13:00 1.05 -12,232 0.80 1724/17 13:00 1.05 -12,232 0.80 1724/17 13:00 1.05 -12,232 0.80 1724/17 13:00 1.02 -12,352 0.77 1724/17 13:00 0.98 -12,292 0.73 1724/17 13:00 0.99 -12,412 0.72 1724/17 13:00 0.99 -12,412 0.72 1724/17 13:00 0.99 -12,412 0.72 1724/17 13:00 0.99 -12,412 0.72 1724/17 13:00 0.99 -12,412 0.72 1724/17 13:00 0.99 -12,532 0.77 1724/17 13:00 0.99 -12,532 0.77 1724/17 13:00 0.99 -12,532 0.70 1724/17 13:00 0.99 -12,532 0.70 1724/17 13:00 0.99 -12,532 0.70 1724/17 13:00 0.99 -12,532 0.70 1724/17 13:00 0.99 -12,532 0.65 1725/17 0.00 0.84 -12,892 0.59 1725/17 0.00 0.84 -12,892 0.59 1725/17 0.00 0.88 -13,012 0.60 1725/17 0.60 0.88 -13,012 0.60 1725/17 0.00 0.88 -13,012 0.60 1725/17 0.00 0.88 -13,012 0.60 1725/17 0.00 0.89 -13,492 0.55 1725/17 0.00 0.89 -13,492 0.55 1725/17 0.00 0.89 -13,492 0.59 1725/17 0.00 0.80 -13,192 0.55 1725/17 1.00 0.80 -13,192 0.55 1725/17 1.00 0.70 0.75 13,552 0.45 0.45 0.46 0.46 1.36/17 0.46 0.66 13,592 0.46 1.3732 0.46 1.3732						
$\begin{array}{rcrcrcl} 7/24/17 & 1:00 & 1.02 & -11.512 & 0.77 \\ 7/24/17 & 2:00 & 1.05 & -11.572 & 0.80 \\ 7/24/17 & 3:00 & 1.03 & -11.632 & 0.78 \\ 7/24/17 & 4:00 & 1.08 & -11.692 & 0.83 \\ 7/24/17 & 5:00 & 1.08 & -11.752 & 0.80 \\ 7/24/17 & 5:00 & 1.08 & -11.752 & 0.83 \\ 7/24/17 & 5:00 & 1.06 & -11.812 & 0.80 \\ 7/24/17 & 7:00 & 1.06 & -11.872 & 0.81 \\ 7/24/17 & 8:00 & 1.10 & -11.932 & 0.85 \\ 7/24/17 & 9:00 & 1.09 & -11.992 & 0.84 \\ 7/24/17 & 10:00 & 1.07 & -12.052 & 0.82 \\ 7/24/17 & 10:00 & 1.07 & -12.052 & 0.82 \\ 7/24/17 & 10:00 & 1.07 & -12.052 & 0.82 \\ 7/24/17 & 10:00 & 1.05 & -12.112 & 0.81 \\ 7/24/17 & 10:00 & 1.05 & -12.122 & 0.80 \\ 7/24/17 & 10:00 & 1.05 & -12.232 & 0.80 \\ 7/24/17 & 10:00 & 0.98 & -12.292 & 0.73 \\ 7/24/17 & 10:00 & 0.98 & -12.292 & 0.73 \\ 7/24/17 & 10:00 & 0.98 & -12.292 & 0.73 \\ 7/24/17 & 10:00 & 0.99 & -12.352 & 0.77 \\ 7/24/17 & 10:00 & 0.99 & -12.532 & 0.77 \\ 7/24/17 & 10:00 & 0.99 & -12.592 & 0.67 \\ 7/24/17 & 10:00 & 0.99 & -12.592 & 0.67 \\ 7/24/17 & 10:00 & 0.99 & -12.592 & 0.67 \\ 7/24/17 & 10:00 & 0.94 & -12.772 & 0.69 \\ 7/24/17 & 20:00 & 0.94 & -12.772 & 0.69 \\ 7/24/17 & 20:00 & 0.94 & -12.772 & 0.69 \\ 7/25/17 & 20:00 & 0.84 & -12.892 & 0.59 \\ 7/25/17 & 20:00 & 0.85 & -13.012 & 0.60 \\ 7/25/17 & 20:00 & 0.85 & -13.012 & 0.60 \\ 7/25/17 & 20:00 & 0.85 & -13.012 & 0.60 \\ 7/25/17 & 20:00 & 0.85 & -13.012 & 0.60 \\ 7/25/17 & 20:00 & 0.80 & -13.132 & 0.58 \\ 7/25/17 & 20:00 & 0.80 & -13.132 & 0.58 \\ 7/25/17 & 20:00 & 0.80 & -13.312 & 0.51 \\ 7/25/17 & 20:00 & 0.80 & -13.312 & 0.51 \\ 7/25/17 & 20:00 & 0.80 & -13.312 & 0.51 \\ 7/25/17 & 10:00 & 0.70 & -13.332 & 0.54 \\ 7/25/17 & 10:00 & 0.70 & -73.332 & 0.43 \\ 7/25/17 & 10:00 & 0.66 & -13.612 & 0.44 \\ 7/25/17 & 10:00 & 0.66 & -13.612 & 0.44 \\ 7/25/17 & 10:00 & 0.66 & -13.612 & 0.44 \\ 7/25/17 & 10:00 & 0.66 & -13.612 & 0.44 \\ 7/25/17 & 10:00 & 0.66 & -13.612 & 0.44 \\ 7/25/17 & 10:00 & 0.66 & -13.612 & 0.44 \\ 7/25/17 & 10:00 & 0.66 & -13.612 & 0.44 \\ 7/25/17 & 10:00 & 0.66 & -13.612 & 0.44 \\ 7/25/17 & 10:00 & 0.66 & -13.612 & 0.44 \\ 7/25/17 & 10:00 & 0.66 & -1$						
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7/24/17 16:00 0.97 -12,412 0.72 7/24/17 17:00 0.98 -12,472 0.73 7/24/17 18:00 0.97 -12,532 0.72 7/24/17 19:00 0.92 -12,592 0.67 7/24/17 20:00 0.95 -12,652 0.70 7/24/17 21:00 0.94 -12,712 0.69 7/24/17 23:00 0.99 -12,832 0.65 7/25/17 0:00 0.84 -12,892 0.59 7/25/17 0:00 0.84 -12,892 0.59 7/25/17 0:00 0.88 -12,952 0.63 7/25/17 2:00 0.85 -13,012 0.60 7/25/17 3:00 0.87 -13,072 0.62 7/25/17 5:00 0.83 -13,192 0.55 7/25/17 6:00 0.83 -13,312 0.58 7/25/17 7:00 0.76 -13,312 0.51	7/24/17				0.73	
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7/25/17 16:00 0.67 -13,852 0.42						
	7/25/17	17:00	0.66	-13,912	0.41	
7/25/17 18:00 0.65 -13,972 0.40						

Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
7/25/17	19:00	0.64	-14,032	0.39	
7/25/17	20:00	0.62	-14,092	0.37	
7/25/17	21:00	0.66	-14,152	0.41	
7/25/17	22:00	0.57	-14,212	0.32	
7/25/17	23:00	0.60	-14,272	0.35	
7/26/17	0:00	0.59	-14,332	0.34	
7/26/17	1:00	0.59	-14,392	0.34	
7/26/17	2:00	0.59	-14,452	0.34	
7/26/17	3:00	0.48	-14,512	0.23	
7/26/17	4:00	0.58	-14,572	0.33	
7/26/17	5:00	0.53	-14,632	0.28	
7/26/17	6:00	0.54	-14,692	0.29	
7/26/17 7/26/17	7:00 8:00	0.53 0.50	-14,752 -14,812	0.28 0.25	
7/26/17	9:00	0.54	-14,812	0.23	
7/26/17	10:00	0.34	-14,872 -14,932	0.29	
7/26/17	11:00	0.47	-14,992	0.22	
7/26/17	12:00	0.58	-15,052	0.33	
7/26/17	13:00	0.63	-15,112	0.38	
7/26/17	14:00	0.58	-15,172	0.33	
7/26/17	15:00	0.61	-15,232	0.36	
7/26/17	16:00	0.60	-15,292	0.35	
7/26/17	17:00	0.64	-15,352	0.39	
7/26/17	18:00	0.63	-15,412	0.38	
7/26/17	19:00	0.60	-15,472	0.35	
7/26/17	20:00	0.62	-15,532	0.37	
7/26/17	21:00	0.66	-15,592	0.41	
7/26/17	22:00	0.71	-15,652	0.46	
7/26/17	23:00	0.74	-15,712	0.49	
7/27/17	0:00	0.76	-15,772	0.51	
7/27/17	1:00	0.78	-15,832	0.53	
7/27/17	2:00	0.80	-15,892	0.55	
7/27/17	3:00	0.80	-15,952	0.55	
7/27/17 7/27/17	4:00 5:00	0.86 0.87	-16,012 -16,072	0.61 0.62	
7/27/17	6:00	0.87	-16,072	0.62	
7/27/17	7:00	0.86	-16,192	0.61	
7/27/17	8:00	0.89	-16,252	0.64	
7/27/17	9:00	0.79	-16,312	0.54	
7/27/17	10:00	0.91	-16,372	0.66	
7/27/17	11:00	0.91	-16,432	0.66	
7/27/17	12:00	0.89	-16,492	0.64	
7/27/17	13:00	0.94	-16,552	0.69	
7/27/17	14:00	0.98	-16,612	0.73	
7/27/17	15:00	1.00	-16,672	0.75	
7/27/17	16:00	0.85	-16,732	0.60	
7/27/17	17:00	0.97	-16,792	0.72	
7/27/17	18:00	1.04	-16,852	0.79	
7/27/17	19:00	1.03	-16,912	0.78	
7/27/17	20:00	1.00	-16,972	0.75	
7/27/17	21:00	1.01	-17,032	0.76	
7/27/17	22:00	1.04	-17,092	0.79	
7/27/17	23:00	1.01	-17,152	0.76	
7/28/17	0:00	1.03	-17,212	0.78	

		Depth to	Elapsed Time	Drawdown	
Date	Time	Water	/Recovery	(feet)	Comments
		(ft btoc)	(minutes)	(leet)	
7/28/17	1:00	1.04	-17,272	0.79	
7/28/17	2:00	1.04	-17,332	0.79	
7/28/17	3:00	1.05	-17,392	0.80	
7/28/17	4:00	1.06	-17,452	0.81	
7/28/17	5:00	1.04	-17,512	0.79	
7/28/17	6:00	1.01	-17,572	0.76	
7/28/17	7:00	1.02	-17,632	0.77	
7/28/17	8:00	1.01	-17,692	0.76	
7/28/17	9:00	1.04	-17,752	0.79	
7/28/17	10:00	1.02	-17,812	0.77	
7/28/17	11:00	1.00	-17,872	0.75	P 11 C 21 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
7/28/17	12:00	1.05	-17,932	0.80	Pump in well C-21 shut down at 12:15.
7/28/17	13:00	1.01	-17,992	0.76	
7/28/17	14:00	1.05	-18,052	0.80	
7/28/17 7/28/17	15:00 16:00	1.04 0.97	-18,112 -18,172	0.79 0.72	
7/28/17	17:00	1.09	-18,1/2 -18,232	0.72	
7/28/17	18:00	1.09	-18,232 -18,292	0.86	
7/28/17	19:00	1.11	-18,352	0.83	
7/28/17	20:00	1.08	-18,412	0.83	
7/28/17	21:00	1.04	-18,472	0.83	
7/28/17	22:00	1.01	-18,532	0.76	
7/28/17	23:00	1.04	-18,592	0.79	
7/29/17	0:00	1.07	-18,652	0.82	
7/29/17	1:00	1.07	-18,712	0.82	
7/29/17	2:00	1.09	-18,772	0.84	
7/29/17	3:00	1.10	-18,832	0.85	
7/29/17	4:00	1.08	-18,892	0.83	
7/29/17	5:00	1.10	-18,952	0.85	
7/29/17	6:00	1.01	-19,012	0.76	
7/29/17	7:00	1.08	-19,072	0.83	
7/29/17	8:00	1.02	-19,132	0.77	
7/29/17	9:00	1.03	-19,192	0.78	
7/29/17	10:00	1.03	-19,252	0.78	
7/29/17	11:00	1.02	-19,312	0.77	
7/29/17	12:00	1.03	-19,372	0.78	
7/29/17	13:00	1.05	-19,432	0.80	
7/29/17	14:00	1.05	-19,492	0.80	
7/29/17	15:00	1.08	-19,552	0.83	
7/29/17	16:00	1.08	-19,612	0.83	
7/29/17	17:00	1.01	-19,672	0.76	
7/29/17	18:00	1.01	-19,732	0.76	
7/29/17	19:00	1.01	-19,792	0.76	
7/29/17	20:00	0.97	-19,852	0.72	
7/29/17	21:00	0.98	-19,912	0.73	
7/29/17	22:00	0.99	-19,972	0.74	
7/29/17	23:00	0.99	-20,032	0.74	
7/30/17	0:00	0.96	-20,092	0.71	
7/30/17	1:00	0.97	-20,152	0.72	
7/30/17	2:00	0.93	-20,212	0.68	
7/30/17	3:00	0.95	-20,272	0.70	
	4:00	0.95	-20,332	0.70	
7/30/17	5:00	0.96	-20,392	0.71	
7/30/17	6:00	0.89	-20,452	0.64	

		Depth to	Elapsed Time	Drawdown	
Date	Time	Water	/Recovery	(feet)	Comments
7/30/17	7:00	(ft btoc) 0.89	(minutes) -20,512	0.64	
7/30/17	8:00	0.89	-20,572	0.63	
7/30/17	9:00	0.90	-20,632	0.65	
7/30/17	10:00	0.87	-20,692	0.62	
7/30/17	11:00	0.83	-20,752	0.58	
7/30/17	12:00	0.85	-20,812	0.60	
7/30/17	13:00	0.83	-20,872	0.58	
7/30/17	14:00	0.80	-20,932	0.55	
7/30/17	15:00	0.83	-20,992	0.58	
7/30/17	16:00	0.87	-21,052	0.62	
7/30/17	17:00	0.88	-21,112	0.63	
7/30/17	18:00	0.86	-21,172	0.61	
7/30/17	19:00	0.82	-21,232	0.57	
7/30/17	20:00	0.82	-21,292	0.57	
7/30/17	21:00	0.83	-21,352	0.58	
7/30/17	22:00	0.81	-21,412	0.56	
7/30/17	23:00	0.81	-21,472	0.56	
7/31/17 7/31/17	0:00 1:00	0.76 0.81	-21,532 -21,592	0.51 0.56	
7/31/17					
7/31/17	2:00 3:00	0.86 0.80	-21,652 -21,712	0.61 0.55	
7/31/17	4:00	0.83	-21,772	0.58	
7/31/17	5:00	0.83	-21,772	0.56	
7/31/17	6:00	0.83	-21,892	0.58	
7/31/17	7:00	0.80	-21,952	0.55	
7/31/17	8:00	0.83	-22,012	0.58	
7/31/17	9:00	0.79	-22,072	0.54	
7/31/17	10:00	0.81	-22,132	0.56	
7/31/17	11:00	0.77	-22,192	0.52	
7/31/17	12:00	0.79	-22,252	0.54	
7/31/17	13:00	0.83	-22,312	0.58	
7/31/17	14:00	0.81	-22,372	0.56	
7/31/17	15:00	0.85	-22,432	0.60	
7/31/17	16:00	0.92	-22,492	0.67	
7/31/17	17:00	0.87	-22,552	0.62	
7/31/17	18:00	0.83	-22,612	0.58	
7/31/17 7/31/17	19:00 20:00	0.91 0.84	-22,672 -22,732	0.66 0.59	
7/31/17	21:00	0.84	-22,792	0.63	
7/31/17	22:00	0.84	-22,792	0.59	
8/1/17	23:00	0.79	-24,352	0.54	
8/1/17	0:00	0.84	-22,972	0.59	
8/1/17	1:00	0.83	-23,032	0.58	
8/1/17	2:00	0.82	-23,092	0.57	
8/1/17	3:00	0.81	-23,152	0.56	
8/1/17	4:00	0.86	-23,212	0.61	
8/1/17	5:00	0.86	-23,272	0.61	
8/1/17	6:00	0.84	-23,332	0.59	
8/1/17	7:00	0.84	-23,392	0.59	
8/1/17	8:00	0.83	-23,452	0.58	
8/1/17	9:00	0.82	-23,512	0.57	
8/1/17	10:00	0.82	-23,572	0.57	
8/1/17	11:00	0.78	-23,632	0.53	
8/1/17	12:00	0.79	-23,692	0.54	

		Depth to	Elapsed Time	Drawdown	
Date	Time	Water	/Recovery	(feet)	Comments
		(ft btoc)	(minutes)	(leet)	
8/1/17	13:00	0.83	-23,752	0.58	
8/1/17	14:00	0.86	-23,812	0.61	
8/1/17	15:00	0.84	-23,872	0.59	
8/1/17	16:00	0.82	-23,932	0.57	
8/1/17	17:00	0.84	-23,992	0.59	
8/1/17	18:00	0.82	-24,052	0.57	
8/1/17	19:00	0.84	-24,112	0.59	
8/1/17	20:00	0.85	-24,172	0.60	
8/1/17	21:00	0.84	-24,232	0.59	
8/1/17	22:00	0.80	-24,292	0.55	
8/1/17	23:00	0.79	-24,352	0.54	
8/2/17	0:00	0.82	-24,412	0.57	
8/2/17	1:00	0.83	-24,472	0.58	
8/2/17	2:00	0.81	-24,532	0.56	
8/2/17	3:00	0.81	-24,592	0.56	
8/2/17	4:00	0.81	-24,652	0.56	
8/2/17	5:00	0.82	-24,712	0.57	
8/2/17	6:00	0.84	-24,772	0.59	
8/2/17	7:00	0.80	-24,832	0.55	
8/2/17	8:00	0.79	-24,892	0.54	
8/2/17	9:00	0.79	-24,952	0.54 0.57	
8/2/17	10:00	0.82 0.81	-25,012 -25,072	0.56	
8/2/17	11:00 12:00	0.81	-25,072 -25,132	0.56	
8/2/17	13:00	0.81		0.59	
8/2/17	14:00	0.84	-25,192 -25,252	0.60	
8/2/17	15:00	0.85	-25,232	0.60	
8/2/17	16:00	0.83	-25,372	0.49	
8/2/17	17:00	0.74	-25,432	0.52	
8/2/17	18:00	0.81	-25,492	0.56	
8/2/17	19:00	0.82	-25,552	0.57	
8/2/17	20:00	0.80	-25,612	0.55	
8/2/17	21:00	0.76	-25,672	0.51	
8/2/17	22:00	0.79	-25,732	0.54	
8/2/17	23:00	0.76	-25,792	0.51	
8/3/17	0:00	0.78	-25,852	0.53	
8/3/17	1:00	0.77	-25,912	0.52	
8/3/17	2:00	0.79	-25,972	0.54	
8/3/17	3:00	0.81	-26,032	0.56	
8/3/17	4:00	0.73	-26,092	0.48	
8/3/17	5:00	0.78	-26,152	0.53	
8/3/17	6:00	0.73	-26,212	0.48	
8/3/17	7:00	0.74	-26,272	0.49	
8/3/17	8:00	0.79	-26,332	0.54	
8/3/17	9:00	0.77	-26,392	0.52	
8/3/17	10:00	0.74	-26,452	0.49	
8/3/17	11:00	0.73	-26,512	0.48	
8/3/17	12:00	0.76	-26,572	0.51	
8/3/17	13:00	0.76	-26,632	0.51	
8/3/17	14:00	0.75	-26,692	0.50	
8/3/17	15:00	0.79	-26,752	0.54	
8/3/17	16:00	0.79	-26,812	0.54	
8/3/17	17:00	0.86	-26,872	0.61	
8/3/17	18:00	0.85	-26,932	0.60	

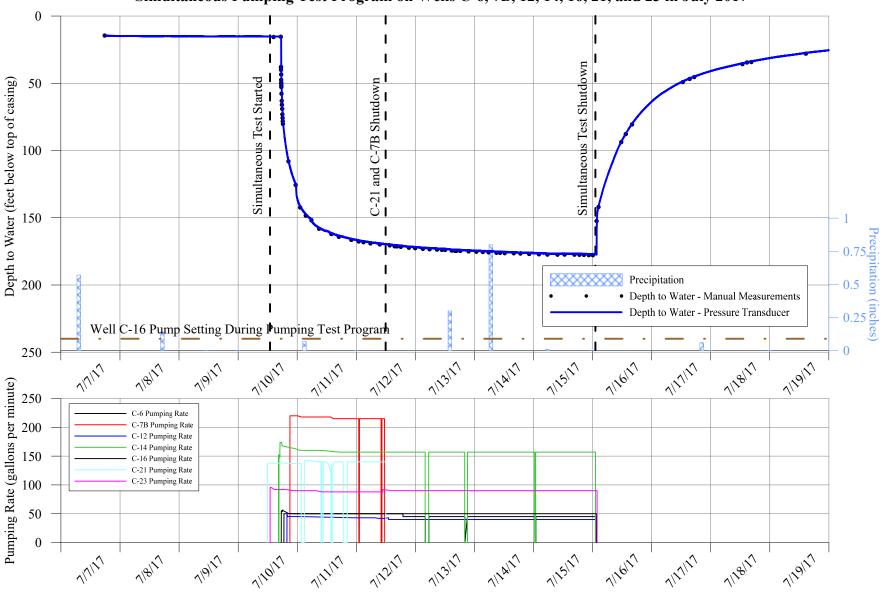
Summary of Water-Level Measurements from Pressure Transducer Installed in Well C-14 Collected During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
8/3/17	19:00	0.83	-26,992	0.58	
8/3/17	20:00	0.80	-27,052	0.55	
8/3/17	21:00	0.77	-27,112	0.52	
8/3/17	22:00	0.74	-27,172	0.49	
8/3/17	23:00	0.82	-27,232	0.57	

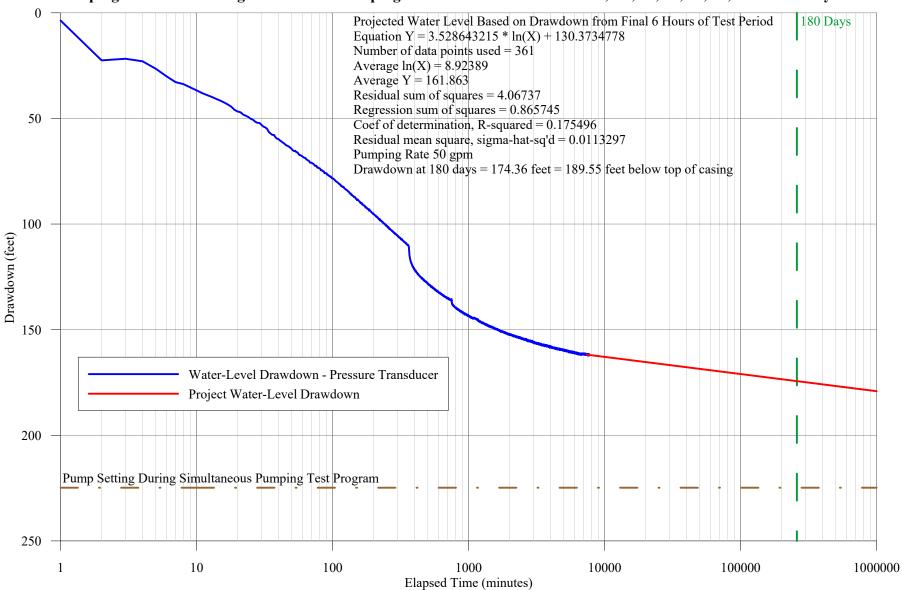
ft btoc feet below top of casing gpm gallons per minute

H:\Lake Anne\Clovewood\2017\July Pumping Test Report\C-14 Table.docx

Hydrograph of Water-Level Measurements Collected from Pumping Well C-16 During Simultaneous Pumping Test Program on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



180-Day Water-Level Drawdown Projection on Pumping Well C-16 from Water-Level Measurements Collected from Pumping Well C-16 During Simultanous Pumping Test Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



		Depth to	Elapsed Time/	Drawdown	
Date	Time	Water	Recovery	(feet)	Comments
		(ft btoc)	(minutes)	(leet)	
7/7/17	18:00	14.53			Pressure transducer installed in well.
7/7/17	19:00	14.69			
7/7/17	20:00	14.80			
7/7/17	21:00	14.72			
7/7/17	22:00	14.80			
7/7/17	23:00	14.81			
7/8/17	0:00 1:00	14.89 14.89			
7/8/17	2:00	14.89			
7/8/17	3:00	14.84			
7/8/17	4:00	14.86			
7/8/17	5:00	14.91			
7/8/17	6:00	14.79			
7/8/17	7:00	14.85			
7/8/17	8:00	14.89			
7/8/17	9:00	14.99			
7/8/17	10:00	14.95			
7/8/17	11:00	15.09			
7/8/17	12:00	15.08			
7/8/17	13:00	15.04			
7/8/17	14:00	15.01			
7/8/17	15:00	15.00			
7/8/17	16:00	14.95			
7/8/17	17:00	14.87			
7/8/17	18:00	14.84			
7/8/17	19:00	14.91			
7/8/17	20:00	14.87			
7/8/17	21:00	14.89			
7/8/17	22:00	14.94			
7/8/17	23:00	14.95			
7/9/17	0:00	15.00			
7/9/17 7/9/17	1:00 2:00	15.01 14.99			
7/9/17	3:00	15.00			
7/9/17	4:00	14.88			
7/9/17	5:00	14.88			
7/9/17	6:00	14.90			
7/9/17	7:00	14.94			
7/9/17	8:00	14.97			
7/9/17	9:00	15.06			
7/9/17	10:00	15.12			
7/9/17	11:00	15.19			
7/9/17	12:00	15.16			
7/9/17	13:00	15.22			
7/9/17	14:00	15.17			
7/9/17	15:00	15.11			
7/9/17	16:00	15.08			
7/9/17	17:00	15.08			
7/9/17	18:00	15.11			
7/9/17	19:00	14.99			
7/9/17	20:00	15.05			
7/9/17	21:00	15.01			
7/9/17	22:00	15.08			
7/9/17	23:00	15.14			

Date	Time	Depth to Water	Elapsed Time/ Recovery	Drawdown (feet)	Comments
		(ft btoc)	(minutes)	(Icci)	
7/10/17	0:00	15.04			
7/10/17	1:00	15.04			
7/10/17	2:00	15.13			
7/10/17	3:00	14.97			
7/10/17	4:00	15.01			
7/10/17 7/10/17	5:00	14.92 15.06			
7/10/17	6:00 7:00	15.05			
7/10/17	8:00	15.03			
7/10/17	9:00	15.09			
7/10/17	10:00	15.13			
7/10/17	11:00	15.11			
7/10/17	11:54	15.19			Static water level used from prior to the start of pumping in any onsite wells.
7/10/17	12:00	15.19			Pump in well C-21 started at 11:55.
7/10/17	13:00	15.22			Pump in well C-23 started at 12:59
7/10/17	14:00	15.30			
7/10/17	15:00	15.26			
7/10/17	16:00	15.18			
7/10/17	17:00	15.20			Pump in well C-14 started at 16:24.
7/10/17	17:30	15.25			
7/10/17	17:31	18.87	1	3.68	Pump in well C-16 started.
7/10/17	17:32	37.68	2	22.49	Pumping rate in well C-16 55 gpm.
7/10/17	17:33	36.95	3	21.76	
7/10/17	17:34	38.13	4	22.94	
7/10/17	17:35	41.65	5	26.46	
7/10/17	17:36	45.25	6 7	30.06	
7/10/17	17:37	48.00 48.94	·	32.81	
7/10/17 7/10/17	17:38 17:39	50.53	8	33.75 35.34	
7/10/17	17:40	51.95	10	36.76	Pumping rate in well C-16 55 gpm.
7/10/17	17:41	53.24	11	38.05	Fulliping rate in wen C-10 33 gpin.
7/10/17	17:42	54.22	12	39.03	
7/10/17	17:43	55.10	13	39.91	
7/10/17	17:44	56.05	14	40.86	
7/10/17	17:45	56.83	15	41.64	
7/10/17	17:46	57.71	16	42.52	
7/10/17	17:47	58.62	17	43.43	
7/10/17	17:48	59.69	18	44.50	
7/10/17	17:49	61.20	19	46.01	
7/10/17	17:50	61.92	20	46.73	
7/10/17	17:55	65.36	25	50.17	Pumping rate in well C-16 53.5 gpm.
7/10/17	17:57	66.77	27	51.58	Manual pumping rate increase in well C-16 to 56.5 gpm.
7/10/17	18:00	68.33	30	53.14	
7/10/17	18:05	72.37	35	57.18	
7/10/17	18:10	75.01	40	59.82	Pumping rate in well C-16 56 gpm.
7/10/17	18:15	77.68	45	62.49	
7/10/17	18:20	79.72	50	64.53	D
7/10/17	18:25	81.28	55	66.09	Pumping rate in well C-16 56 gpm.
7/10/17	18:30	83.19	60	68.00	Pump in well C-6 started at 18:35.
7/10/17	19:00	91.11	90	75.92	Pumping rate in well C-16 55 gpm.
7/10/17	20:00	103.40	150	88.21	Pump in well C-12 started at 19:48.
7/10/17	21:00	111.54	210	96.35	Pump in well C-7B started at 21:03.
7/10/17	22:00	118.16	270	102.97	Pumping rate in well C-16 55 gpm.

	T :	Depth to	Elapsed Time/	Drawdown	
Date	Time	Water (ft btoc)	Recovery	(feet)	Comments
7/10/17	22.00		(minutes)	107.02	Demois and in 2011 C 1650 and
7/10/17 7/11/17	23:00 0:00	123.12 135.74	330 390	107.93 120.55	Pumping rate in well C-16 50 gpm. Pumping rate in well C-16 50 gpm.
7/11/17	1:00	140.67	450	125.48	Pumping rate in well C-16 50 gpm.
7/11/17	2:00	143.74	510	128.55	Pumping rate in well C-16 50 gpm. Pumping rate in well C-16 50 gpm.
7/11/17	3:00	146.52	570	131.33	Pumping rate in well C-16 50 gpm.
7/11/17	4:00	148.35	630	133.16	Pumping rate in well C-16 50 gpm.
7/11/17	5:00	149.99	690	134.80	Pumping rate in well C-16 50 gpm.
7/11/17	6:00	151.36	750	136.17	Pumping rate in well C-16 50 gpm.
7/11/17	7:00	154.91	810	139.72	Pumping rate in well C-16 50 gpm.
7/11/17	8:00	156.49	870	141.30	Pumping rate in well C-16 50 gpm.
7/11/17	9:00	157.59	930	142.40	Pumping rate in well C-16 50 gpm.
7/11/17	10:00	158.51	990	143.32	Pumping rate in well C-16 50 gpm.
7/11/17	11:00	159.42	1,050	144.23	Pumping rate in well C-16 50 gpm.
7/11/17	12:00	159.82	1,110	144.63	Pumping rate in well C-16 50 gpm.
7/11/17	13:00	160.56	1,170	145.37	Pumping rate in well C-16 50 gpm.
7/11/17	14:00	161.60	1,230	146.41	Pumping rate in well C-16 50 gpm.
7/11/17	15:00	162.20	1,290	147.01	Pumping rate in well C-16 50 gpm.
7/11/17	16:00	162.73	1,350	147.54	Pumping rate in well C-16 50 gpm.
7/11/17	17:00	163.26	1,410	148.07	Pumping rate in well C-16 50 gpm.
7/11/17	18:00	164.11	1,470	148.92	Pumping rate in well C-16 50 gpm.
7/11/17	19:00	164.37	1,530	149.18	Pumping rate in well C-16 50 gpm.
7/11/17	20:00	164.90	1,590	149.71	Pumping rate in well C-16 50 gpm.
7/11/17	21:00	165.25	1,650	150.06	Pumping rate in well C-16 50 gpm.
7/11/17	22:00	165.60	1,710	150.41	Pumping rate in well C-16 50 gpm.
7/11/17	23:00	166.35	1,770	151.16	Pumping rate in well C-16 50 gpm.
7/12/17	0:00	166.69	1,830	151.50	Pumping rate in well C-16 50 gpm.
7/12/17	1:00	166.93	1,890	151.74	Pumping rate in well C-16 50 gpm.
7/12/17	2:00	167.18	1,950	151.99	Pumping rate in well C-16 50 gpm.
7/12/17	3:00	167.51	2,010	152.32	Pumping rate in well C-16 50 gpm.
7/12/17	4:00	167.88	2,070	152.69	Pumping rate in well C-16 50 gpm.
7/12/17	5:00	168.00	2,130	152.81	Pumping rate in well C-16 50 gpm.
7/12/17	6:00	168.22	2,190	153.03	Pumping rate in well C-16 50 gpm.
7/12/17	7:00	168.58	2,250	153.39	Pumping rate in well C-16 50 gpm.
7/12/17	8:00	168.72	2,310	153.53	Pumping rate in well C-16 50 gpm.
7/12/17	9:00	168.82	2,370	153.63	Pumping rate in well C-16 50 gpm.
7/12/17	10:00	169.39	2,430	154.20	Pumping rate in well C-16 50 gpm.
7/12/17	11:00	169.51	2,490	154.32	Pumping rate in well C-16 50 gpm.
7/12/17	12:00	169.73	2,550	154.54	Pump in well C-7B shut down at 11:28 and pump in well C-
7/12/17	13:00	169.95	2,610	154.76	21 shut down at 11:56. Pumping rate in well C-16 50 gpm.
7/12/17	14:00	169.93	2,670	154.68	Pumping rate in well C-16 50 gpm. Pumping rate in well C-16 50 gpm.
7/12/17	15:00	170.24	2,730	155.05	Pumping rate in well C-16 50 gpm. Pumping rate in well C-16 50 gpm.
7/12/17	16:00	170.24	2,790	155.15	Pumping rate in well C-16 50 gpm.
7/12/17	17:00	170.54	2,790	155.31	Pumping rate in well C-16 50 gpm.
7/12/17	18:00	170.79	2,910	155.60	Pumping rate in well C-16 50 gpm.
7/12/17	19:00	171.09	2,970	155.90	Pumping rate in well C-16 50 gpm.
7/12/17	20:00	171.41	3,030	156.22	Pumping rate in well C-16 50 gpm.
7/12/17	21:00	171.44	3,090	156.25	Pumping rate in well C-16 50 gpm.
7/12/17	22:00	171.74	3,150	156.55	Pumping rate in well C-16 50 gpm.
7/12/17	23:00	171.75	3,210	156.56	Pumping rate in well C-16 50 gpm.
7/13/17	0:00	171.88	3,270	156.69	Pumping rate in well C-16 50 gpm.
7/13/17	1:00	172.17	3,330	156.98	Pumping rate in well C-16 50 gpm.
7/13/17	2:00	172.36	3,390	157.17	Pumping rate in well C-16 50 gpm.
7/13/17	3:00	172.34	3,450	157.15	Pumping rate in well C-16 50 gpm.
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Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
7/13/17	4:00	172.37	3,510	157.18	Pumping rate in well C-16 50 gpm.
7/13/17	5:00	172.64	3,570	157.45	Pumping rate in well C-16 50 gpm.
7/13/17	6:00	172.66	3,630	157.47	Pumping rate in well C-16 50 gpm.
7/13/17	7:00	172.80	3,690	157.61	Pumping rate in well C-16 50 gpm.
7/13/17	8:00	172.84	3,750	157.65	Pumping rate in well C-16 50 gpm.
7/13/17	9:00	172.92	3,810	157.73	Pumping rate in well C-16 50 gpm.
7/13/17	10:00	173.20	3,870	158.01	Pumping rate in well C-16 50 gpm.
7/13/17	11:00	173.22	3,930	158.03	Pumping rate in well C-16 50 gpm.
7/13/17	12:00	173.18	3,990	157.99	Pumping rate in well C-16 50 gpm.
7/13/17	13:00	173.43	4,050	158.24	Pumping rate in well C-16 50 gpm.
7/13/17	14:00	173.67	4,110	158.48	Pumping rate in well C-16 50 gpm.
7/13/17	15:00	173.58	4,170	158.39	Pumping rate in well C-16 50 gpm.
7/13/17	16:00	173.83	4,230	158.64	Pumping rate in well C-16 50 gpm.
7/13/17	17:00	173.99	4,290	158.80	Pumping rate in well C-16 50 gpm.
7/13/17	18:00	173.89	4,350	158.70	Pumping rate in well C-16 50 gpm.
7/13/17 7/13/17	19:00 20:00	174.36 174.43	4,410 4,470	159.17 159.24	Pumping rate in well C-16 50 gpm.
7/13/17	20:00	174.43	4,470	159.24	Pumping rate in well C-16 50 gpm. Pumping rate in well C-16 50 gpm.
7/13/17	22:00	174.33	4,590	159.07	Pumping rate in well C-16 50 gpm. Pumping rate in well C-16 50 gpm.
7/13/17	23:00	174.46	4,650	159.27	Pumping rate in well C-16 50 gpm.
7/13/17	0:00	174.40	4,710	159.12	Pumping rate in well C-16 50 gpm.
7/14/17	1:00	174.56	4,770	159.37	Pumping rate in well C-16 50 gpm.
7/14/17	2:00	174.57	4,830	159.38	Pumping rate in well C-16 50 gpm.
7/14/17	3:00	174.83	4,890	159.64	Pumping rate in well C-16 50 gpm.
7/14/17	4:00	174.89	4,950	159.70	Pumping rate in well C-16 50 gpm.
7/14/17	5:00	174.79	5,010	159.60	Pumping rate in well C-16 50 gpm.
7/14/17	6:00	174.96	5,070	159.77	Pumping rate in well C-16 50 gpm.
7/14/17	7:00	174.78	5,130	159.59	Pumping rate in well C-16 50 gpm.
7/14/17	8:00	175.07	5,190	159.88	Pumping rate in well C-16 50 gpm.
7/14/17	9:00	175.17	5,250	159.98	Pumping rate in well C-16 50 gpm.
7/14/17	10:00	175.34	5,310	160.15	Pumping rate in well C-16 50 gpm.
7/14/17	11:00	175.35	5,370	160.16	Pumping rate in well C-16 50 gpm.
7/14/17	12:00	175.44	5,430	160.25	Pumping rate in well C-16 50 gpm.
7/14/17	13:00	175.56	5,490	160.37	Pumping rate in well C-16 50 gpm.
7/14/17	14:00	175.68	5,550	160.49	Pumping rate in well C-16 50 gpm.
7/14/17	15:00	175.47	5,610	160.28	Pumping rate in well C-16 50 gpm.
7/14/17	16:00	175.83	5,670	160.64	Pumping rate in well C-16 50 gpm.
7/14/17	17:00	175.62	5,730	160.43	Pumping rate in well C-16 50 gpm.
7/14/17	18:00	175.88	5,790	160.69	Pumping rate in well C-16 50 gpm.
7/14/17	19:00	175.91	5,850	160.72 161.02	Pumping rate in well C-16 50 gpm.
7/14/17	20:00	176.21	5,910 5,970	161.02	Pumping rate in well C-16 50 gpm.
7/14/17	21:00 22:00	176.08 176.13		160.89	Pumping rate in well C-16 50 gpm. Pumping rate in well C-16 50 gpm.
7/14/17	23:00	176.13	6,030 6,090	160.95	Pumping rate in well C-16 50 gpm. Pumping rate in well C-16 50 gpm.
7/15/17	0:00	176.14	6,090	161.00	Pumping rate in well C-16 50 gpm. Pumping rate in well C-16 50 gpm.
7/15/17	1:00	176.19	6,210	161.18	Pumping rate in well C-16 50 gpm.
7/15/17	2:00	176.47	6,270	161.28	Pumping rate in well C-16 50 gpm.
7/15/17	3:00	176.52	6,330	161.33	Pumping rate in well C-16 50 gpm.
7/15/17	4:00	176.86	6,390	161.67	Pumping rate in well C-16 50 gpm.
7/15/17	5:00	176.68	6,450	161.49	Pumping rate in well C-16 50 gpm.
7/15/17	6:00	176.63	6,510	161.44	Pumping rate in well C-16 50 gpm.
7/15/17	7:00	176.81	6,570	161.62	Pumping rate in well C-16 50 gpm.
7/15/17	8:00	176.90	6,630	161.71	Pumping rate in well C-16 50 gpm.
7/15/17	9:00	176.70	6,690	161.51	Pumping rate in well C-16 50 gpm.

		Depth to	Elapsed Time/	Drawdown	~
Date	Time	Water	Recovery	(feet)	Comments
7/15/17	10:00	(ft btoc) 176.59	(minutes)	161.40	Durania a rata in swall C 16 50 anna
7/15/17	11:00	176.59	6,750 6,810	161.40 161.40	Pumping rate in well C-16 50 gpm. Pumping rate in well C-16 50 gpm.
7/15/17	12:00	176.64	6,870	161.45	Pumping rate in well C-16 50 gpm.
7/15/17	13:00	176.54	6,930	161.35	Pumping rate in well C-16 50 gpm.
7/15/17	14:00	176.57	6,990	161.38	Pumping rate in well C-16 50 gpm.
7/15/17	15:00	176.99	7,050	161.80	Pumping rate in well C-16 50 gpm.
7/15/17	16:00	176.82	7,110	161.63	Pumping rate in well C-16 50 gpm.
7/15/17	17:00	176.95	7,170	161.76	Pumping rate in well C-16 50 gpm.
7/15/17	18:00	176.80	7,230	161.61	Pumping rate in well C-16 50 gpm.
7/15/17	19:00	176.96	7,290	161.77	Pumping rate in well C-16 50 gpm.
7/15/17	19:09	176.71	7,299	161.52	Pumping rate in well C-16 50 gpm.
7/15/17	20:00	176.86	7,350	161.67	Pumping rate in well C-16 50 gpm.
7/15/17	21:00	176.98	7,410	161.79	Pumping rate in well C-16 50 gpm.
7/15/17	22:00	177.16	7,470	161.97	Pumping rate in well C-16 50 gpm.
7/15/17	23:00	177.00	7,530	161.81	Pumping rate in well C-16 50 gpm.
7/16/17	0:00	176.97	7,590	161.78	Pumping rate in well C-16 50 gpm.
7/16/17	1:00	176.97	7,650	161.78	Pumping rate in well C-16 50 gpm.
					Shut down of simultaneous pumping test (wells C-6, 12, 14,
7/16/17	1:09	177.15	7,659	161.96	16, and 23) started.
7/16/17	1:39	176.94	7,689	161.75	Pumping rate in well C-16 50 gpm.
7/16/17	1:40	177.23	7,690	162.04	Pumping rate in well C-16 50 gpm.
7/16/17	1:41	163.04	-1	147.85	Pump in well C-16 shut down.
7/16/17	1:42	158.51	-2	143.32	•
7/16/17	1:43	155.83	-3	140.64	
7/16/17	1:44	153.97	-4	138.78	
7/16/17	1:45	152.69	-5	137.50	
7/16/17	1:46	151.59	-6	136.40	
7/16/17	1:47	150.66	-7	135.47	
7/16/17	1:48	150.02	-8	134.83	
7/16/17	1:49	149.47	-9	134.28	
7/16/17	1:50	149.00	-10	133.81	
7/16/17	1:51	148.47	-11	133.28	
7/16/17	1:52	148.23	-12	133.04	
7/16/17	1:53	147.82	-13	132.63	
7/16/17	1:54	147.42	-14	132.23	
7/16/17	1:55	147.26	-15	132.07	
7/16/17	2:00	145.90	-20	130.71	
7/16/17	2:05	144.94	-25	129.75	
7/16/17	2:10	144.14	-30	128.95	
7/16/17	2:15	143.28	-35	128.09	
7/16/17	2:20	142.56	-40	127.37	
7/16/17	2:25	141.84	-45	126.65	
7/16/17	2:30	141.11	-50	125.92	
7/16/17	2:35	140.37	-55	125.18	
7/16/17	2:40	139.83	-60	124.64	
7/16/17	3:00	137.44	-80	122.25	
7/16/17 7/16/17	4:00	130.80 124.66	-140 -200	115.61 109.47	
	5:00				
7/16/17 7/16/17	6:00	119.17	-260 -320	103.98	
7/16/17	7:00 8:00	114.04 109.28	-320 -380	98.85 94.09	
7/16/17	9:00	109.28	-380 -440	94.09 89.34	
7/16/17	10:00	99.97	-500	89.34 84.78	+
7/16/17	11:00	95.91	-560	80.72	+
//10/1/	11.00	73.71	-300	00.72	

		Depth to	Elapsed Time/	Drawdown	
Date	Time	Water	Recovery	(feet)	Comments
		(ft btoc)	(minutes)	` ,	
7/16/17	12:00	92.30	-620	77.11	
7/16/17	13:00	89.03	-680	73.84	
7/16/17	14:00	85.98	-740	70.79	
7/16/17	15:00	82.94	-800	67.75	
7/16/17	16:00	80.20	-860	65.01	
7/16/17	17:00	77.73	-920	62.54	
7/16/17	18:00	75.39	-980	60.20	
7/16/17	19:00	73.17	-1,040	57.98	
7/16/17	20:00	71.04	-1,100	55.85	
7/16/17	21:00	69.03	-1,160	53.84	
7/16/17	22:00	67.19	-1,220	52.00	
7/16/17 7/17/17	23:00 0:00	65.36 63.76	-1,280 -1,340	50.17 48.57	
7/17/17	1:00	62.09	-1,340	46.90	
7/17/17	2:00	62.09	-1,460 -1,460	45.28	+
7/17/17	3:00	59.08	-1,460 -1,520	43.89	+
7/17/17	4:00	57.72	-1,580	42.53	+
7/17/17	5:00	56.58	-1,640	42.33	+
7/17/17	6:00	55.40	-1,700	40.21	
7/17/17	7:00	54.24	-1,760	39.05	
7/17/17	8:00	53.24	-1,820	38.05	
7/17/17	9:00	52.06	-1,880	36.87	
7/17/17	10:00	51.05	-1,940	35.86	
7/17/17	11:00	50.07	-2,000	34.88	
7/17/17	12:00	49.11	-2,060	33.92	
7/17/17	13:00	48.36	-2,120	33.17	
7/17/17	14:00	47.50	-2,180	32.31	
7/17/17	15:00	46.63	-2,240	31.44	
7/17/17	16:00	45.94	-2,300	30.75	
7/17/17	17:00	45.25	-2,360	30.06	
7/17/17	18:00	44.55	-2,420	29.36	
7/17/17	19:00	43.85	-2,480	28.66	
7/17/17	20:00	43.28	-2,540	28.09	
7/17/17	21:00	42.56	-2,600	27.37	
7/17/17	22:00	42.04	-2,660	26.85	
7/17/17	23:00	41.49	-2,720	26.30	
7/18/17	0:00	40.87	-2,780	25.68	
7/18/17	1:00	40.39	-2,840	25.20	
7/18/17	2:00	39.86	-2,900	24.67	
7/18/17	3:00	39.31	-2,960	24.12	
7/18/17	4:00	38.86	-3,020	23.67	
7/18/17	5:00	38.49	-3,080	23.30	
7/18/17	6:00	38.02	-3,140	22.83	
7/18/17	7:00	37.55	-3,200	22.36	
7/18/17	8:00	37.12	-3,260	21.93	
7/18/17	9:00	36.81	-3,320	21.62	
7/18/17	10:00	36.29	-3,380	21.10	
7/18/17	11:00	35.88	-3,440	20.69	
7/18/17	12:00	35.48	-3,500	20.29	
7/18/17	13:00	35.13	-3,560	19.94	
7/18/17	14:00	34.65	-3,620	19.46	
7/18/17	15:00	34.33	-3,680	19.14	
7/18/17	16:00	33.89	-3,740	18.70	
7/18/17	17:00	33.53	-3,800	18.34	

		Depth to	Elapsed Time/	Drawdown	
Date	Time	Water	Recovery	(feet)	Comments
		(ft btoc)	(minutes)	` '	
7/18/17	18:00	33.20	-3,860	18.01	
7/18/17	19:00	32.82	-3,920	17.63	
7/18/17	20:00	32.54	-3,980	17.35	
7/18/17	21:00	32.18	-4,040	16.99	
7/18/17	22:00	31.78	-4,100	16.59 16.37	
7/18/17	23:00	31.56 31.27	-4,160		000/
7/19/17 7/19/17	0:00 1:00	30.89	-4,220 -4,280	16.08 15.70	90% recovery achieved.
7/19/17	2:00	30.67	-4,340	15.48	
7/19/17	3:00	30.33	-4,400	15.14	
7/19/17	4:00	30.10	-4,460	14.91	
7/19/17	5:00	29.80	-4,520	14.61	
7/19/17	6:00	29.61	-4,580	14.42	
7/19/17	7:00	29.34	-4,640	14.15	
7/19/17	8:00	29.06	-4,700	13.87	
7/19/17	9:00	28.87	-4,760	13.68	
7/19/17	10:00	28.61	-4,820	13.42	
7/19/17	11:00	28.31	-4,880	13.12	
7/19/17	12:00	28.10	-4,940	12.91	
7/19/17	13:00	27.87	-5,000	12.68	
7/19/17	14:00	27.61	-5,060	12.42	
7/19/17	15:00	27.24	-5,120	12.05	
7/19/17	16:00	27.06	-5,180	11.87	
7/19/17	17:00	26.88	-5,240	11.69	
7/19/17	18:00	26.61	-5,300	11.42	
7/19/17	19:00	26.44	-5,360	11.25	
7/19/17	20:00	26.21	-5,420	11.02	
7/19/17	21:00	26.04	-5,480	10.85	
7/19/17	22:00	25.84	-5,540	10.65	
7/19/17	23:00	25.53	-5,600	10.34	
7/20/17	0:00	25.43	-5,660	10.24	
7/20/17 7/20/17	1:00 2:00	25.21 25.03	-5,720 -5,780	10.02 9.84	
7/20/17	3:00	23.03	-5,780 -5,840	9.60	
7/20/17	4:00	24.79	-5,900	9.50	
7/20/17	5:00	24.55	-5,960	9.36	
7/20/17	6:00	24.33	-6,020	9.15	
7/20/17	7:00	24.28	-6,080	9.09	
7/20/17	8:00	24.17	-6,140	8.98	
7/20/17	9:00	24.05	-6,200	8.86	
7/20/17	10:00	23.92	-6,260	8.73	
7/20/17	11:00	23.61	-6,320	8.42	
7/20/17	12:00	23.50	-6,380	8.31	
7/20/17	13:00	23.33	-6,440	8.14	
7/20/17	14:00	23.14	-6,500	7.95	
7/20/17	15:00	22.98	-6,560	7.79	
7/20/17	16:00	22.86	-6,620	7.67	
7/20/17	17:00	22.61	-6,680	7.42	
7/20/17	18:00	22.47	-6,740	7.28	
7/20/17	19:00	22.40	-6,800	7.21	
7/20/17	20:00	22.31	-6,860	7.12	
7/20/17	21:00	22.21	-6,920	7.02	
7/20/17	22:00	22.03	-6,980	6.84	
7/20/17	23:00	21.92	-7,040	6.73	

		Depth to	Elapsed Time/	Drawdown	
Date	Time	Water	Recovery	(feet)	Comments
= (0.1 /1.5	0.00	(ft btoc)	(minutes)	` ′	
7/21/17	0:00	21.83	-7,100	6.64	
7/21/17	1:00	21.76 21.48	-7,160 7,220	6.57	
7/21/17 7/21/17	2:00 3:00	21.48	-7,220 -7,280	6.29 6.19	
7/21/17	4:00	21.38	-7,280	6.08	
7/21/17	5:00	21.27	-7,400	6.00	
7/21/17	6:00	21.19	-7,460	5.93	
7/21/17	7:00	20.96	-7,520	5.77	
7/21/17	8:00	20.91	-7,580	5.72	
7/21/17	9:00	20.82	-7,640	5.63	
7/21/17	10:00	20.81	-7,700	5.62	
7/21/17	11:00	20.62	-7,760	5.43	
7/21/17	12:00	20.59	-7,820	5.40	
7/21/17	13:00	20.49	-7,880	5.30	
7/21/17	14:00	20.36	-7,940	5.17	
7/21/17	15:00	20.21	-8,000	5.02	
7/21/17	16:00	20.07	-8,060	4.88	
7/21/17	17:00	19.92	-8,120	4.73	
7/21/17	18:00	19.88	-8,180	4.69	
7/21/17	19:00	19.74	-8,240	4.55	
7/21/17	20:00	19.75	-8,300	4.56	
7/21/17	21:00	19.61	-8,360	4.42	
7/21/17	22:00	19.59	-8,420	4.40	
7/21/17	23:00	19.51	-8,480	4.32	
7/22/17	0:00	19.44	-8,540	4.25 4.18	
7/22/17 7/22/17	1:00 2:00	19.37 19.18	-8,600 -8,660	3.99	
7/22/17	3:00	19.18	-8,720	4.02	
7/22/17	4:00	19.12	-8,780	3.93	
7/22/17	5:00	19.00	-8,840	3.81	
7/22/17	6:00	18.94	-8,900	3.75	
7/22/17	7:00	18.92	-8,960	3.73	
7/22/17	8:00	18.90	-9,020	3.71	
7/22/17	9:00	18.85	-9,080	3.66	
7/22/17	10:00	18.85	-9,140	3.66	
7/22/17	11:00	18.81	-9,200	3.62	
7/22/17	12:00	18.74	-9,260	3.55	
7/22/17	13:00	18.73	-9,320	3.54	
7/22/17	14:00	18.56	-9,380	3.37	
7/22/17	15:00	18.47	-9,440	3.28	
7/22/17	16:00	18.36	-9,500	3.17	
7/22/17	17:00	18.22	-9,560	3.03	
7/22/17	18:00	18.22	-9,620	3.03	
7/22/17	19:00	18.16	-9,680	2.97	
7/22/17	20:00	18.15	-9,740	2.96	
7/22/17 7/22/17	21:00	18.14 18.13	-9,800 -9,860	2.95 2.94	
7/22/17		18.13	-9,860 -9,920		
7/23/17	23:00 0:00	17.96	-9,920 -9,980	2.88 2.77	
7/23/17	1:00	17.96	-10,040	2.80	
7/23/17	2:00	17.71	-10,100	2.52	
7/23/17	3:00	17.82	-10,160	2.63	
7/23/17	4:00	17.72	-10,100	2.53	
7/23/17	5:00	17.69	-10,220	2.50	
	2.00		,=		

	T:	Depth to	Elapsed Time/	Drawdown	, .
Date	Time	Water (ft btoc)	Recovery (minutes)	(feet)	Comments
7/23/17	6:00	17.64	-10,340	2.45	
7/23/17	7:00	17.66	-10,400	2.47	
7/23/17	8:00	17.57	-10,460	2.38	
7/23/17	9:00	17.66	-10,520	2.47	
7/23/17	10:00	17.65	-10,580	2.46	
7/23/17	11:00	17.68	-10,640	2.49	
7/23/17	12:00	17.67	-10,700	2.48	
7/23/17	13:00	17.62	-10,760	2.43	
7/23/17	14:00	17.61	-10,820	2.42	
7/23/17	15:00	17.53	-10,880	2.34	
7/23/17	16:00	17.42	-10,940	2.23	
7/23/17	17:00	17.40	-11,000	2.21	
7/23/17	18:00	17.31	-11,060	2.12	
7/23/17	19:00	17.24	-11,120	2.05	
7/23/17	20:00	17.25	-11,180	2.06	
7/23/17	21:00	17.25	-11,240	2.06	
7/23/17	22:00	17.24	-11,300	2.05	
7/23/17	23:00	17.28	-11,360	2.09	
7/24/17	0:00	17.12	-11,420	1.93	
7/24/17	1:00	17.10	-11,480	1.91	
7/24/17	2:00	17.15	-11,540	1.96	
7/24/17	3:00	17.03	-11,600	1.84	
7/24/17 7/24/17	4:00	16.97	-11,660	1.78 1.77	
7/24/17	5:00 6:00	16.96 16.98	-11,720 -11,780	1.77	
7/24/17	7:00	16.98	-11,780	1.69	
7/24/17	8:00	16.86	-11,900	1.67	
7/24/17	9:00	16.83	-11,960	1.64	
7/24/17	10:00	16.86	-12,020	1.67	
7/24/17	11:00	16.89	-12,020	1.70	
7/24/17	12:00	16.88	-12,140	1.69	
7/24/17	13:00	16.92	-12,200	1.73	
7/24/17	14:00	16.82	-12,260	1.63	
7/24/17	15:00	16.82	-12,320	1.63	
7/24/17	16:00	16.83	-12,380	1.64	
7/24/17	17:00	16.75	-12,440	1.56	
7/24/17	18:00	16.66	-12,500	1.47	
7/24/17	19:00	16.62	-12,560	1.43	
7/24/17	20:00	16.61	-12,620	1.42	
7/24/17	21:00	16.66	-12,680	1.47	
7/24/17	22:00	16.69	-12,740	1.50	
7/24/17	23:00	16.55	-12,800	1.36	
7/25/17	0:00	16.64	-12,860	1.45	
7/25/17	1:00	16.58	-12,920	1.39	
7/25/17	2:00	16.60	-12,980	1.41	
7/25/17	3:00	16.57	-13,040	1.38	
7/25/17	4:00	16.58	-13,100	1.39	
7/25/17	5:00	16.55	-13,160	1.36	
7/25/17	6:00	16.52	-13,220	1.33	
7/25/17	7:00	16.47	-13,280	1.28	
7/25/17	8:00	16.43	-13,340	1.24	
7/25/17	9:00	16.52	-13,400	1.33	
7/25/17	10:00	16.47	-13,460 13,520	1.28	
7/25/17	11:00	16.45	-13,520	1.26	

		Depth to	Elapsed Time/	Drawdown	
Date	Time	Water	Recovery	(feet)	Comments
		(ft btoc)	(minutes)	` ,	
7/25/17	12:00	16.55	-13,580	1.36	Pump in well C-21 started at 11:44.
7/25/17	13:00	16.49	-13,640	1.30	
7/25/17	14:00	16.50	-13,700	1.31	
7/25/17	15:00	16.54	-13,760	1.35	
7/25/17	16:00	16.50	-13,820	1.31	
7/25/17	17:00	16.46	-13,880	1.27	
7/25/17	18:00	16.45	-13,940	1.26	
7/25/17	19:00	16.40	-14,000	1.21	
7/25/17	20:00	16.37	-14,060	1.18	
7/25/17	21:00	16.32	-14,120	1.13	
7/25/17	22:00	16.32	-14,180	1.13	
7/25/17	23:00	16.31	-14,240	1.12	
7/26/17	0:00	16.30	-14,300	1.11	
7/26/17	1:00	16.40	-14,360	1.21	
7/26/17	2:00	16.45	-14,420	1.26 1.23	
7/26/17	3:00	16.42	-14,480		
7/26/17	4:00	16.23	-14,540	1.04	
7/26/17 7/26/17	5:00 6:00	16.27 16.32	-14,600 -14,660	1.08	
7/26/17	7:00	16.32	-14,720	0.99	
7/26/17	8:00	16.18	-14,780	0.99	
7/26/17	9:00	16.24	-14,780	1.05	
7/26/17	10:00	16.30	-14,900	1.11	
7/26/17	11:00	16.25	-14,960	1.06	
7/26/17	12:00	16.27	-15,020	1.08	
7/26/17	13:00	16.26	-15,080	1.07	
7/26/17	14:00	16.32	-15,140	1.13	
7/26/17	15:00	16.27	-15,200	1.08	
7/26/17	16:00	16.17	-15,260	0.98	
7/26/17	17:00	16.22	-15,320	1.03	
7/26/17	18:00	16.14	-15,380	0.95	
7/26/17	19:00	16.12	-15,440	0.93	
7/26/17	20:00	16.01	-15,500	0.82	
7/26/17	21:00	16.01	-15,560	0.82	
7/26/17	22:00	15.97	-15,620	0.78	
7/26/17	23:00	15.97	-15,680	0.78	
7/27/17	0:00	15.95	-15,740	0.75	
7/27/17	1:00	16.03	-15,800	0.84	
7/27/17	2:00	16.00	-15,860	0.81	
7/27/17	3:00	15.95	-15,920	0.76	
7/27/17	4:00	15.88	-15,980	0.69	
7/27/17	5:00	15.92	-16,040	0.73	
7/27/17	6:00	15.87	-16,100	0.68	
7/27/17	7:00	15.88	-16,160	0.69	
7/27/17	8:00	15.89	-16,220	0.70	
7/27/17	9:00	15.89	-16,280	0.70	
7/27/17	10:00	15.86	-16,340	0.67	
7/27/17	11:00	15.90	-16,400	0.71	
7/27/17	12:00	15.86	-16,460	0.67	
7/27/17	13:00	15.82	-16,520	0.63	
7/27/17	14:00	15.82	-16,580	0.63	
7/27/17	15:00	15.89	-16,640	0.70	
7/27/17	16:00	15.90	-16,700	0.71	
7/27/17	17:00	15.75	-16,760	0.56	

		Depth to	Elapsed Time/	Drawdown	
Date	Time	Water	Recovery	(feet)	Comments
		(ft btoc)	(minutes)	` /	
7/27/17	18:00	15.74	-16,820	0.54	
7/27/17	19:00	15.70	-16,880	0.51	
7/27/17	20:00	15.68	-16,940	0.49	
7/27/17	21:00	15.68	-17,000	0.49	
7/27/17	22:00	15.70	-17,060	0.51	
7/27/17	23:00	15.70	-17,120	0.51	
7/28/17 7/28/17	0:00	15.66 15.72	-17,180 -17,240	0.47	
7/28/17	1:00 2:00	15.72	-17,240	0.53 0.45	
7/28/17	3:00	15.71	-17,360	0.43	
7/28/17	4:00	15.71	-17,420	0.52	
7/28/17	5:00	15.66	-17,420	0.47	
7/28/17	6:00	15.69	-17,540	0.50	
7/28/17	7:00	15.63	-17,600	0.44	
7/28/17	8:00	15.64	-17,660	0.45	
7/28/17	9:00	15.62	-17,720	0.43	
7/28/17	10:00	15.62	-17,780	0.43	
7/28/17	11:00	15.61	-17,840	0.42	
7/28/17	12:00	15.65	-17,900	0.46	Pump in well C-21 shut down at 12:15.
7/28/17	13:00	15.62	-17,960	0.43	Tomp in went of 21 shat down at 12.13.
7/28/17	14:00	15.60	-18,020	0.41	
7/28/17	15:00	15.60	-18,080	0.41	
7/28/17	16:00	15.55	-18,140	0.36	
7/28/17	17:00	15.53	-18,200	0.34	
7/28/17	18:00	15.51	-18,260	0.32	
7/28/17	19:00	15.52	-18,320	0.33	
7/28/17	20:00	15.45	-18,380	0.25	
7/28/17	21:00	15.45	-18,440	0.26	
7/28/17	22:00	15.37	-18,500	0.18	
7/28/17	23:00	15.41	-18,560	0.22	
7/29/17	0:00	15.54	-18,620	0.35	
7/29/17	1:00	15.48	-18,680	0.29	
7/29/17	2:00	15.49	-18,740	0.30	
7/29/17	3:00	15.47	-18,800	0.28	
7/29/17	4:00	15.40	-18,860	0.20	
7/29/17	5:00	15.43	-18,920	0.24	
7/29/17	6:00	15.46	-18,980	0.27	
7/29/17	7:00	15.48	-19,040	0.29	
7/29/17	8:00	15.51	-19,100	0.32	
7/29/17	9:00	15.45	-19,160	0.26	
7/29/17	10:00	15.44	-19,220	0.25	
7/29/17	11:00	15.39	-19,280	0.20	
7/29/17	12:00	15.46	-19,340	0.27	
7/29/17	13:00	15.41	-19,400	0.22	
7/29/17	14:00	15.46	-19,460	0.27	
7/29/17	15:00	15.36	-19,520	0.17	
7/29/17	16:00	15.43	-19,580	0.24	
7/29/17	17:00	15.48	-19,640	0.29	
7/29/17	18:00	15.34	-19,700	0.15	
7/29/17	19:00	15.46	-19,760	0.27	
7/29/17	20:00	15.30	-19,820	0.11	
7/29/17	21:00	15.45	-19,880	0.26	
7/29/17	22:00	15.40	-19,940	0.21	
7/29/17	23:00	15.37	-20,000	0.18	

		Depth to	Elapsed Time/	Drawdown	
Date	Time	Water	Recovery	(feet)	Comments
7/30/17	0:00	(ft btoc)	(minutes) -20,060	0.22	<u> </u>
7/30/17	1:00	15.41 15.33	-20,120	0.22	
7/30/17	2:00	15.39	-20,120	0.20	
7/30/17	3:00	15.36	-20,240	0.16	
7/30/17	4:00	15.40	-20,300	0.21	
7/30/17	5:00	15.49	-20,360	0.30	
7/30/17	6:00	15.50	-20,420	0.31	
7/30/17	7:00	15.42	-20,480	0.23	
7/30/17	8:00	15.41	-20,540	0.22	
7/30/17	9:00	15.48	-20,600	0.29	
7/30/17	10:00	15.34	-20,660	0.15	
7/30/17	11:00	15.42	-20,720	0.23	
7/30/17	12:00	15.40	-20,780	0.21	
7/30/17	13:00	15.40	-20,840	0.21	
7/30/17 7/30/17	14:00 15:00	15.40 15.42	-20,900 -20,960	0.20 0.23	
7/30/17	16:00	15.42	-20,960	0.23	
7/30/17	17:00	15.51	-21,020	0.32	
7/30/17	18:00	15.37	-21,140	0.18	
7/30/17	19:00	15.39	-21,200	0.20	
7/30/17	20:00	15.38	-21,260	0.19	
7/30/17	21:00	15.33	-21,320	0.14	
7/30/17	22:00	15.39	-21,380	0.20	
7/30/17	23:00	15.39	-21,440	0.20	
7/31/17	0:00	15.35	-21,500	0.16	
7/31/17	1:00	15.38	-21,560	0.19	
7/31/17	2:00 3:00	15.38 15.39	-21,620 -21,680	0.19 0.20	
7/31/17	4:00	15.39	-21,740	0.20	
7/31/17	5:00	15.39	-21,800	0.20	
7/31/17	6:00	15.46	-21,860	0.27	
7/31/17	7:00	15.45	-21,920	0.26	
7/31/17	8:00	15.38	-21,980	0.19	
7/31/17	9:00	15.42	-22,040	0.23	
7/31/17	10:00	15.35	-22,100	0.16	
7/31/17	11:00	15.34	-22,160	0.15	
7/31/17	12:00	15.32	-22,220	0.13	
7/31/17 7/31/17	13:00 14:00	15.35 15.30	-22,280 -22,340	0.16 0.11	
7/31/17	15:00	15.27	-22,340	0.08	
7/31/17	16:00	15.40	-22,460	0.08	
7/31/17	17:00	15.30	-22,520	0.11	
7/31/17	18:00	15.21	-22,580	0.02	
7/31/17	19:00	15.29	-22,640	0.10	
7/31/17	20:00	15.40	-22,700	0.21	
7/31/17	21:00	15.32	-22,760	0.13	
7/31/17	22:00	15.22	-22,820	0.03	
7/31/17 8/1/17	23:00 0:00	15.20 15.22	-22,880 -22,940	0.01	
8/1/17	1:00	15.22	-22,940	0.03	
8/1/17	2:00	15.27	-23,060	0.08	
8/1/17	3:00	15.26	-23,120	0.07	
8/1/17	4:00	15.28	-23,180	0.09	
8/1/17	5:00	15.28	-23,240	0.09	

		Depth to	Elapsed Time/	Drawdown	
Date	Time	Water	Recovery	(feet)	Comments
0/1/15	6.00	(ft btoc)	(minutes)	` '	
8/1/17	6:00	15.32	-23,300	0.13	
8/1/17	7:00	15.41	-23,360	0.22	
8/1/17	8:00	15.39	-23,420	0.20	
8/1/17	9:00	15.34	-23,480	0.15	
8/1/17 8/1/17	10:00 11:00	15.33 15.33	-23,540 -23,600	0.14 0.14	
8/1/17	12:00	15.43	-23,660	0.14	
8/1/17	13:00	15.45	-23,720	0.16	
8/1/17	14:00	15.29	-23,780	0.10	
8/1/17	15:00	15.31	-23,840	0.12	
8/1/17	16:00	15.28	-23,900	0.09	
8/1/17	17:00	15.30	-23,960	0.11	
8/1/17	18:00	15.26	-24,020	0.07	
8/1/17	19:00	15.26	-24,080	0.07	
8/1/17	20:00	15.28	-24,140	0.09	
8/1/17	21:00	15.31	-24,200	0.12	
8/1/17	22:00	15.30	-24,260	0.11	
8/1/17	23:00	15.26	-24,320	0.07	
8/2/17	0:00	15.25	-24,380	0.06	
8/2/17	1:00	15.21	-24,440	0.02	
8/2/17	2:00	15.28	-24,500	0.09	
8/2/17	3:00	15.23	-24,560	0.04	
8/2/17	4:00	15.22	-24,620	0.03	
8/2/17	5:00	15.27	-24,680	0.08	
8/2/17	6:00	15.26	-24,740	0.07	
8/2/17	7:00	15.31	-24,800	0.11	
8/2/17 8/2/17	8:00	15.30	-24,860	0.11	
8/2/17	9:00 10:00	15.39 15.29	-24,920 -24,980	0.20 0.10	
8/2/17	11:00	15.29	-25,040	0.10	
8/2/17	12:00	15.34	-25,100	0.14	
8/2/17	13:00	15.32	-25,160	0.13	
8/2/17	14:00	15.37	-25,220	0.18	
8/2/17	15:00	15.23	-25,280	0.04	
8/2/17	16:00	15.38	-25,340	0.19	
8/2/17	17:00	15.28	-25,400	0.09	
8/2/17	18:00	15.23	-25,460	0.04	
8/2/17	19:00	15.27	-25,520	0.08	
8/2/17	20:00	15.17	-25,580	-0.02	
8/2/17	21:00	15.26	-25,640	0.07	
8/2/17	22:00	15.27	-25,700	0.08	
8/2/17	23:00	15.27	-25,760	0.08	
8/3/17	0:00	15.21	-25,820	0.02	
8/3/17	1:00	15.19	-25,880	0.00	
8/3/17	2:00	15.15	-25,940	-0.04	
8/3/17	3:00	15.18	-26,000	-0.01	
8/3/17	4:00	15.24	-26,060	0.04	
8/3/17	5:00	15.21	-26,120 26,120	0.02	
8/3/17	6:00 7:00	15.29 15.32	-26,180 -26,240	0.09 0.13	
8/3/17	8:00	15.32	-26,300	0.13	+
8/3/17	9:00	15.38	-26,360	0.17	
8/3/17	10:00	15.29	-26,420	0.19	
8/3/17	11:00	15.29	-26,480	0.10	
0/3/1/	11.00	10.01	20,700	0.10	

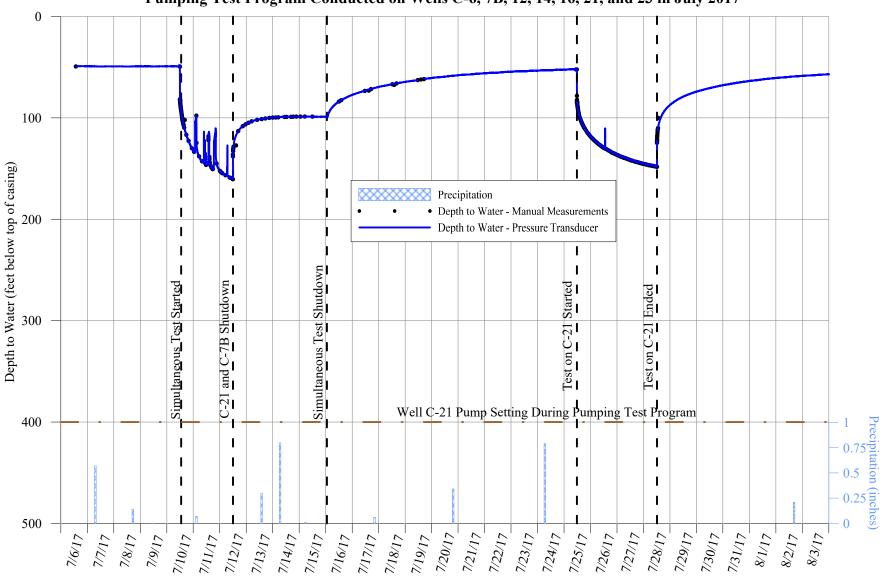
Summary of Water-Level Measurements from Pressure Transducer Installed in Well C-16 Collected During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
8/3/17	12:00	15.36	-26,540	0.17	
8/3/17	13:00	15.29	-26,600	0.09	
8/3/17	14:00	15.31	-26,660	0.12	
8/3/17	15:00	15.20	-26,720	0.01	
8/3/17	16:00	15.23	-26,780	0.04	
8/3/17	17:00	15.21	-26,840	0.02	
8/3/17	18:00	15.14	-26,900	-0.05	
8/3/17	19:00	15.21	-26,960	0.02	
8/3/17	20:00	15.18	-27,020	-0.01	
8/3/17	21:00	15.22	-27,080	0.03	
8/3/17	22:00	15.23	-27,140	0.04	
8/3/17	23:00	15.26	-27,200	0.07	

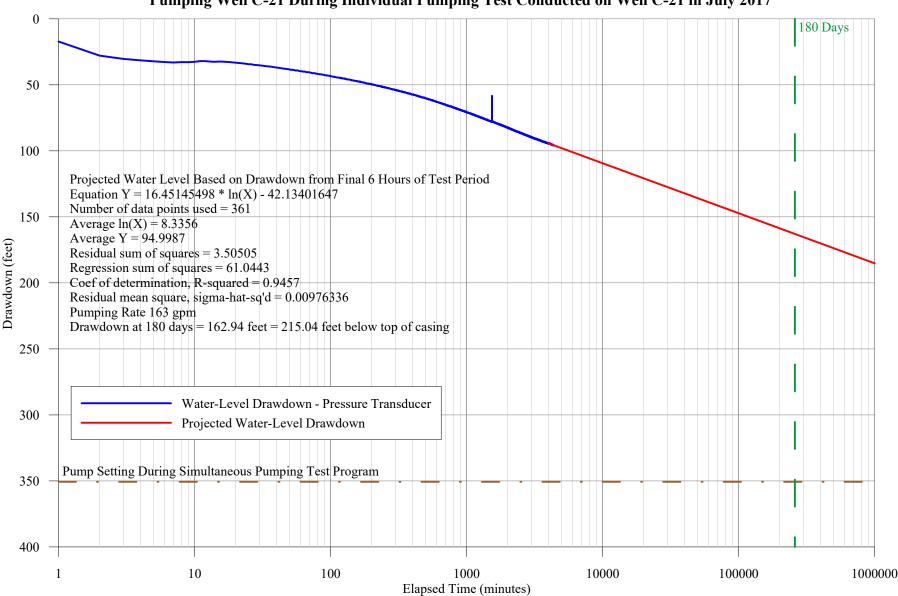
ft btoc feet below top of casing gpm gallons per minute

H:\Lake Anne\Clovewood\2017\July Pumping Test Report\C-16 Table.docx

Hydrograph of Water-Level Measurements Collected from Pumping Well C-21 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



180-Day Water-Level Drawdown Projection on Pumping Well C-21 from Water-Level Measurements Collected from Pumping Well C-21 During Individual Pumping Test Conducted on Well C-21 in July 2017



Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
7/6/17	14:00	49.09			Pressure transducer installed in well.
7/6/17	15:00	49.00			
7/6/17	16:00	48.97	-		
7/6/17	17:00	48.95	-		
7/6/17	18:00	48.94			
7/6/17	19:00	48.95			
7/6/17	20:00	48.96			
7/6/17	21:00	48.99			
7/6/17	22:00	49.00			
7/6/17	23:00	49.02			
7/7/17	0:00	49.01			
7/7/17	1:00	49.02			
7/7/17	2:00	49.01			
7/7/17	3:00	49.02			
7/7/17	4:00	49.02			
7/7/17	5:00	49.04			
7/7/17	6:00	49.07			
7/7/17	7:00	49.12			
7/7/17	8:00	49.17			
7/7/17	9:00	49.22			
7/7/17	10:00	49.26			
7/7/17	11:00	49.29			
7/7/17	12:00	49.31			
7/7/17	13:00	49.36			
7/7/17	14:00	49.27			
7/7/17	15:00	49.23			
7/7/17	16:00	49.21			
7/7/17	17:00	49.17			
7/7/17 7/7/17	18:00 19:00	49.16 49.14			
7/7/17	20:00	49.14			
7/7/17	21:00	49.18			
7/7/17	22:00	49.18			
7/7/17	23:00	49.18			
7/8/17	0:00	49.18			
7/8/17	1:00	49.18			
7/8/17	2:00	49.16	 		
7/8/17	3:00	49.13			
7/8/17	4:00	49.11			
7/8/17	5:00	49.11			
7/8/17	6:00	49.11			
7/8/17	7:00	49.15			
7/8/17	8:00	49.19			
7/8/17	9:00	49.24			
7/8/17	10:00	49.30			
7/8/17	11:00	49.33			
7/8/17	12:00	49.35			
7/8/17	13:00	49.34			
7/8/17	14:00	49.31			
7/8/17	15:00	49.28			
7/8/17	16:00	49.24			
7/8/17	17:00	49.18			
7/8/17	18:00	49.14			
7/8/17	19:00	49.12			

Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
7/8/17	20:00	49.10			
7/8/17	21:00	49.11			
7/8/17	22:00	49.11			
7/8/17	23:00	49.11			
7/9/17	0:00	49.11			
7/9/17	1:00	49.11			
7/9/17	2:00	49.07	-	Ŧ	
7/9/17	3:00	49.04			
7/9/17	4:00	49.02			
7/9/17	5:00	48.99			
7/9/17	6:00	48.99			
7/9/17	7:00	48.99			
7/9/17	8:00	49.01			
7/9/17	9:00	49.08			
7/9/17	10:00	49.14			
7/9/17	11:00	49.19			
7/9/17	12:00	49.21	-		
7/9/17	13:00	49.22			
7/9/17	14:00	49.21			
7/9/17	15:00	49.19			
7/9/17	16:00	49.14			
7/9/17	17:00	49.10			
7/9/17	18:00	49.08			
7/9/17	19:00	49.05			
7/9/17	20:00	49.07			
7/9/17 7/9/17	21:00	49.07 49.09			
7/9/17 7/10/17	23:00 0:00	49.10 49.10			
7/10/17	1:00	49.10			
7/10/17	2:00	49.09			
7/10/17	3:00	49.07		 	
7/10/17	4:00	49.04			
7/10/17	5:00	49.00			
7/10/17	6:00	49.00			
7/10/17	7:00	49.02			
7/10/17	8:00	49.04			
7/10/17	9:00	49.08			
7/10/17	10:00	49.13			
7/10/17	11:00	49.19			
7/10/17	11:54	49.30			
7/10/17	11:55	71.44	1	22.14	Pump in well C-21 started.
7/10/17	11:56	81.00	2	31.70	Pumping rate adjusted to 138 gpm.
7/10/17	11:57	82.80	3	33.50	t0'lanca to 100 Shw.
7/10/17	11:58	82.82	4	33.52	
7/10/17	11:59	83.08	5	33.78	Pumping rate in well C-21 138 gpm.
7/10/17	12:00	82.16	6	32.86	
7/10/17	12:01	81.71	7	32.41	
7/10/17	12:02	81.78	8	32.48	
7/10/17	12:03	81.94	9	32.64	
7/10/17	12:04	82.37	10	33.07	
7/10/17	12:05	82.45	11	33.15	Pumping rate in well C-21 138 gpm.
7/10/17	12:06	82.71	12	33.41	
7/10/17	12:07	83.36	13	34.06	
			-		1

Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
7/10/17	12:08	83.57	14	34.27	
7/10/17	12:09	83.71	15	34.41	
7/10/17	12:10	84.08	16	34.78	Pumping rate in well C-21 138 gpm.
7/10/17	12:15	85.53	21	36.23	
7/10/17	12:20	86.53	26	37.23	Pumping rate in well C-21 138 gpm.
7/10/17	12:25	87.46	31	38.16	
7/10/17	12:30	88.20	36	38.90	Pumping rate in well C-21 138 gpm.
7/10/17	12:35	89.24	41	39.94	7 11 2 21 122
7/10/17	12:40	89.72	46	40.42	Pumping rate in well C-21 138 gpm.
7/10/17	12:45	90.41	51	41.11	D : 11 C 21 120
7/10/17	12:50	90.95	56	41.65	Pumping rate in well C-21 138 gpm.
7/10/17 7/10/17	12:55 13:00	91.46 92.29	61 66	42.16 42.99	Pump in well C-23 started at 12:59.
7/10/17	14:00	100.37	126	51.07	Pump in well C-23 started at 12:39.
7/10/17	15:00	105.87	186	56.57	Pumping rate in well C-21 138 gpm.
7/10/17	16:00	110.27	246	60.97	rumping rate in wen C-21 138 gpin.
7/10/17	17:00	114.33	306	65.03	Pump in well C-14 started at 16:24.
7/10/17	18:00	117.68	366	68.38	Pump in well C-16 started at 17:31.
7/10/17	19:00	120.76	426	71.46	Pump in well C-6 started at 18:35.
7/10/17	20:00	123.55	486	74.25	Pump in well C-12 started at 19:48.
7/10/17	21:00	126.23	546	76.93	Pump in well C-7B started at 21:03.
7/10/17	22:00	128.56	606	79.26	1
7/10/17	23:00	130.77	666	81.47	Pumping rate in well C-21 137 gpm.
7/11/17	0:00	132.59	726	83.29	
7/11/17	1:00	133.85	786	84.55	Pumping rate in well C-21 137 gpm.
7/11/17	1:37	115.70	823	66.40	Generator shut down.
7/11/17	2:00	102.97	846	53.67	
7/11/17	2:53	111.62	899	62.32	Generator restarted.
7/11/17	3:00	125.31	906	76.01	Pumping rate in well C-21 142 gpm.
7/11/17	4:00	134.30	966	85.00	
7/11/17	5:00	137.74	1,026	88.44	Pumping rate in well C-21 142 gpm.
7/11/17	6:00	139.74	1,086	90.44	
7/11/17	7:00	141.87	1,146	92.57	D : 11 G 21 140
7/11/17	8:00	143.17	1,206	93.87	Pumping rate in well C-21 140 gpm.
7/11/17	9:00	143.82	1,266	94.52	Pumping rate in well C-21 140 gpm.
7/11/17 7/11/17	9:38 9:41	133.39	1,304 1,307	84.09 64.33	Generator shut down.
7/11/17	10:00	113.63 143.77	1,307	94.47	Generator restarted. Pumping rate in well C-21 140 gpm.
7/11/17	10:00	121.74	1,357	72.44	Generator shut down.
7/11/17	10:32	139.56	1,358	90.26	Generator shut down. Generator restarted.
7/11/17	11:00	145.41	1,386	96.11	Pumping rate in well C-21 140 gpm.
7/11/17	12:00	145.98	1,446	96.68	Pumping rate in well C-21 140 gpm.
7/11/17	13:00	144.95	1,506	95.65	Pumping rate in well C-21 140 gpm.
7/11/17	13:45	138.34	1,551	89.04	Generator shut down.
7/11/17	14:00	115.47	1,566	66.17	
7/11/17	14:29	130.79	1,595	81.49	Generator restarted.
7/11/17	15:00	143.98	1,626	94.68	Pumping rate in well C-21 140 gpm.
7/11/17	16:00	147.57	1,686	98.27	Pumping rate in well C-21 140 gpm.
7/11/17	17:00	149.69	1,746	100.39	Pumping rate in well C-21 140 gpm.
7/11/17	18:00	150.70	1,806	101.40	Pumping rate in well C-21 140 gpm.
7/11/17	18:42	132.95	1,848	83.65	Generator shut down.
7/11/17	19:00	122.07	1,866	72.77	
7/11/17	20:00	114.32	1,926	65.02	
7/11/17	20:20	110.44	1,946	61.14	Generator restarted.

	Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
	7/11/17	21:00	143.85		94.55	Pumping rate in well C-21 140 gpm.
					98.94	
	7/11/17	23:00	150.39	2,106	101.09	
171217 1:00 153.28 2.226 103.98 Pumping rate in well C-21 140 gpm. 171217 2:00 154.27 2.286 104.97 Pumping rate in well C-21 140 gpm. 171217 3:00 155.12 2.346 105.82 Pumping rate in well C-21 140 gpm. 171217 3:00 156.46 2.466 106.55 Pumping rate in well C-21 140 gpm. 171217 3:00 156.46 2.466 107.16 Pumping rate in well C-21 140 gpm. 171217 3:00 156.48 2.526 107.33 Pumping rate in well C-21 140 gpm. 171217 3:04 148.04 2.575 98.74 Generator shated 171217 3:05 3:05.47 2.586 107.33 Pumping rate in well C-21 140 gpm. 171217 3:06 155.47 2.586 106.17 Pumping rate in well C-21 140 gpm. 171217 3:00 155.47 2.586 106.17 Pumping rate in well C-21 140 gpm. 171217 3:00 157.72 2.646 108.42 Pumping rate in well C-21 140 gpm. 171217 10:00 158.48 2.706 109.18 Pumping rate in well C-21 140 gpm. 171217 11:00 159.48 2.826 110.18 Pumping rate in well C-21 140 gpm. 171217 11:56 160.22 2.882 110.92 Pumping rate in well C-21 140 gpm. 171217 11:57 143.46 -1 94.16 Pumping rate in well C-21 140 gpm. 171217 11:59 136.68 -3 87.38 171217 12:00 136.67 -4 87.37 171217 12:01 136.12 -5 86.82 171217 12:02 135.54 -6 86.24 171217 12:04 134.52 -8 85.22 171217 12:05 134.14 -9 84.45 171217 12:06 133.75 -10 84.45 171217 12:07 133.36 -11 84.06 171217 12:08 133.02 -12 83.72 171217 12:08 133.02 -12 83.72 171217 12:07 133.06 -1 84.06 171217 12:08 133.02 -19 81.72 171217 12:08 133.02 -19 81.72 171217 12:09 136.68 -3 83.38 171217 12:01 132.08 -14 80.64 171217 12:01 132.08 -15 82.78 171217 12:01 132.08 -15 82.78 171217 12:01 13.19 -16 82.49 171217 12:01 13.19 -16 82.49 171217 12:01 13.0						
7/12/17 2:00 154:27 2.286 104:97 Pumping rate in well C-21 140 gpm. 7/12/17 3:00 155:12 2.346 105:82 Pumping rate in well C-21 140 gpm. 7/12/17 3:00 156:46 2.466 106:55 Pumping rate in well C-21 140 gpm. 7/12/17 3:00 156:46 2.466 107:16 Pumping rate in well C-21 140 gpm. 7/12/17 3:00 156:46 2.466 107:16 Pumping rate in well C-21 140 gpm. 7/12/17 3:00 156:46 2.466 107:15 Pumping rate in well C-21 140 gpm. 7/12/17 3:00 156:68 149:90 2.582 100:60 Generator shut down. 7/12/17 3:05 148:04 2.575 98:74 Generator shut down. 7/12/17 7:00 155:47 2.586 106:17 Pumping rate in well C-21 140 gpm. 7/12/17 7:00 155:47 2.586 106:17 Pumping rate in well C-21 140 gpm. 7/12/17 9:00 158:48 2.706 109:18 Pumping rate in well C-21 140 gpm. 7/12/17 10:00 158:96 2.766 109:18 Pumping rate in well C-21 140 gpm. 7/12/17 10:00 159:48 2.826 110:18 Pumping rate in well C-21 140 gpm. 7/12/17 11:56 160:22 2.882 110:92 Pumping rate in well C-21 140 gpm. 7/12/17 11:55 143:46 -1 94:16 Pumping rate in well C-21 shut down, test on well C-21 7/12/17 11:58 136:69 -2 87:60 7/12/17 12:00 136:68 -3 87:38 7/12/17 12:00 136:67 -4 87:37 7/12/17 12:00 136:67 -4 87:37 7/12/17 12:00 136:67 -4 87:37 7/12/17 12:00 136:67 -4 87:37 85:70 7/12/17 12:01 134:52 -8 86:52 7/12/17 12:05 134:14 -9 84:45 7/12/17 12:05 134:14 -9 84:45 7/12/17 12:05 134:14 -9 84:45 7/12/17 12:07 133:36 -11 84:06 84:45 7/12/17 12:10 132:28 -14 83:09 7/12/17 12:10 132:28 -14 83:09 7/12/17 12:10 132:29 -14 83:09 7/12/17 12:10 132:29 -14 83:09 7/12/17 12:10 132:29 -14 83:09 7/12/17 12:10 132:39 -14 83:09 7/12/17 12:10 132:30 -12 83:77 7/12/17 12:10 13:00 12:44 -64 74:48 74:18 74:18 74:1						
7/12/17 3-00 155.12 2.346 105.82 Pumping rate in well C-21 140 gm. 7/12/17 4-00 155.85 2.406 106.55 Pumping rate in well C-21 140 gm. 7/12/17 5:00 156.46 2.466 107.16 Pumping rate in well C-21 140 gm. 7/12/17 6:09 156.83 2.526 107.53 Pumping rate in well C-21 140 gm. 7/12/17 6:09 148.04 2.575 98.74 Generator work down. Generator work down. 7/12/17 6:39 148.04 2.575 98.74 Generator work down. Generator work down. 7/12/17 6:36 149.90 2.582 100.60 Generator restarted. 7/12/17 7/12/17 8:00 157.72 2.646 108.42 Pumping rate in well C-21 140 gm. 7/12/17 8:00 157.72 2.646 108.42 Pumping rate in well C-21 140 gm. 7/12/17 10:00 158.86 2.766 109.66 Pumping rate in well C-21 140 gm. 7/12/17 10:00 159.48 2.326 110.18 Pumping rate in well C-21 140 gm. 7/12/17 11:56 160.22 2.882 110.92 Pumpin well C-21 140 gm. 7/12/17 11:57 143.46 -1 94.16			154.27		104.97	
7/12/17 4-00 155.85 2.406 106.55 Pumping rate in well C-21 140 gpm. 7/12/17 5-00 156.46 2.466 107.16 Pumping rate in well C-21 140 gpm. 7/12/17 6-00 156.83 2.526 107.53 Pumping rate in well C-21 140 gpm. 7/12/17 6-49 148.04 2.575 98.74 Generator shut down. 7/12/17						
7/12/17 5:00 156.46 2,466 107.16 Pumping rate in well C-21 140 gpm. 7/12/17 6:09 156.83 2,326 107.53 Pumping rate in well C-21 140 gpm. 7/12/17 6:49 148.04 2,575 98.74 Generator shut down. 7/12/17 7:00 155.47 2,586 106.61 Pumping rate in well C-21 140 gpm. 7/12/17 7:00 155.47 2,586 106.61 Pumping rate in well C-21 140 gpm. 7/12/17 8:00 157.72 2,646 108.42 Pumping rate in well C-21 140 gpm. 7/12/17 9:00 158.48 2,706 109.18 Pumping rate in well C-21 140 gpm. 7/12/17 10:00 158.96 2,766 109.66 Pumping rate in well C-21 140 gpm. 7/12/17 11:50 159.48 2,826 110.18 Pumping rate in well C-21 140 gpm. 7/12/17 11:56 160.22 2,882 110.92 Pumping rate in well C-21 140 gpm. 7/12/17 11:57 143.46 -1 94.16 Pumping rate in well C-21 140 gpm. 7/12/17 11:58 136.90 -2 87.60 Pumping rate in well C-21 ended. 7/12/17 11:59 136.68 -3 87.38 7/12/17 12:00 136.67 -4 87.37 87.12/17 12:00 136.67 -4 87.37 Pumping rate in well C-21 cnded. 7/12/17 12:01 136.12 -5 86.82 7/12/17 12:02 135.54 -6 86.24 7/12/17 12:03 135.00 -7 85.70 7/12/17 12:04 134.52 -8 85.22 7/12/17 12:06 133.75 -10 84.45 7/12/17 12:06 133.75 -10 84.45 7/12/17 12:07 132.08 -12 83.72 7/12/17 12:08 133.02 -12 83.72 7/12/17 12:09 132.68 -13 83.38 7/12/17 12:09 132.68 -13 83.38 7/12/17 12:10 132.29 -14 83.09 7/12/17 12:11 131.02 -19 81.72 7/12/17 12:12 131.79 -16 82.49 7/12/17 12:14 131.26 -18 81.96 7/12/17 12:15 131.02 -19 81.72 7/12/17 12:14 131.26 -18 81.96 7/12/17 12:15 131.02 -19 81.72 7/12/17 12:15 131.02 -19 81.72 7/12/17 12:15 131.02 -19 81.72 7/12/17 12:15 131.02 -19 81.72 7/12/17 12:15 131.02 -19 81.72 7/12/17 12:10 132.39 7/12/17 12:20 12:25 12:80 -29 7/5.59 7/12/17 12:30						
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7/12/17 6:56 149.90 2.582 100.60 Generator restarted. 7/12/17 7:00 155.47 2.586 106.17 Pumping rate in well C-21 140 gpm. 7/12/17 8:00 157.72 2.646 108.42 Pumping rate in well C-21 140 gpm. 7/12/17 9:00 158.48 2.706 109.18 Pumping rate in well C-21 140 gpm. 7/12/17 10:00 158.96 2.766 109.66 Pumping rate in well C-21 140 gpm. 7/12/17 11:00 159.48 2.826 110.18 Pumping rate in well C-21 140 gpm. 7/12/17 11:56 160.22 2.882 110.92 Pumping rate in well C-21 140 gpm. 7/12/17 11:57 143.46 -1 94.16 ended. 94.16 ended. 7/12/17 11:58 136.90 -2 87.60 87.38 ended. 7/12/17 11:59 136.68 -3 87.38 87.38 7/12/17 12:00 136.67 -4 87.37 7/12/17 12:00 136.67 -4 87.37 7/12/17 12:01 136.12 -5 86.82 7/12/17 12:02 135.54 -6 86.24 7/12/17 12:03 135.00 -7 85.70 7/12/17 12:05 134.14 -9 84.48 7/12/17 12:06 133.75 -10 84.45 7/12/17 12:08 133.02 -12 83.372 7/12/17 12:09 132.68 -13 83.38 7/12/17 12:09 132.68 -13 83.38 7/12/17 12:09 132.68 -13 83.38 7/12/17 12:09 132.68 -13 83.38 7/12/17 12:09 132.68 -13 83.38 7/12/17 12:01 132.39 -14 83.09 7/12/17 12:10 132.39 -14 83.09 7/12/17 12:11 132.08 -15 82.28 7/12/17 12:14 131.26 -18 81.96 7/12/17 12:15 131.02 -19 81.72 7/12/17 12:25 128.90 -29 79.60 7/12/17 12:26 128.90 -29 79.60 7/12/17 12:27 12:28 139.90 -24 80.64 7/12/17 12:25 128.90 -29 79.60 7/12/17 12:26 128.90 -29 79.60 7/12/17 12:27 12:28 12:28 -39 77.98 77.98 77.12/17 12:30 128.07 -34 78.77 77.12/17 12:30 128.07 -34 78.77 77.12/17 12:30 128.07 -34 78.77 77.12/17 12:30 128.07 -34 78.77 77.12/17 12:30 128.07 -34 78.77 77.12/17 12:30 128.07 -34 78.77 77.12/17 12:30 128.07 -34 78.7				2,575		
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7/12/17 20:00 108.89 -484 59.59	7/12/17		108.89		59.59	

Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
7/12/17	21:00	107.97	-544	58.67	
7/12/17	22:00	107.16	-604	57.86	
7/12/17	23:00	106.48	-664	57.18	
7/13/17	0:00	105.85	-724	56.55	
7/13/17	1:00	105.29	-784	55.99	
7/13/17	2:00	104.78	-844	55.48	
7/13/17	3:00	104.29	-904	54.99	
7/13/17	4:00	103.85	-964	54.55	
7/13/17	5:00	103.41	-1,024	54.11	
7/13/17	6:00	103.01	-1,084	53.71	
7/13/17	7:00	102.67	-1,144	53.37	
7/13/17	8:00	102.36	-1,204	53.06	
7/13/17	9:00	102.08	-1,264	52.78	
7/13/17	10:00	101.85	-1,324	52.55	
7/13/17	11:00	101.65	-1,384	52.35	
7/13/17	12:00	101.46	-1,444	52.16	
7/13/17	13:00	101.28	-1,504	51.98	
7/13/17	14:00	101.08	-1,564	51.78	
7/13/17	15:00	100.90	-1,624	51.60	
7/13/17	16:00	100.70	-1,684	51.40	
7/13/17	17:00	100.52	-1,744	51.22	
7/13/17	18:00	100.36	-1,804	51.06	
7/13/17 7/13/17	19:00 20:00	100.20	-1,864	50.90	
,		100.05	-1,924	50.75	
7/13/17 7/13/17	21:00 22:00	99.88 99.77	-1,984 -2,044	50.58 50.47	
7/13/17	23:00	99.77	-2,104	50.40	
7/14/17	0:00	99.62	-2,164	50.32	
7/14/17	1:00	99.56	-2,104	50.26	
7/14/17	2:00	99.51	-2,284	50.21	
7/14/17	3:00	99.42	-2,344	50.12	
7/14/17	4:00	99.33	-2,404	50.03	
7/14/17	5:00	99.25	-2,464	49.95	
7/14/17	6:00	99.17	-2,524	49.87	
7/14/17	7:00	99.04	-2,584	49.74	
7/14/17	8:00	98.98	-2,644	49.68	
7/14/17	9:00	98.92	-2,704	49.62	
7/14/17	10:00	98.90	-2,764	49.60	
7/14/17	11:00	98.88	-2,824	49.58	
7/14/17	12:00	98.88	-2,884	49.58	
7/14/17	13:00	98.87	-2,944	49.57	
7/14/17	14:00	98.87	-3,004	49.57	
7/14/17	15:00	98.85	-3,064	49.55	
7/14/17	16:00	98.83	-3,124	49.53	
7/14/17	17:00	98.80	-3,184	49.50	
7/14/17	18:00	98.74	-3,244	49.44	
7/14/17	19:00	98.71	-3,304	49.41	
7/14/17	20:00	98.66	-3,364	49.36	
7/14/17	21:00	98.65	-3,424	49.35	
7/14/17	22:00	98.60	-3,484	49.30	
7/14/17	23:00	98.61	-3,544	49.31	
7/15/17	0:00	98.65	-3,604	49.35	
7/15/17	1:00	98.64	-3,664	49.34	
7/15/17	2:00	98.67	-3,724	49.37	

Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
7/15/17	3:00	98.66	-3,784	49.36	
7/15/17	4:00	98.69	-3,844	49.39	
7/15/17	5:00	98.66	-3,904	49.36	
7/15/17	6:00	98.67	-3,964	49.37	
7/15/17	7:00	98.70	-4,024	49.40	
7/15/17	8:00	98.63	-4,084	49.33	
7/15/17	9:00	98.63	-4,144	49.33	
7/15/17	10:00	98.67	-4,204	49.37	
7/15/17	11:00	98.69	-4,264	49.39	
7/15/17	12:00	98.73	-4,324	49.43	
7/15/17	13:00	98.77	-4,384	49.47	
7/15/17	14:00	98.80	-4,444	49.50	
7/15/17	15:00	98.81	-4,504	49.51	
7/15/17	16:00	98.82	-4,564	49.52	
7/15/17	17:00	98.84	-4,624	49.54	
7/15/17	18:00	98.84	-4,684	49.54	
7/15/17	19:00	98.89	-4,744	49.59	
7/15/17	20:00	98.81	-4,804	49.51	
7/15/17	21:00	98.81	-4,864	49.51	
7/15/17	22:00	98.79	-4,924	49.49	
7/15/17	23:00	98.81	-4,984	49.51	
7/16/17	0:00	98.86	-5,044	49.56	
7/16/17 7/16/17	1:00	98.89 98.89	-5,104 -5,113	49.59 49.59	Shut down of simultaneous pumping test (wells C-6, 12, 14,16, and 23).
7/16/17	2:00	98.28	-5,164	48.98	12, 11,10, and 20).
7/16/17	3:00	94.74	-5,224	45.44	
7/16/17	4:00	92.58	-5,284	43.28	
7/16/17	5:00	90.93	-5,344	41.63	
7/16/17	6:00	89.54	-5,404	40.24	
7/16/17	7:00	88.32	-5,464	39.02	
7/16/17	8:00	87.26	-5,524	37.96	
7/16/17	9:00	86.30	-5,584	37.00	
7/16/17	10:00	85.43	-5,644	36.13	
7/16/17	11:00	84.67	-5,704	35.37	
7/16/17	12:00	83.89	-5,764	34.59	
7/16/17	13:00	83.18	-5,824	33.88	
7/16/17	14:00	82.55	-5,884	33.25	
7/16/17	15:00	81.93	-5,944	32.63	
7/16/17	16:00	81.40	-6,004	32.10	
7/16/17	17:00	80.83	-6,064	31.53	
7/16/17	18:00	80.28	-6,124	30.98	
7/16/17	19:00	79.75	-6,184	30.45	
7/16/17	20:00	79.22	-6,244	29.92	
7/16/17	21:00	78.72	-6,304	29.42	
7/16/17	22:00	78.23	-6,364	28.93	
7/16/17	23:00	77.77	-6,424	28.47	
7/17/17	0:00	77.34	-6,484	28.04	
7/17/17	1:00	76.92	-6,544	27.62	
7/17/17	2:00	76.53	-6,604	27.23	
7/17/17	3:00	76.15	-6,664	26.85	
7/17/17	4:00	75.80	-6,724	26.50	
7/17/17	5:00	75.44	-6,784	26.14	
7/17/17	6:00	75.07	-6,844	25.77	

Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
7/17/17	7:00	74.69	-6,904	25.39	
7/17/17	8:00	74.33	-6,964	25.03	
7/17/17	9:00	73.98	-7,024	24.68	
7/17/17	10:00	73.62	-7,084	24.32	
7/17/17	11:00	73.28	-7,144	23.98	
7/17/17	12:00	72.94	-7,204	23.64	
7/17/17	13:00	72.65	-7,264	23.35	
7/17/17	14:00	72.34	-7,324	23.04	
7/17/17	15:00	72.03	-7,384	22.73	
7/17/17	16:00	71.75	-7,444	22.45	
7/17/17	17:00	71.47	-7,504	22.17	
7/17/17	18:00	71.17	-7,564	21.87	
7/17/17	19:00	70.89	-7,624	21.59	
7/17/17	20:00	70.56	-7,684	21.26	
7/17/17	21:00	70.33	-7,744	21.03	
7/17/17	22:00	70.03	-7,804	20.73	
7/17/17	23:00	69.75	-7,864 7,024	20.45	
7/18/17	0:00	69.48	-7,924	20.18	
7/18/17	1:00	69.24	-7,984	19.94	
7/18/17	2:00	69.01	-8,044	19.71	
7/18/17	3:00	68.81	-8,104	19.51	
7/18/17	4:00	68.58 68.38	-8,164 -8,224	19.28 19.08	
7/18/17	5:00 6:00	68.18	-8,224 -8,284	19.08	
7/18/17	7:00	67.95	-8,344	18.65	
7/18/17	8:00	67.73	-8,404	18.43	
7/18/17	9:00	67.50	-8,464	18.20	
7/18/17	10:00	67.27	-8,524	17.97	
7/18/17	11:00	67.04	-8,584	17.74	
7/18/17	12:00	66.80	-8,644	17.50	
7/18/17	13:00	66.58	-8,704	17.28	
7/18/17	14:00	66.37	-8,764	17.07	
7/18/17	15:00	66.17	-8,824	16.87	
7/18/17	16:00	65.98	-8,884	16.68	
7/18/17	17:00	65.79	-8,944	16.49	
7/18/17	18:00	65.61	-9,004	16.31	
7/18/17	19:00	65.42	-9,064	16.12	
7/18/17	20:00	65.23	-9,124	15.93	
7/18/17	21:00	64.99	-9,184	15.69	
7/18/17	22:00	64.84	-9,244	15.54	
7/18/17	23:00	64.64	-9,304	15.34	
7/19/17	0:00	64.47	-9,364	15.17	
7/19/17	1:00	64.28	-9,424	14.98	
7/19/17	2:00	64.11	-9,484	14.81	
7/19/17	3:00	63.96	-9,544	14.66	
7/19/17	4:00	63.80	-9,604	14.50	
7/19/17	5:00	63.68	-9,664	14.38	
7/19/17	6:00	63.54	-9,724	14.24	
7/19/17	7:00	63.41	-9,784	14.11	
7/19/17	8:00	63.27	-9,844	13.97	
7/19/17	9:00	63.13	-9,904	13.83	
7/19/17	10:00	62.97	-9,964	13.67	
7/19/17	11:00	62.77	-10,024	13.47	
7/19/17	17:06	61.51	-10,036	12.21	

Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
7/19/17	18:00	61.45	-10,090	12.15	
7/19/17	19:00	61.35	-10,150	12.05	
7/19/17	20:00	61.21	-10,210	11.91	
7/19/17	21:00	61.08	-10,270	11.78	
7/19/17	22:00	60.90	-10,330	11.60	
7/19/17	23:00	60.78	-10,390	11.48	
7/20/17	0:00	60.62	-10,450	11.32	
7/20/17	1:00	60.48	-10,510	11.18	
7/20/17	2:00	60.34	-10,570	11.04	
7/20/17	3:00	60.23	-10,630	10.93	
7/20/17	4:00	60.11	-10,690	10.81	
7/20/17	5:00	60.05	-10,750	10.75	
7/20/17	6:00	59.91	-10,810	10.61	
7/20/17	7:00	59.87	-10,870	10.57	
7/20/17	8:00	59.79	-10,930	10.49	
7/20/17	9:00	59.70	-10,990	10.40	
7/20/17	10:00	59.60	-11,050	10.30	
7/20/17	11:00	59.47	-11,110	10.17	
7/20/17	12:00	59.38	-11,170	10.08	
7/20/17	13:00	59.21	-11,230	9.91	
7/20/17	14:00	59.06	-11,290	9.76	
7/20/17 7/20/17	15:00	58.91	-11,350	9.61	
7/20/17	16:00 17:00	58.78 58.64	-11,410 -11,470	9.48 9.34	
7/20/17	18:00		-11,530	9.34	
7/20/17	19:00	58.54 58.45	-11,590	9.15	
7/20/17	20:00	58.40	-11,650	9.10	
7/20/17	21:00	58.28	-11,710	8.98	
7/20/17	22:00	58.17	-11,770	8.87	
7/20/17	23:00	58.11	-11,830	8.81	
7/21/17	0:00	57.93	-11,890	8.63	
7/21/17	1:00	57.82	-11,950	8.52	
7/21/17	2:00	57.73	-12,010	8.43	
7/21/17	3:00	57.61	-12,070	8.31	
7/21/17	4:00	57.51	-12,130	8.21	
7/21/17	5:00	57.42	-12,190	8.12	
7/21/17	6:00	57.39	-12,250	8.09	
7/21/17	7:00	57.32	-12,310	8.02	
7/21/17	8:00	57.27	-12,370	7.97	
7/21/17	9:00	57.26	-12,430	7.96	
7/21/17	10:00	57.20	-12,490	7.90	
7/21/17	11:00	57.16	-12,550	7.86	
7/21/17	12:00	57.05	-12,610	7.75	
7/21/17	13:00	56.96	-12,670	7.66	
7/21/17	14:00	56.80	-12,730	7.50	
7/21/17	15:00	56.75	-12,790	7.45	
7/21/17	16:00	56.56	-12,850	7.26	
7/21/17	17:00	56.43	-12,910	7.13	
7/21/17	18:00	56.37	-12,970	7.07	
7/21/17	19:00	56.31	-13,030	7.01	
7/21/17	20:00	56.31	-13,090	7.01	
7/21/17	21:00	56.22	-13,150	6.92	
7/21/17	22:00	56.18	-13,210	6.88	
7/21/17	23:00	56.09	-13,270	6.79	

Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
7/22/17	0:00	56.04	-13,330	6.74	
7/22/17	1:00	55.95	-13,390	6.65	
7/22/17	2:00	55.85	-13,450	6.55	
7/22/17	3:00	55.76	-13,510	6.46	
7/22/17	4:00	55.69	-13,570	6.39	
7/22/17	5:00	55.61	-13,630	6.31	
7/22/17	6:00	55.59	-13,690	6.29	
7/22/17	7:00	55.57	-13,750	6.27	
7/22/17	8:00	55.50	-13,810	6.20	
7/22/17	9:00	55.51	-13,870	6.21	
7/22/17	10:00	55.48	-13,930	6.18	
7/22/17	11:00	55.44	-13,990	6.14	
7/22/17	12:00	55.37	-14,050	6.07	
7/22/17	13:00	55.27	-14,110	5.97	
7/22/17	14:00	55.18	-14,170	5.88	
7/22/17	15:00	55.05	-14,230	5.75	
7/22/17	16:00	54.91	-14,290	5.61	
7/22/17	17:00	54.81	-14,350	5.51	
7/22/17	18:00	54.77	-14,410	5.47	
7/22/17	19:00	54.66	-14,470	5.36	
7/22/17 7/22/17	20:00	54.65 54.58	-14,530 -14,590	5.35 5.28	
7/22/17	22:00	54.55	-14,650	5.25	
7/22/17	23:00	54.50	-14,710	5.20	
7/23/17	0:00	54.47	-14,770	5.17	
7/23/17	1:00	54.41	-14,830	5.17	
7/23/17	2:00	54.32	-14,890	5.02	
7/23/17	3:00	54.20	-14,950	4.90	
7/23/17	4:00	54.14	-15,010	4.84	
7/23/17	5:00	54.07	-15,070	4.77	
7/23/17	6:00	54.05	-15,130	4.75	
7/23/17	7:00	54.02	-15,190	4.72	
7/23/17	8:00	54.00	-15,250	4.70	
7/23/17	9:00	54.06	-15,310	4.76	
7/23/17	10:00	54.04	-15,370	4.74	
7/23/17	11:00	54.04	-15,430	4.74	
7/23/17	12:00	54.02	-15,490	4.72	
7/23/17	13:00	53.93	-15,550	4.63	
7/23/17	14:00	53.85	-15,610	4.55	
7/23/17	15:00	53.81	-15,670	4.51	
7/23/17	16:00	53.69	-15,730	4.39	
7/23/17	17:00	53.60	-15,790	4.30	
7/23/17	18:00	53.51	-15,850	4.21	
7/23/17	19:00	53.47	-15,910	4.17	
7/23/17	20:00	53.41	-15,970	4.11	
7/23/17	21:00	53.44	-16,030	4.14	
7/23/17	22:00	53.38	-16,090	4.08	
7/23/17	23:00	53.39	-16,150	4.09	
7/24/17	0:00	53.33	-16,210	4.03	
7/24/17	1:00	53.28	-16,270	3.98	
7/24/17	2:00	53.24	-16,330	3.94	
7/24/17	3:00	53.15	-16,390	3.85	
7/24/17	4:00	53.07	-16,450	3.77	
7/24/17	5:00	53.00	-16,510	3.70	

Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
7/24/17	6:00	52.99	-16,570	3.69	
7/24/17	7:00	52.92	-16,630	3.62	
7/24/17	8:00	52.89	-16,690	3.59	
7/24/17	9:00	52.91	-16,750	3.61	
7/24/17	10:00	52.95	-16,810	3.65	
7/24/17	11:00	52.98	-16,870	3.68	
7/24/17	12:00	52.92	-16,930	3.62	
7/24/17	13:00	52.96	-16,990	3.66	
7/24/17	14:00	52.84	-17,050	3.54	
7/24/17	15:00	52.72	-17,110	3.42	
7/24/17	16:00	52.68	-17,170	3.38	
7/24/17	17:00	52.62	-17,230	3.32	
7/24/17	18:00	52.53	-17,290	3.23	
7/24/17	19:00	52.46	-17,350	3.16	
7/24/17	20:00	52.43	-17,410	3.13	
7/24/17	21:00	52.36	-17,470	3.06	
7/24/17	22:00	52.38	-17,530	3.08	
7/24/17	23:00	52.35 52.36	-17,590 -17,650	3.05 3.06	
7/25/17 7/25/17	0:00	52.34			
7/25/17	1:00 2:00	52.34	-17,710 -17,770	3.04 2.98	
7/25/17	3:00	52.24	-17,770	2.98	
7/25/17	4:00	52.19	-17,890	2.89	
7/25/17	5:00	52.14	-17,950	2.84	
7/25/17	6:00	52.09	-18,010	2.79	
7/25/17	7:00	52.07	-18,070	2.77	
7/25/17	8:00	52.07	-18,130	2.77	
7/25/17	9:00	52.05	-18,190	2.75	
7/25/17	10:00	52.09	-18,250	2.79	
7/25/17	11:00	52.07	-18,310	2.77	
7/25/17	11:43	52.11	-18,353	2.81	
7/25/17	11:44	69.35	1	17.24	Pump in well C-21 started.
7/25/17	11:45	80.04	2	27.93	Pumping rate adjusted to 173 gpm.
7/25/17	11:46	82.48	3	30.37	1 5 J 51
7/25/17	11:47	83.62	4	31.51	
7/25/17	11:48	84.30	5	32.19	
7/25/17	11:49	84.85	6	32.74	
7/25/17	11:50	85.17	7	33.06	Pumping rate in well C-21 173 gpm.
7/25/17	11:51	84.91	8	32.80	
7/25/17	11:52	84.94	9	32.83	
7/25/17	11:53	84.65	10	32.54	
7/25/17	11:54	84.12	11	32.01	
7/25/17	11:55	84.14	12	32.03	Pumping rate in well C-21 173 gpm.
7/25/17	11:56	84.50	13	32.39	
7/25/17	11:57	84.71	14	32.60	
7/25/17	11:58	84.47	15	32.36	
7/25/17	11:59	84.52	16	32.41	
7/25/17	12:00	84.70	17	32.59	Pumping rate in well C-21 173 gpm.
7/25/17	12:05	85.74	22	33.63	
7/25/17	12:10	86.91	27	34.80	Pumping rate in well C-21 173 gpm.
7/25/17	12:15	87.73	32	35.62	
7/25/17	12:20	88.43	37	36.32	Pumping rate in well C-21 173 gpm.
7/25/17	12:25	89.27	42	37.16	D : 11 C 21 172
7/25/17	12:30	90.02	47	37.91	Pumping rate in well C-21 173 gpm.

Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
7/25/17	12:35	90.68	52	38.57	
7/25/17	12:40	91.15	57	39.04	Pumping rate in well C-21 173 gpm.
7/25/17	12:45	91.88	62	39.77	
7/25/17	13:00	93.45	77	41.34	Pumping rate in well C-21 173 gpm.
7/25/17	14:00	98.20	137	46.09	
7/25/17	15:00	101.56	197	49.45	Pumping rate in well C-21 173 gpm.
7/25/17	16:00	104.31	257	52.20	
7/25/17	17:00	106.75	317	54.64	Pumping rate in well C-21 173 gpm.
7/25/17	18:00	108.61	377	56.50	Pumping rate in well C-21 163 gpm.
7/25/17	19:00	110.57	437	58.46	Pumping rate in well C-21 163 gpm.
7/25/17	20:00	112.07	497	59.96	Pumping rate in well C-21 163 gpm.
7/25/17	21:00	113.80	557	61.69	Pumping rate in well C-21 163 gpm.
7/25/17 7/25/17	22:00 23:00	115.23 116.63	617 677	63.12 64.52	Pumping rate in well C-21 163 gpm. Pumping rate in well C-21 163 gpm.
7/26/17	0:00				
7/26/17	1:00	118.06 119.15	737 797	65.95 67.04	Pumping rate in well C-21 163 gpm. Pumping rate in well C-21 163 gpm.
7/26/17	2:00	120.20	857	68.09	Pumping rate in well C-21 163 gpm.
7/26/17	3:00	121.52	917	69.41	Pumping rate in well C-21 163 gpm.
7/26/17	4:00	122.43	977	70.32	Pumping rate in well C-21 163 gpm.
7/26/17	5:00	123.48	1,037	71.37	Pumping rate in well C-21 163 gpm.
7/26/17	6:00	124.52	1,097	72.41	Pumping rate in well C-21 163 gpm.
7/26/17	7:00	125.23	1,157	73.12	Pumping rate in well C-21 163 gpm.
7/26/17	8:00	126.06	1,217	73.95	Pumping rate in well C-21 163 gpm.
7/26/17	9:00	127.14	1,277	75.03	Pumping rate in well C-21 163 gpm.
7/26/17	10:00	127.50	1,337	75.39	Pumping rate in well C-21 163 gpm.
7/26/17	11:00	128.49	1,397	76.38	Pumping rate in well C-21 163 gpm.
7/26/17	12:00	129.12	1,457	77.01	Pumping rate in well C-21 163 gpm.
7/26/17	13:00	129.83	1,517	77.72	Pumping rate in well C-21 163 gpm.
7/26/17	13:18	110.44	1,535	58.33	Generator shut down.
7/26/17	13:19	127.16	1,536	75.05	Generator restarted.
7/26/17	14:00	130.24	1,577	78.13	Pumping rate in well C-21 163 gpm.
7/26/17	15:00	131.05	1,637	78.94	Pumping rate in well C-21 163 gpm.
7/26/17	16:00	131.78	1,697	79.67	Pumping rate in well C-21 163 gpm.
7/26/17	17:00	132.28	1,757	80.17	Pumping rate in well C-21 163 gpm.
7/26/17	18:00	132.62	1,817	80.51	Pumping rate in well C-21 163 gpm.
7/26/17 7/26/17	19:00 20:00	133.27 134.06	1,877 1,937	81.16 81.95	Pumping rate in well C-21 163 gpm. Pumping rate in well C-21 163 gpm.
7/26/17	21:00	134.51	1,997	82.40	Pumping rate in well C-21 163 gpm.
7/26/17	22:00	134.92	2,057	82.81	Pumping rate in well C-21 163 gpm.
7/26/17	23:00	135.56	2.117	83.45	Pumping rate in well C-21 163 gpm.
7/27/17	0:00	136.24	2,177	84.13	Pumping rate in well C-21 163 gpm.
7/27/17	1:00	136.72	2,237	84.61	Pumping rate in well C-21 163 gpm.
7/27/17	2:00	137.14	2,297	85.03	Pumping rate in well C-21 163 gpm.
7/27/17	3:00	137.33	2,357	85.22	Pumping rate in well C-21 163 gpm.
7/27/17	4:00	138.03	2,417	85.92	Pumping rate in well C-21 163 gpm.
7/27/17	5:00	138.48	2,477	86.37	Pumping rate in well C-21 163 gpm.
7/27/17	6:00	138.90	2,537	86.79	Pumping rate in well C-21 163 gpm.
7/27/17	7:00	139.32	2,597	87.21	Pumping rate in well C-21 163 gpm.
7/27/17	8:00	139.58	2,657	87.47	Pumping rate in well C-21 163 gpm.
7/27/17	9:00	140.14	2,717	88.03	Pumping rate in well C-21 163 gpm.
7/27/17	10:00	140.50	2,777	88.39	Pumping rate in well C-21 163 gpm.
7/27/17	11:00	141.00	2,837	88.89	Pumping rate in well C-21 163 gpm.
7/27/17	12:00	141.30	2,897	89.19	Pumping rate in well C-21 163 gpm.
7/27/17	13:00	141.67	2,957	89.56	Pumping rate in well C-21 163 gpm.

1727/17 14:00 141:03 3.017 89.85 Pumping rate in well C-2 163 gpm. 1727/17 16:00 142:51 3.077 90.20 Pumping rate in well C-2 163 gpm. 1727/17 16:00 142:52 3.137 90.41 Pumping rate in well C-2 163 gpm. 1727/17 18:00 143:50 3.317 90.90 Pumping rate in well C-2 163 gpm. 1727/17 19:00 143:50 3.317 91.39 Pumping rate in well C-2 163 gpm. 1727/17 19:00 143:50 3.317 91.39 Pumping rate in well C-2 163 gpm. 1727/17 19:00 144:26 3437 92.15 Pumping rate in well C-2 163 gpm. 1727/17 19:00 144:36 3437 92.15 Pumping rate in well C-2 163 gpm. 1727/17 19:00 144:36 3437 92.15 Pumping rate in well C-2 163 gpm. 1727/17 19:00 144:36 3437 92.15 Pumping rate in well C-2 163 gpm. 1727/17 19:00 144:36 3497 92.25 Pumping rate in well C-2 163 gpm. 1727/17 19:00 144:50 3.557 92.48 Pumping rate in well C-2 163 gpm. 1728/17 19:00 145:04 3.617 92.93 Pumping rate in well C-2 163 gpm. 1728/17 19:00 145:04 3.617 92.93 Pumping rate in well C-2 163 gpm. 1728/17 19:00 145:00 3.677 93.11 Pumping rate in well C-2 163 gpm. 1728/17 19:00 145:00 3.737 93.40 Pumping rate in well C-2 163 gpm. 1728/17 30:00 145:00 3.997 93.61 Pumping rate in well C-2 163 gpm. 1728/17 5:00 146:37 3.917 94.16 Pumping rate in well C-2 163 gpm. 1728/17 5:00 146:37 3.917 94.16 Pumping rate in well C-2 163 gpm. 1728/17 5:00 146:37 3.997 94:26 Pumping rate in well C-2 163 gpm. 1728/17 5:00 146:37 3.997 94:26 Pumping rate in well C-2 163 gpm. 1728/17 5:00 146:36 3.991 94:41 Pumping rate in well C-2 163 gpm. 1728/17 19:00 146:36 43:37 59:57 Pumping rate in well C-2 163 gpm. 1728/17 19:00 146:36 43:37 59:57 Pumping rate in well C-2 163 gpm. 1728/17 19:00 147:32 42:17 59:31 Pumping rate in well C-2 163 gpm. 1728/17 12:00 147:36 43	Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
172717 16:00 142.52 3,137 90.41 Pumping rate in well C-21 163 gpm. 172717 17:00 143.01 3,197 90.90 Pumping rate in well C-21 163 gpm. 172717 19:00 143.19 3,257 91.08 Pumping rate in well C-21 163 gpm. 172717 19:00 143.78 3,317 91.39 Pumping rate in well C-21 163 gpm. 172717 20:00 143.78 3,437 91.67 Pumping rate in well C-21 163 gpm. 172717 20:00 144.36 3,437 92.15 Pumping rate in well C-21 163 gpm. 172717 20:00 144.36 3,437 92.15 Pumping rate in well C-21 163 gpm. 172717 20:00 144.36 3,497 92.25 Pumping rate in well C-21 163 gpm. 172717 20:00 144.59 3,557 92.48 Pumping rate in well C-21 163 gpm. 172817 20:00 145.94 3,617 92.93 Pumping rate in well C-21 163 gpm. 172817 20:00 145.04 3,617 93.11 Pumping rate in well C-21 163 gpm. 172817 20:00 145.60 3,737 93.11 Pumping rate in well C-21 163 gpm. 172817 3:00 145.72 3,797 93.61 Pumping rate in well C-21 163 gpm. 172817 3:00 146.27 3,917 94.16 Pumping rate in well C-21 163 gpm. 172817 3:00 146.27 3,917 94.16 Pumping rate in well C-21 163 gpm. 172817 3:00 146.67 3,991 94.41 Pumping rate in well C-21 163 gpm. 172817 5:00 146.46 4.037 94.35 Pumping rate in well C-21 163 gpm. 172817 7:00 146.46 4.037 94.35 Pumping rate in well C-21 163 gpm. 172817 7:00 147.44 4.157 95.33 Pumping rate in well C-21 163 gpm. 172817 1:00 147.52 4.217 95.21 Pumping rate in well C-21 163 gpm. 172817 1:00 147.85 4.357 95.37 Pumping rate in well C-21 163 gpm. 172817 1:00 147.85 4.357 95.33 Pumping rate in well C-21 163 gpm. 172817 1:214 147.85 4.357 95.31 Pumping rate in well C-21 163 gpm. 172817 1:215 142.82 -1 90.71 Pumping rate in well C-21 163 gpm. 172817 1:215 142.82 -1 90.71 Pumping rate in well C-21 163 gpm. 172817 1:216 1:2133 -6 69.22 -7 7 68.66 69.22 7 7 7 7 7 7	7/27/17	14:00	141.96	3,017	89.85	Pumping rate in well C-21 163 gpm.
172717 17:00 143.01 3.197 90.90 Pumping rate in well C-21 163 gpm. 172717 19:00 143.50 3.317 91.39 Pumping rate in well C-21 163 gpm. 172717 20:00 143.50 3.317 91.39 Pumping rate in well C-21 163 gpm. 172717 21:00 144.26 3.437 92.15 Pumping rate in well C-21 163 gpm. 172717 22:00 144.36 3.497 92.25 Pumping rate in well C-21 163 gpm. 172717 22:00 144.36 3.497 92.25 Pumping rate in well C-21 163 gpm. 172717 23:00 144.59 3.557 92.48 Pumping rate in well C-21 163 gpm. 172717 23:00 144.59 3.557 92.48 Pumping rate in well C-21 163 gpm. 172817 100 145.02 3.617 92.93 Pumping rate in well C-21 163 gpm. 172817 200 145.60 3.737 93.41 Pumping rate in well C-21 163 gpm. 172817 200 145.60 3.737 93.49 Pumping rate in well C-21 163 gpm. 172817 200 146.60 3.737 93.49 Pumping rate in well C-21 163 gpm. 172817 500 146.02 3.857 93.91 Pumping rate in well C-21 163 gpm. 172817 500 146.02 3.857 93.91 Pumping rate in well C-21 163 gpm. 172817 614 146.50 3.991 94.41 Pumping rate in well C-21 163 gpm. 172817 614 146.50 3.991 94.41 Pumping rate in well C-21 163 gpm. 172817 800 146.87 4,097 94.26 Pumping rate in well C-21 163 gpm. 172817 800 146.87 4,097 94.76 Pumping rate in well C-21 163 gpm. 172817 10.00 147.32 4,217 95.21 Pumping rate in well C-21 163 gpm. 172817 10.00 147.32 4,217 95.21 Pumping rate in well C-21 163 gpm. 172817 12.14 147.85 4,351 95.75 Pumping rate in well C-21 163 gpm. 172817 12.15 12.26 4.4 4.5 4.3 4.	7/27/17	15:00	142.31	3,077	90.20	Pumping rate in well C-21 163 gpm.
17271/1 18.00	7/27/17	16:00	142.52	3,137	90.41	Pumping rate in well C-21 163 gpm.
172717 19.000 143.50 3.317 91.39 Pumping rate in well C-21 163 gpm. 172717 21.000 143.78 3.377 91.67 Pumping rate in well C-21 163 gpm. 172717 22.000 144.36 3.497 92.25 Pumping rate in well C-21 163 gpm. 172717 22.000 144.36 3.497 92.25 Pumping rate in well C-21 163 gpm. 172717 22.000 144.36 3.497 92.25 Pumping rate in well C-21 163 gpm. 172717 23.000 144.59 3.557 92.48 Pumping rate in well C-21 163 gpm. 172817 1000 145.04 3.617 92.93 Pumping rate in well C-21 163 gpm. 172817 1000 145.02 3.677 93.11 Pumping rate in well C-21 163 gpm. 172817 2000 145.60 3.737 93.49 Pumping rate in well C-21 163 gpm. 172817 3.000 145.72 3.797 93.61 Pumping rate in well C-21 163 gpm. 172817 3.000 145.72 3.397 93.91 Pumping rate in well C-21 163 gpm. 172817 5.000 146.27 3.397 94.16 Pumping rate in well C-21 163 gpm. 172817 5.000 146.37 3.397 94.26 Pumping rate in well C-21 163 gpm. 172817 5.000 146.53 3.991 94.41 Pumping rate in well C-21 163 gpm. 172817 5.000 146.60 3.991 94.41 Pumping rate in well C-21 163 gpm. 172817 5.000 146.87 4.007 94.76 Pumping rate in well C-21 163 gpm. 172817 17.000 146.64 4.037 94.35 Pumping rate in well C-21 163 gpm. 172817 17.000 147.32 4.217 95.21 Pumping rate in well C-21 163 gpm. 172817 17.200 147.86 4.337 95.53 Pumping rate in well C-21 163 gpm. 172817 17.200 147.86 4.337 95.75 Pumping rate in well C-21 163 gpm. 172817 12.100 147.86 4.331 95.74 Pumping rate in well C-21 163 gpm. 172817 12.14 147.85 4.351 95.74 Pumping rate in well C-21 163 gpm. 172817 12.15 12.200 147.86 4.337 95.75 Pumping rate in well C-21 163 gpm. 172817 12.15 12.24 119.40 -10 67.29 172817 12.25 118.97 -11 66.86 11.2223 118.97 -11 66.86 11.2224 119.40 -10 67.29 117.64 -15 65.53 117.36 -16 65.55 117.30 1	7/27/17	17:00	143.01	3,197	90.90	Pumping rate in well C-21 163 gpm.
	7/27/17	18:00	143.19	3,257	91.08	Pumping rate in well C-21 163 gpm.
1/27/17 20:00 143.78 3.377 91.67 Pumping rate in well C-21 163 gpm. 1/27/17 12:100 144.26 3.437 92.15 Pumping rate in well C-21 163 gpm. 1/27/17 23:00 144.36 3.497 92.25 Pumping rate in well C-21 163 gpm. 1/27/17 23:00 144.59 3.557 92.48 Pumping rate in well C-21 163 gpm. 1/27/17 23:00 145.50 3.617 92.93 Pumping rate in well C-21 163 gpm. 1/28/17 1:00 145.52 3.677 93.11 Pumping rate in well C-21 163 gpm. 1/28/17 1:00 145.52 3.677 93.11 Pumping rate in well C-21 163 gpm. 1/28/17 3:00 145.52 3.797 93.61 Pumping rate in well C-21 163 gpm. 1/28/17 3:00 145.72 3.797 93.61 Pumping rate in well C-21 163 gpm. 1/28/17 4:00 146.02 3.857 33.91 Pumping rate in well C-21 163 gpm. 1/28/17 6:00 146.27 3.917 94.16 Pumping rate in well C-21 163 gpm. 1/28/17 6:00 146.37 3.977 94.26 Pumping rate in well C-21 163 gpm. 1/28/17 7:00 146.64 4.037 94.35 Pumping rate in well C-21 163 gpm. 1/28/17 7:00 146.68 4.037 94.35 Pumping rate in well C-21 163 gpm. 1/28/17 7:00 146.68 4.037 94.35 Pumping rate in well C-21 163 gpm. 1/28/17 1:00 147.32 4.217 95.21 Pumping rate in well C-21 163 gpm. 1/28/17 1:00 147.32 4.217 95.33 Pumping rate in well C-21 163 gpm. 1/28/17 1:00 147.52 4.277 95.41 Pumping rate in well C-21 163 gpm. 1/28/17 1:216 147.85 4.337 95.75 Pumping rate in well C-21 163 gpm. 1/28/17 1:216 124.13 -2 72.02 Pumping rate in well C-21 163 gpm. 1/28/17 1:216 124.13 -2 72.02 Pumping rate in well C-21 163 gpm. 1/28/17 1:216 124.13 -2 72.02 Pumping rate in well C-21 163 gpm. 1/28/17 1:216 1:24.84 -3 70.73 Pumping rate in well C-21 163 gpm. 1/28/17 1:219 1:22.02 -5 69.91 Pumping rate in well C-21 163 gpm. 1/28/17 1:219 1:22.02 -5 69.91 Pumping rate in well C-21 163 gpm. 1/28/17 1:221 1:228 1:229 1:226 4 70.51 Pumping rate in w	7/27/17	19:00	143.50	3,317	91.39	
	7/27/17	20:00	143.78	3,377	91.67	
	7/27/17	21:00	144.26	3,437	92.15	Pumping rate in well C-21 163 gpm.
1728/17 1.00	7/27/17	22:00	144.36	3,497	92.25	Pumping rate in well C-21 163 gpm.
1728/17 1:00	7/27/17	23:00	144.59	3,557	92.48	Pumping rate in well C-21 163 gpm.
	7/28/17	0:00	145.04	3,617	92.93	Pumping rate in well C-21 163 gpm.
	7/28/17	1:00	145.22	3,677	93.11	Pumping rate in well C-21 163 gpm.
	7/28/17	2:00	145.60	3,737	93.49	Pumping rate in well C-21 163 gpm.
1728/17 4:00 146.02 3,857 93.91 Pumping rate in well C-21 163 gpm. 7/28/17 5:00 146.27 3,917 94.16 Pumping rate in well C-21 163 gpm. 7/28/17 6:00 146.37 3,977 94.26 Pumping rate in well C-21 163 gpm. 7/28/17 6:14 146.50 3,991 94.41 Pumping rate in well C-21 163 gpm. 7/28/17 7:00 146.46 4,037 94.35 Pumping rate in well C-21 163 gpm. 7/28/17 8:00 146.87 4,097 94.76 Pumping rate in well C-21 163 gpm. 7/28/17 8:00 147.44 4,157 95.33 Pumping rate in well C-21 163 gpm. 7/28/17 10:00 147.32 4,217 95.31 Pumping rate in well C-21 163 gpm. 7/28/17 10:00 147.52 4,217 95.41 Pumping rate in well C-21 163 gpm. 7/28/17 12:00 147.86 4,337 95.75 Pumping rate in well C-21 163 gpm. 7/28/17 12:14 147.85 4,351 95.74 Pumping rate in well C-21 163 gpm. 7/28/17 12:15 142.82 -1 90.71 Pumping rate in well C-21 163 gpm. 7/28/17 12:16 124.13 -2 72.02 7/28/17 12:16 124.13 -2 70.73 7/28/17 12:18 122.62 -4 70.51 7/28/17 12:19 122.02 -5 69.91 7/28/17 12:20 121.33 -6 69.22 7/28/17 12:21 120.77 -7 68.66 7/28/17 12:22 120.22 -8 68.11 7/28/17 12:22 120.22 -8 68.11 7/28/17 12:23 119.88 -9 67.77 7/28/17 12:24 119.40 -10 67.29 7/28/17 12:25 118.97 -11 66.86 7/28/17 12:25 118.97 -11 66.86 7/28/17 12:26 118.58 -12 66.47 7/28/17 12:27 118.24 -13 66.13 7/28/17 12:28 117.98 -14 65.87 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:35 115.99 -21 63.8	7/28/17	3:00	145.72	3,797	93.61	
	7/28/17		146.02		93.91	
		5:00			94.16	
	7/28/17		146.37			
7/28/17 7:00			146.50			1 0
	7/28/17		146.46		94.35	
7/28/17 9:00	7/28/17		146.87	4,097	94.76	
7/28/17 10:00 147.32 4,217 95.21 Pumping rate in well C-21 163 gpm. 7/28/17 11:00 147.52 4,277 95.41 Pumping rate in well C-21 163 gpm. 7/28/17 12:00 147.86 4,337 95.75 Pumping rate in well C-21 163 gpm. 7/28/17 12:14 147.85 4,351 95.74 Pumping rate in well C-21 163 gpm. 7/28/17 12:15 142.82 -1 90.71 Pumping rate in well C-21 shut down, test on well C-21 ended. 7/28/17 12:16 124.13 -2 72.02 7/28/17 12:18 122.62 -4 70.51 7/28/17 12:18 122.62 -4 70.51 7/28/17 12:20 121.33 -6 69.22 7/28/17 12:21 120.77 -7 68.66 7/28/17 12:22 120.27 -8 68.11 7/28/17 12:23 119.88 -9 67.77 7/28/17 12:24 119.40 -10 67.29						
7/28/17 11:00 147.52 4,277 95.41 Pumping rate in well C-21 163 gpm. 7/28/17 12:00 147.86 4,337 95.75 Pumping rate in well C-21 163 gpm. 7/28/17 12:14 147.85 4,351 95.74 Pumping rate in well C-21 163 gpm. 7/28/17 12:15 142.82 -1 90.71 Pumpin rate in well C-21 shut down, test on well C-21 ended. 7/28/17 12:16 124.13 -2 72.02 7/28/17 12:17 122.84 -3 70.73 7/28/17 12:18 122.62 -4 70.51 7/28/17 12:19 122.02 -5 69.91 7/28/17 12:21 12:00 121.33 -6 69.22 7/28/17 12:22 12:01 120.77 -7 68.66 7/28/17 12:22 12:02 2 -8 68.11 7/28/17 12:22 12:02 -8 68.11 7/28/17 12:24 119.40 -10 67.29 <	7/28/17					
7/28/17 12:00 147.86 4,337 95.75 Pumping rate in well C-21 163 gpm. 7/28/17 12:14 147.85 4,351 95.74 Pumping rate in well C-21 163 gpm. 7/28/17 12:15 142.82 -1 90.71 Pump in well C-21 shut down, test on well C-21 ended. 7/28/17 12:16 124.13 -2 72.02 7/28/17 12:17 122.84 -3 70.73 7/28/17 12:18 122.62 -4 70.51 7/28/17 12:19 122.02 -5 69.91 7/28/17 12:21 120.77 -7 68.66 9.17 12:22 120.22 -8 68.11 7/28/17 12:23 119.88 -9 67.77 7/28/17 12:24 119.40 -10 67.29 7/28/17 12:25 118.97 -11 66.86 7/28/17 12:26 118.58 -12 66.47 7/28/17 12:29 117.64 -15 65.87 </td <td>7/28/17</td> <td>11:00</td> <td>147.52</td> <td></td> <td>95.41</td> <td></td>	7/28/17	11:00	147.52		95.41	
7/28/17 12:14 147.85 4,351 95.74 Pumping rate in well C-21 163 gpm. 7/28/17 12:15 142.82 -1 90.71 Pump in well C-21 shut down, test on well C-21 ended. 7/28/17 12:16 124.13 -2 72.02 7/28/17 12:17 122.84 -3 70.73 7/28/17 12:19 122.02 -5 69.91 7/28/17 12:20 121.33 -6 69.22 7/28/17 12:21 120.77 -7 68.66 7/28/17 12:22 120.22 -8 68.11 7/28/17 12:23 119.88 -9 67.77 7/28/17 12:23 119.88 -9 67.77 7/28/17 12:25 118.97 -11 66.86 7/28/17 12:25 118.97 -11 66.86 7/28/17 12:28 117.98 -14 65.87 7/28/17 12:28 117.98 -14 65.85 7/28/17	7/28/17	12:00			95.75	
7/28/17 12:15 142.82 -1 90.71 Pump in well C-21 shut down, test on well C-21 ended. 7/28/17 12:16 124.13 -2 72.02 7/28/17 12:17 122.84 -3 70.73 7/28/17 12:18 122.62 -4 70.51 7/28/17 12:19 122.02 -5 69.91 7/28/17 12:21 120.77 -7 68.66 7/28/17 12:22 120.22 -8 68.11 7/28/17 12:23 119.88 -9 67.77 7/28/17 12:23 119.88 -9 67.77 7/28/17 12:25 118.97 -11 66.86 7/28/17 12:26 118.58 -12 66.47 7/28/17 12:27 118.24 -13 66.13 7/28/17 12:29 117.64 -15 65.53 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:45 113.85 <td< td=""><td></td><td></td><td></td><td></td><td></td><td>1 0</td></td<>						1 0
7/28/17 12:17 12:84 -3 70.73 7/28/17 12:18 122.62 -4 70.51 7/28/17 12:19 122.02 -5 69.91 7/28/17 12:21 120.07 -7 68.66 7/28/17 12:22 120.22 -8 68.11 7/28/17 12:23 119.88 -9 67.77 7/28/17 12:24 119.40 -10 67.29 7/28/17 12:25 118.97 -11 66.86 7/28/17 12:26 118.58 -12 66.47 7/28/17 12:26 118.58 -12 66.47 7/28/17 12:28 117.98 -14 65.87 7/28/17 12:28 117.98 -14 65.87 7/28/17 12:30 117.36 -16 65.25 7/28/17 12:40 114.84 -26 62.73 7/28/17 12:55 112.95 -36 60.84 7/28/					90.71	Pump in well C-21 shut down, test on well C-21
7/28/17 12:18 122.62 -4 70.51 7/28/17 12:19 122.02 -5 69.91 7/28/17 12:20 121.33 -6 69.22 7/28/17 12:21 120.77 -7 68.66 7/28/17 12:22 120.22 -8 68.11 7/28/17 12:23 119.88 -9 67.77 7/28/17 12:24 119.40 -10 67.29 7/28/17 12:25 118.97 -11 66.86 7/28/17 12:26 118.58 -12 66.47 7/28/17 12:26 118.58 -12 66.47 7/28/17 12:26 118.58 -12 66.47 7/28/17 12:28 117.98 -14 65.87 7/28/17 12:29 117.64 -15 65.53 7/28/17 12:30 117.36 -16 65.25 7/28/17 12:45 113.85 -31 61.74 7/28	7/28/17	12:16	124.13	-2	72.02	
7/28/17 12:19 122.02 -5 69.91 7/28/17 12:20 121.33 -6 69.22 7/28/17 12:21 120.77 -7 68.66 7/28/17 12:22 120.22 -8 68.11 7/28/17 12:23 119.88 -9 67.77 7/28/17 12:23 119.40 -10 67.29 7/28/17 12:25 118.97 -11 66.86 7/28/17 12:26 118.58 -12 66.47 7/28/17 12:27 118.24 -13 66.13 7/28/17 12:28 117.98 -14 65.87 7/28/17 12:30 117.36 -16 65.53 7/28/17 12:30 117.36 -16 65.25 7/28/17 12:40 114.84 -26 62.73 7/28/17 12:50 112.95 -36 60.84 7/28/17 13:00 111.41 -41 60.03 7/2	7/28/17	12:17	122.84	-3	70.73	
7/28/17 12:20 121:33 -6 69:22 7/28/17 12:21 120.77 -7 68:66 7/28/17 12:22 120:22 -8 68:11 7/28/17 12:23 119:88 -9 67:77 7/28/17 12:24 119:40 -10 67:29 7/28/17 12:25 118:97 -11 66:86 7/28/17 12:26 118:58 -12 66:47 7/28/17 12:27 118:24 -13 66:13 7/28/17 12:28 117:98 -14 65:87 7/28/17 12:39 117:64 -15 65:53 7/28/17 12:30 117:36 -16 65:25 7/28/17 12:35 115:99 -21 63:88 7/28/17 12:45 113:85 -31 61:74 7/28/17 12:50 112:95 -36 60:84 7/28/17 13:00 111:41 -46 59:30 7/	7/28/17	12:18	122.62	-4	70.51	
7/28/17 12:21 120.77 -7 68.66 7/28/17 12:22 120.22 -8 68.11 7/28/17 12:23 119.88 -9 67.77 7/28/17 12:24 119.40 -10 67.29 7/28/17 12:25 118.97 -11 66.86 7/28/17 12:26 118.58 -12 66.47 7/28/17 12:28 118.24 -13 66.13 7/28/17 12:28 117.98 -14 65.87 7/28/17 12:29 117.64 -15 65.53 7/28/17 12:30 117.36 -16 65.25 7/28/17 12:40 114.84 -26 62.73 7/28/17 12:45 113.85 -31 61.74 7/28/17 12:55 112.95 -36 60.84 7/28/17 13:00 111.41 -46 59.30 7/28/17 13:05 110.69 -51 58.58 7	7/28/17	12:19	122.02	-5	69.91	
7/28/17 12:22 120:22 -8 68:11 7/28/17 12:23 119:88 -9 67:77 7/28/17 12:24 119:40 -10 67:29 7/28/17 12:25 118:97 -11 66:86 7/28/17 12:26 118:58 -12 66:47 7/28/17 12:27 118:24 -13 66:13 7/28/17 12:28 117:98 -14 65:87 7/28/17 12:29 117:64 -15 65:53 7/28/17 12:30 117:36 -16 65:25 7/28/17 12:35 115:99 -21 63:88 7/28/17 12:40 114:84 -26 62:73 7/28/17 12:45 113:85 -31 61:74 7/28/17 12:50 112:95 -36 60:84 7/28/17 13:00 111:41 -46 59:30 7/28/17 13:05 110:69 -51 58:58	7/28/17	12:20	121.33	-6	69.22	
7/28/17 12:23 119.88 -9 67.77 7/28/17 12:24 119.40 -10 67.29 7/28/17 12:25 118.97 -11 66.86 7/28/17 12:26 118.58 -12 66.47 7/28/17 12:27 118.24 -13 66.13 7/28/17 12:28 117.98 -14 65.87 7/28/17 12:29 117.64 -15 65.53 7/28/17 12:30 117.36 -16 65.25 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:40 114.84 -26 62.73 7/28/17 12:45 113.85 -31 61.74 7/28/17 12:50 112.95 -36 60.84 7/28/17 13:00 111.41 -46 59.30 7/28/17 13:05 110.69 -51 58.58 7/28/17 13:15 109.41 -61 57.30 <td< td=""><td>7/28/17</td><td>12:21</td><td>120.77</td><td>-7</td><td>68.66</td><td></td></td<>	7/28/17	12:21	120.77	-7	68.66	
7/28/17 12:24 119.40 -10 67.29 7/28/17 12:25 118.97 -11 66.86 7/28/17 12:26 118.58 -12 66.47 7/28/17 12:27 118.24 -13 66.13 7/28/17 12:28 117.98 -14 65.87 7/28/17 12:29 117.64 -15 65.53 7/28/17 12:30 117.36 -16 65.25 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:40 114.84 -26 62.73 7/28/17 12:45 113.85 -31 61.74 7/28/17 12:50 112.95 -36 60.84 7/28/17 13:05 110.69 -51 58.58 7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42	7/28/17	12:22	120.22	-8	68.11	
7/28/17 12:25 118.97 -11 66.86 7/28/17 12:26 118.58 -12 66.47 7/28/17 12:27 118.24 -13 66.13 7/28/17 12:28 117.98 -14 65.87 7/28/17 12:29 117.64 -15 65.53 7/28/17 12:30 117.36 -16 65.25 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:40 114.84 -26 62.73 7/28/17 12:45 113.85 -31 61.74 7/28/17 12:50 112.95 -36 60.84 7/28/17 13:00 111.41 -46 59.30 7/28/17 13:05 110.69 -51 58.58 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42	7/28/17	12:23	119.88	-9	67.77	
7/28/17 12:26 118.58 -12 66.47 7/28/17 12:27 118.24 -13 66.13 7/28/17 12:28 117.98 -14 65.87 7/28/17 12:29 117.64 -15 65.53 7/28/17 12:30 117.36 -16 65.25 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:40 114.84 -26 62.73 7/28/17 12:45 113.85 -31 61.74 7/28/17 12:50 112.95 -36 60.84 7/28/17 13:00 111.41 -46 59.30 7/28/17 13:05 110.69 -51 58.58 7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42	7/28/17	12:24	119.40	-10	67.29	
7/28/17 12:27 118.24 -13 66.13 7/28/17 12:28 117.98 -14 65.87 7/28/17 12:29 117.64 -15 65.53 7/28/17 12:30 117.36 -16 65.25 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:40 114.84 -26 62.73 7/28/17 12:45 113.85 -31 61.74 7/28/17 12:50 112.95 -36 60.84 7/28/17 13:00 111.41 -46 59.30 7/28/17 13:05 110.69 -51 58.58 7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42	7/28/17	12:25	118.97	-11	66.86	
7/28/17 12:28 117.98 -14 65.87 7/28/17 12:29 117.64 -15 65.53 7/28/17 12:30 117.36 -16 65.25 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:40 114.84 -26 62.73 7/28/17 12:45 113.85 -31 61.74 7/28/17 12:50 112.95 -36 60.84 7/28/17 12:55 112.14 -41 60.03 7/28/17 13:00 111.41 -46 59.30 7/28/17 13:05 110.69 -51 58.58 7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42	7/28/17	12:26	118.58	-12	66.47	
7/28/17 12:29 117.64 -15 65.53 7/28/17 12:30 117.36 -16 65.25 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:40 114.84 -26 62.73 7/28/17 12:45 113.85 -31 61.74 7/28/17 12:50 112.95 -36 60.84 7/28/17 12:55 112.14 -41 60.03 7/28/17 13:00 111.41 -46 59.30 7/28/17 13:05 110.69 -51 58.58 7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42						
7/28/17 12:30 117.36 -16 65.25 7/28/17 12:35 115.99 -21 63.88 7/28/17 12:40 114.84 -26 62.73 7/28/17 12:45 113.85 -31 61.74 7/28/17 12:50 112.95 -36 60.84 7/28/17 12:55 112.14 -41 60.03 7/28/17 13:00 111.41 -46 59.30 7/28/17 13:05 110.69 -51 58.58 7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42	7/28/17	12:28	117.98	-14	65.87	
7/28/17 12:35 115.99 -21 63.88 7/28/17 12:40 114.84 -26 62.73 7/28/17 12:45 113.85 -31 61.74 7/28/17 12:50 112.95 -36 60.84 7/28/17 12:55 112.14 -41 60.03 7/28/17 13:00 111.41 -46 59.30 7/28/17 13:05 110.69 -51 58.58 7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42	7/28/17		117.64	-15	65.53	
7/28/17 12:35 115.99 -21 63.88 7/28/17 12:40 114.84 -26 62.73 7/28/17 12:45 113.85 -31 61.74 7/28/17 12:50 112.95 -36 60.84 7/28/17 12:55 112.14 -41 60.03 7/28/17 13:00 111.41 -46 59.30 7/28/17 13:05 110.69 -51 58.58 7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42	7/28/17	12:30	117.36	-16	65.25	
7/28/17 12:45 113.85 -31 61.74 7/28/17 12:50 112.95 -36 60.84 7/28/17 12:55 112.14 -41 60.03 7/28/17 13:00 111.41 -46 59.30 7/28/17 13:05 110.69 -51 58.58 7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42	7/28/17	12:35	115.99	-21		
7/28/17 12:50 112.95 -36 60.84 7/28/17 12:55 112.14 -41 60.03 7/28/17 13:00 111.41 -46 59.30 7/28/17 13:05 110.69 -51 58.58 7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42		12:40	114.84	-26	62.73	
7/28/17 12:55 112.14 -41 60.03 7/28/17 13:00 111.41 -46 59.30 7/28/17 13:05 110.69 -51 58.58 7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42		12:45	113.85	-31		
7/28/17 13:00 111.41 -46 59.30 7/28/17 13:05 110.69 -51 58.58 7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42		12:50	112.95	-36	60.84	
7/28/17 13:05 110.69 -51 58.58 7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42	7/28/17	12:55	112.14	-41	60.03	
7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42		13:00	111.41	-46	59.30	
7/28/17 13:10 110.02 -56 57.91 7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42	7/28/17	13:05	110.69		58.58	
7/28/17 13:15 109.41 -61 57.30 7/28/17 14:00 105.53 -106 53.42			110.02	-56		
7/28/17 14:00 105.53 -106 53.42	7/28/17		109.41	-61		
	7/28/17		105.53	-106	53.42	
	7/28/17		101.67	-166	49.56	
7/28/17 16:00 98.98 -226 46.87	7/28/17	16:00	98.98	-226		

Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
7/28/17	17:00	96.70	-286	44.59	
7/28/17	18:00	94.80	-346	42.69	
7/28/17	19:00	93.16	-406	41.05	
7/28/17	20:00	91.74	-466	39.63	
7/28/17	21:00	90.45	-526	38.34	
7/28/17	22:00	89.28	-586	37.17	
7/28/17	23:00	88.22	-646	36.11	
7/29/17	0:00	87.27	-706	35.16	
7/29/17	1:00	86.41	-766	34.30	
7/29/17	2:00	85.49	-826	33.38	
7/29/17	3:00	84.71	-886	32.60	
7/29/17	4:00	83.96	-946	31.85	
7/29/17	5:00	83.21	-1,006	31.10	
7/29/17	6:00	82.52	-1,066	30.41	
7/29/17	7:00	81.90	-1,126	29.79	
7/29/17	8:00	81.27	-1,186	29.16	
7/29/17	9:00	80.69	-1,246	28.58	
7/29/17	10:00	80.11	-1,306	28.00	
7/29/17	11:00	79.56	-1,366	27.45	
7/29/17	12:00	79.02	-1,426	26.91	
7/29/17	13:00	78.57	-1,486	26.46	
7/29/17	14:00	77.90	-1,546	25.79	
7/29/17	15:00	77.67	-1,606	25.56	
7/29/17	16:00	77.21	-1,666	25.10	
7/29/17	17:00	76.75	-1,726	24.64	
7/29/17	18:00	76.35	-1,786	24.24	
7/29/17	19:00	75.91	-1,846	23.80	
7/29/17 7/29/17	20:00	75.48 75.14	-1,906	23.37	
7/29/17	22:00	74.74	-1,966 -2,026	22.63	
7/29/17	23:00	74.42	-2,026	22.31	
7/30/17	0:00	74.12	-2,146	22.01	
7/30/17	1:00	73.75	-2,206	21.64	
7/30/17	2:00	73.47	-2,266	21.36	
7/30/17	3:00	73.15	-2,326	21.04	
7/30/17	4:00	72.86	-2,386	20.75	
7/30/17	5:00	72.59	-2,446	20.48	
7/30/17	6:00	72.30	-2,506	20.19	
7/30/17	7:00	71.97	-2,566	19.86	
7/30/17	8:00	71.72	-2,626	19.61	
7/30/17	9:00	71.42	-2,686	19.31	
7/30/17	10:00	71.15	-2,746	19.04	
7/30/17	11:00	70.90	-2,806	18.79	
7/30/17	12:00	70.61	-2,866	18.50	
7/30/17	13:00	70.36	-2,926	18.25	
7/30/17	14:00	70.12	-2,986	18.01	
7/30/17	15:00	69.86	-3,046	17.75	
7/30/17	16:00	69.62	-3,106	17.51	
7/30/17	17:00	69.39	-3,166	17.28	
7/30/17	18:00	69.14	-3,226	17.03	
7/30/17	19:00	68.90	-3,286	16.79	
7/30/17	20:00	68.71	-3,346	16.60	
7/30/17	21:00	68.43	-3,406	16.32	
7/30/17	22:00	68.21	-3,466	16.10	

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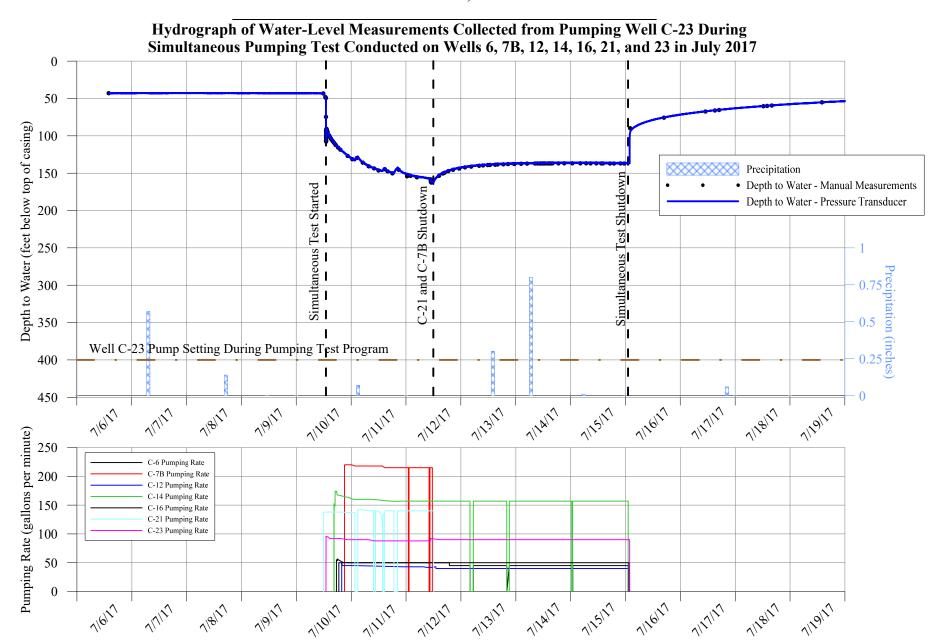
Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
7/30/17	23:00	67.96	-3,526	15.85	
7/31/17	0:00	67.77	-3,586	15.66	
7/31/17	1:00	67.60	-3,646	15.49	
7/31/17	2:00	67.35	-3,706	15.24	
7/31/17	3:00	67.19	-3,766	15.08	
7/31/17	4:00	67.00	-3,826	14.89	
7/31/17	5:00	66.90	-3,886	14.79	
7/31/17	6:00	66.67	-3,946	14.56	
7/31/17	7:00	66.50	-4,006	14.39	
7/31/17	8:00	66.25	-4,066	14.14	
7/31/17	9:00	66.10	-4,126	13.99	
7/31/17	10:00	65.93	-4,186	13.82	
7/31/17	11:00	65.70	-4,246	13.59	
7/31/17	12:00	65.31	-4,306	13.20	
7/31/17	13:00	65.36	-4,366	13.25	-
7/31/17	14:00	65.17	-4,426	13.06	-
7/31/17 7/31/17	15:00	65.01	-4,486	12.90	
7/31/17	16:00 17:00	64.81 64.66	-4,546 -4,606	12.70 12.55	
	18:00	64.50	-4,666	12.39	
7/31/17 7/31/17	19:00	64.37	-4,726	12.39	
7/31/17	20:00	64.21	-4,726 -4,786	12.26	
7/31/17	21:00	64.04	-4,846	11.93	
7/31/17	22:00	63.91	-4,906	11.80	
7/31/17	23:00	63.74	-4,966	11.63	
8/1/17	0:00	63.59	-5,026	11.48	
8/1/17	1:00	63.43	-5,086	11.32	
8/1/17	2:00	63.32	-5,146	11.21	
8/1/17	3:00	63.21	-5,206	11.10	
8/1/17	4:00	63.10	-5,266	10.99	
8/1/17	5:00	62.95	-5,326	10.84	
8/1/17	6:00	62.86	-5,386	10.75	
8/1/17	7:00	62.75	-5,446	10.64	
8/1/17	8:00	62.63	-5,506	10.52	
8/1/17	9:00	62.48	-5,566	10.37	
8/1/17	10:00	62.34	-5,626	10.23	
8/1/17	11:00	62.20	-5,686	10.09	
8/1/17	12:00	62.03	-5,746	9.92	
8/1/17	13:00	61.93	-5,806	9.82	
8/1/17	14:00	61.75	-5,866	9.64	
8/1/17	15:00	61.64	-5,926	9.53	90% recovery achieved.
8/1/17	16:00	61.54	-5,986	9.43	
8/1/17	17:00	61.42	-6,046	9.31	
8/1/17	18:00	61.31	-6,106	9.20	
8/1/17	19:00	61.22	-6,166	9.11	
8/1/17	20:00	61.08	-6,226	8.97	
8/1/17	21:00	60.95	-6,286	8.84	
8/1/17	22:00	60.85	-6,346	8.74	
8/1/17	23:00	60.75	-6,406	8.64	-
8/2/17	0:00	60.64	-6,466	8.53	
8/2/17	1:00	60.51	-6,526 6,586	8.40	
8/2/17	2:00	60.43	-6,586	8.32	
8/2/17	3:00	60.34	-6,646 6 706	8.23	
8/2/17	4:00	60.27	-6,706	8.15	

Summary of Water-Level Measurements from Pressure Transducer Installed in Well C-21 Collected During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

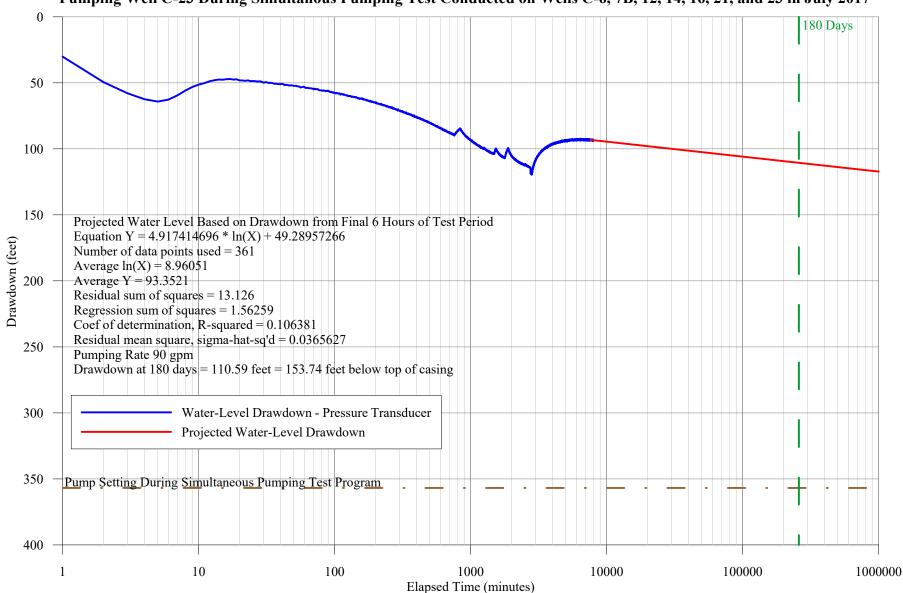
Date	Time	Depth to Water (ft btoc)	Elapsed Time/ Recovery (minutes)	Drawdown (feet)	Comments
8/2/17	5:00	60.18	-6,766	8.07	
8/2/17	6:00	60.14	-6,826	8.03	
8/2/17	7:00	59.99	-6,886	7.88	
8/2/17	8:00	59.96	-6,946	7.85	
8/2/17	9:00	59.86	-7,006	7.75	
8/2/17	10:00	59.80	-7,066	7.69	
8/2/17	11:00	59.68	-7,126	7.57	
8/2/17	12:00	59.55	-7,186	7.44	
8/2/17	13:00	59.45	-7,246	7.34	
8/2/17	14:00	59.37	-7,306	7.26	
8/2/17	15:00	59.20	-7,366	7.09	
8/2/17	16:00	59.16	-7,426	7.05	
8/2/17	17:00	59.13	-7,486	7.02	
8/2/17	18:00	59.00	-7,546	6.89	
8/2/17	19:00	58.94	-7,606	6.83	
8/2/17	20:00	58.90	-7,666	6.79	
8/2/17	21:00	58.75	-7,726	6.64	
8/2/17	22:00	58.70	-7,786	6.59	
8/2/17	23:00	58.66	-7,846	6.55	
8/3/17	0:00	58.55	-7,906	6.44	
8/3/17	1:00	58.47	-7,966	6.36	
8/3/17	2:00	58.36	-8,026	6.25	
8/3/17	3:00	58.27	-8,086	6.16	
8/3/17	4:00	58.27	-8,146	6.16	
8/3/17	5:00	58.19	-8,206	6.08	
8/3/17	6:00	58.12	-8,266	6.01	
8/3/17	7:00	58.14	-8,326	6.03	
8/3/17	8:00	58.05	-8,386	5.94	
8/3/17	9:00	58.00	-8,446	5.89	
8/3/17	10:00	57.99	-8,506	5.88	
8/3/17	11:00	57.90	-8,566	5.79	
8/3/17	12:00	57.81	-8,626	5.70	
8/3/17	13:00	57.70	-8,686	5.59	
8/3/17	14:00	57.59	-8,746	5.47	
8/3/17	15:00	57.46	-8,806	5.35	
8/3/17	16:00	57.43	-8,866	5.32	
8/3/17	17:00	57.34	-8,926	5.23	
8/3/17	18:00	57.26	-8,986	5.15	
8/3/17	19:00	57.25	-9,046	5.14	
8/3/17	20:00	57.16	-9,106	5.05	
8/3/17	21:00	57.14	-9,166	5.03	
8/3/17	22:00	57.07	-9,226	4.96	
8/3/17	23:00	57.01	-9,286	4.90	

ft btoc feet below top of casing gpm gallons per minute

H:\Lake Anne\Clovewood\2017\July Pumping Test Report\C-21 Table.docx



180-Day Water-Level Drawdown Projection on Pumping Well C-23 from Water-Level Measurements Collected from Pumping Well C-23 During Simultanous Pumping Test Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
7/6/17	14:00	43.16			Pressure transducer installed in well.
7/6/17	15:00	42.96			
7/6/17	16:00	42.99			
7/6/17	17:00	42.85			
7/6/17	18:00	42.83	-		
7/6/17	19:00	42.88			
7/6/17	20:00	42.86			
7/6/17	21:00	42.87			
7/6/17	22:00	42.91			
7/6/17	23:00	42.86			
7/7/17	0:00	42.90			
7/7/17	1:00	42.91			
7/7/17	2:00	42.83			
7/7/17	3:00	42.83			
7/7/17	4:00	42.80			
7/7/17	5:00 6:00	42.80 42.91			
7/7/17	7:00	42.80			
7/7/17	8:00	42.80			
7/7/17	9:00	42.96			
7/7/17	10:00	42.90			
7/7/17	11:00	42.99			
7/7/17	12:00	42.93			
7/7/17	13:00	42.92			
7/7/17	14:00	42.94			
7/7/17	15:00	42.90			
7/7/17	16:00	42.78			
7/7/17	17:00	42.83			
7/7/17	18:00	42.72			
7/7/17	19:00	42.73			
7/7/17	20:00	42.75			
7/7/17	21:00	42.77			
7/7/17	22:00	42.76			
7/7/17	23:00	42.86			
7/8/17	0:00	42.81			
7/8/17	1:00	42.82			
7/8/17	2:00	42.68			
7/8/17	3:00	42.72			
7/8/17	4:00	42.69			
7/8/17	5:00	42.72			
7/8/17	6:00	42.75			
7/8/17	7:00	42.71			
7/8/17	8:00	42.81			
7/8/17	9:00	42.85			
7/8/17	10:00	42.86			
7/8/17	11:00	42.86			
7/8/17	12:00	42.97			
7/8/17	13:00	42.86			
7/8/17	14:00	42.91			
7/8/17	15:00 16:00	42.89 42.85			
7/8/17	17:00	42.85 42.81			
7/8/17	18:00	42.73			
7/8/17	19:00	42.75			
//0/1/	17.00	42.73			

1881 2000	Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
19817 22-90 42-81	7/8/17	20:00	42.80			
1981 23:00	7/8/17	21:00	42.76			
19917 100	7/8/17	22:00	42.81			
19917 1500 42.85	7/8/17	23:00	42.85			
19917 2:00 42:89		0:00				
19917 3:00 42:84	7/9/17	1:00	42.85	-		
19917 4:00 42.82	7/9/17		42.89	H		
19917 5:00						
19917 6:00 42.81						
179/17 7:00 42.90						
19917 8:00 42.90						
179/17 10:00						
179/17 10:00						
179/17 11:00						
179/17 12:00						
17/91/7						
17/9/17 15:00						
779/17 15:00						
7/9/17 16:00						
7/9/17						
7/9/17 18:00 42.97 7/9/17 19:00 42.96 7/9/17 21:00 42.96 7/9/17 21:00 42.95 7/9/17 23:00 43.06 7/10/17 0:00 43.00 7/10/17 1:00 43.02 7/10/17 2:00 43.02 7/10/17 3:00 43.03 7/10/17 4:00 43.03 7/10/17 5:00 43.03 7/10/17 5:00 43.03 7/10/17 7:00 42.96 7/10/17 8:00 42.90 7/10/17 10:00 43.01 7/10/17 11:00 43.12						
7/9/17 19:00 42.96 7/9/17 20:00 43.01 7/9/17 22:00 42.95 7/9/17 22:00 42.95 7/10/17 0:00 43.06 7/10/17 1:00 43.07 7/10/17 2:00 43.02 7/10/17 3:00 43.03 7/10/17 3:00 43.03 7/10/17 5:00 43.03 7/10/17 5:00 43.03 7/10/17 5:00 43.03 7/10/17 6:00 42.96 7/10/17 8:00 42.96 7/10/17 10:00 42.98 7/10/17 10:00 43.01						
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7/9/17 22:00 42.95 7/9/17 23:00 43.06 7/10/17 0:00 43.00 7/10/17 1:00 43.07 7/10/17 2:00 43.03 7/10/17 3:00 43.03 7/10/17 5:00 43.03 7/10/17 5:00 43.03 7/10/17 6:00 42.96 7/10/17 7:00 42.97 7/10/17 9:00 43.01 7/10/17 10:00 42.98 7/10/17 11:54 43.15 7/10/17 12:00 43.20 7/10/17 12:58 49.27 7/10/17 13:00 92.67 2						
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7/10/17 0:00 43.00 7/10/17 1:00 43.07 7/10/17 1:00 43.02 7/10/17 3:00 43.03 7/10/17 4:00 43.03 7/10/17 5:00 43.03 7/10/17 5:00 43.03 7/10/17 6:00 42.96 <						
7/10/17 1:00 43.07 7/10/17 2:00 43.02 <						
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7/10/17 6:00 42.96						
7/10/17 7:00 42.97						
7/10/17 8:00 42.90						
7/10/17 9:00 43.01 7/10/17 10:00 42.98 7/10/17 11:00 43.12 7/10/17 11:54 43.15 Static water level used from prior to the start of pumping in any onsite wells. 7/10/17 12:00 43.20 Pump in well C-21 started at 11:55. 7/10/17 12:58 49.27 7/10/17 12:59 73.35 1 30.20 Pump in well C-23 started. 7/10/17 13:00 92.67 2 49.52 7/10/17 13:01 101.07 3 57.92 Pumping rate in well C-23 96 gpm. 7/10/17 13:02 105.60 4 62.45 7/10/17 13:03 107.33 5 64.18 7/10/17 13:04 105.90 6 62.75 7/10/17 13:06 98.96 8 55.81 7/10/17 13:07 96.						
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7/10/17 13:06 98.96 8 55.81 7/10/17 13:07 96.21 9 53.06						Pumping rate in well C-23 96 gpm.
7/10/17 13:07 96.21 9 53.06			98.96			
	7/10/17	13:07		9		
	7/10/17	13:08	94.47	10	51.32	

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Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
7/10/17	13:09	93.42	11	50.27	Pumping rate in well C-23 96 gpm.
7/10/17	13:10	92.03	12	48.88	
7/10/17	13:11	91.22	13	48.07	
7/10/17	13:12	90.70	14	47.55	
7/10/17	13:13	90.77	15	47.62	
7/10/17	13:14	90.44	16	47.29	Pumping rate in well C-23 95 gpm.
7/10/17	13:15	90.29	17	47.14	
7/10/17	13:20	91.64	22	48.49	Pumping rate in well C-23 95 gpm.
7/10/17	13:25	92.15 92.86	27	49.00	
7/10/17 7/10/17	13:30 13:35	93.78	32 37	49.71 50.63	Pumping rate in well C-23 95 gpm.
7/10/17	13:33	94.27	42	51.12	Pumping rate in well C-23 93 gpm.
7/10/17	13:45	95.11	47	51.12	
7/10/17	13:50	95.38	52	52.23	Pumping rate in well C-23 95 gpm.
7/10/17	13:55	96.45	57	53.30	Tumping face in wen 0 23 73 gpin.
7/10/17	14:00	96.95	62	53.80	Pumping rate in well C-23 93 gpm.
7/10/17	15:00	102.84	122	59.69	Pumping rate in well C-23 92 gpm.
7/10/17	16:00	107.27	182	64.12	Pumping rate in well C-23 92 gpm.
7/10/17	17:00	110.97	242	67.82	Pump in well C-14 started at 16:24.
7/10/17	18:00	114.07	302	70.92	Pump in well C-16 started at 17:31.
7/10/17	19:00	117.36	362	74.21	Pump in well C-6 started at 18:35.
7/10/17	20:00	120.01	422	76.86	Pump in well C-12 started at 19:48.
7/10/17	21:00	122.48	482	79.33	Pump in well C-7B started at 21:03.
7/10/17	22:00	125.40	542	82.25	Pumping rate in well C-23 90 gpm.
7/10/17	23:00	127.53	602	84.38	Pumping rate in well C-23 90 gpm.
7/11/17	0:00	129.81	662	86.66	Pumping rate in well C-23 90 gpm.
7/11/17	1:00	131.54	722	88.39	Pumping rate in well C-23 90 gpm.
7/11/17 7/11/17	2:00 3:00	130.89 128.45	782 842	87.74 85.30	Pumping rate in well C-23 90 gpm.
7/11/17	4:00	132.43	902	89.28	Pumping rate in well C-23 90 gpm. Pumping rate in well C-23 90 gpm.
7/11/17	5:00	134.95	962	91.80	Pumping rate in well C-23 90 gpm. Pumping rate in well C-23 90 gpm.
7/11/17	6:00	137.59	1,022	94.44	Pumping rate in well C-23 90 gpm. Pumping rate in well C-23 90 gpm.
7/11/17	7:00	139.27	1,082	96.12	Pumping rate in well C-23 90 gpm.
7/11/17	8:00	140.59	1,142	97.44	Pumping rate in well C-23 90 gpm.
7/11/17	9:00	142.42	1,202	99.27	Pumping rate in well C-23 90 gpm.
7/11/17	10:00	143.06	1,262	99.91	Pumping rate in well C-23 88 gpm.
7/11/17	11:00	144.58	1,322	101.43	Pumping rate in well C-23 88 gpm.
7/11/17	12:00	145.86	1,382	102.71	Pumping rate in well C-23 88 gpm.
7/11/17	13:00	146.72	1,442	103.57	Pumping rate in well C-23 88 gpm.
7/11/17	14:00	145.40	1,502	102.25	Pumping rate in well C-23 88 gpm.
7/11/17	15:00	144.63	1,562	101.48	Pumping rate in well C-23 88 gpm.
7/11/17	16:00	147.26	1,622	104.11	Pumping rate in well C-23 88 gpm.
7/11/17	17:00	148.33	1,682	105.18	Pumping rate in well C-23 88 gpm.
7/11/17	18:00	149.85	1,742	106.70	Pumping rate in well C-23 88 gpm.
7/11/17	19:00	148.35	1,802	105.20	Pumping rate in well C-23 88 gpm.
7/11/17 7/11/17	20:00 21:00	143.76 145.26	1,862 1,922	100.61 102.11	Pumping rate in well C-23 88 gpm. Pumping rate in well C-23 88 gpm.
7/11/17	22:00	147.79	1,922	104.64	Pumping rate in well C-23 88 gpm. Pumping rate in well C-23 88 gpm.
7/11/17	23:00	149.80	2,042	106.65	Pumping rate in well C-23 88 gpm.
7/11/17	0:00	150.88	2,102	107.73	Pumping rate in well C-23 88 gpm.
7/12/17	1:00	151.90	2,162	108.75	Pumping rate in well C-23 88 gpm.
7/12/17	2:00	153.04	2,222	109.89	Pumping rate in well C-23 88 gpm.
7/12/17	3:00	153.85	2,282	110.70	Pumping rate in well C-23 88 gpm.
7/12/17	4:00	154.14	2,342	110.99	Pumping rate in well C-23 88 gpm.

Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
7/12/17	5:00	154.53	2,402	111.38	Pumping rate in well C-23 88 gpm.
7/12/17	6:00	155.15	2,462	112.00	Pumping rate in well C-23 88 gpm.
7/12/17	7:00	154.98	2,522	111.83	Pumping rate in well C-23 88 gpm.
7/12/17	8:00	155.77	2,582	112.62	Pumping rate in well C-23 88 gpm.
7/12/17	9:00	156.29	2,642	113.14	Pumping rate in well C-23 88 gpm.
7/12/17	10:00	156.85	2,702	113.70	Pumping rate in well C-23 88 gpm.
7/12/17	10:45	153.37	2,747	114.22	Manually increased pumping rate in well C-23.
7/12/17	11:00	161.74	2,762	118.59	Pumping rate in well C-23 88 gpm.
7/12/17	12:00	162.50	2,822	119.35	Pump in well C-7B shut down at 11:28 and pump in well C-21 shut down at 11:56.
7/12/17	13:00	156.82	2,882	113.67	Pumping rate in well C-23 92 gpm.
7/12/17	14:00	153.97	2,942	110.82	Pumping rate in well C-23 90 gpm.
7/12/17	15:00	151.53	3,002	108.38	Pumping rate in well C-23 90 gpm.
7/12/17	16:00	150.02	3,062	106.87	Pumping rate in well C-23 90 gpm.
7/12/17	17:00	148.19	3,122	105.04	Pumping rate in well C-23 90 gpm.
7/12/17	18:00	147.24	3,182	104.09	Pumping rate in well C-23 90 gpm.
7/12/17	19:00	145.97	3,242	102.82	Pumping rate in well C-23 90 gpm.
7/12/17	20:00	145.01	3,302	101.86	Pumping rate in well C-23 90 gpm.
7/12/17	21:00	144.30	3,362	101.15	Pumping rate in well C-23 90 gpm.
7/12/17	22:00	143.58	3,422	100.43	Pumping rate in well C-23 90 gpm.
7/12/17	23:00	143.28	3,482	100.13	Pumping rate in well C-23 90 gpm.
7/13/17	0:00	142.73	3,542	99.58	Pumping rate in well C-23 90 gpm.
7/13/17	1:00	142.26	3,602	99.11	Pumping rate in well C-23 90 gpm.
7/13/17	2:00	141.53	3,662	98.38	Pumping rate in well C-23 90 gpm.
7/13/17	3:00	141.22	3,722	98.07	Pumping rate in well C-23 90 gpm.
7/13/17	4:00	140.92	3,782	97.77	Pumping rate in well C-23 90 gpm.
7/13/17	5:00	140.13	3,842	96.98	Pumping rate in well C-23 90 gpm.
7/13/17	6:00	139.96	3,902	96.81	Pumping rate in well C-23 90 gpm.
7/13/17	7:00	139.26	3,962	96.11	Pumping rate in well C-23 90 gpm.
7/13/17	8:00	139.50	4,022	96.35	Pumping rate in well C-23 90 gpm.
7/13/17	9:00	139.15	4,082	96.00	Pumping rate in well C-23 90 gpm.
7/13/17	10:00	139.08	4,142	95.93	Pumping rate in well C-23 90 gpm.
7/13/17	11:00	138.38	4,202	95.23	Pumping rate in well C-23 90 gpm.
7/13/17	12:00	138.49	4,262	95.34	Pumping rate in well C-23 90 gpm.
7/13/17	13:00	138.26	4,322	95.11	Pumping rate in well C-23 90 gpm.
7/13/17	14:00	138.64	4,382	95.49	Pumping rate in well C-23 90 gpm.
7/13/17	15:00	138.16	4,442	95.01	Pumping rate in well C-23 90 gpm.
7/13/17	16:00	137.78	4,502	94.63	Pumping rate in well C-23 90 gpm.
7/13/17	17:00	137.78	4,562	94.63	Pumping rate in well C-23 90 gpm.
7/13/17	18:00	137.80	4,622	94.65	Pumping rate in well C-23 90 gpm.
7/13/17	19:00	137.63	4,682	94.48	Pumping rate in well C-23 90 gpm.
7/13/17	20:00	137.38	4,742	94.23	Pumping rate in well C-23 90 gpm.
7/13/17	21:00	137.24	4,802	94.09	Pumping rate in well C-23 90 gpm.
7/13/17	22:00	137.24	4,862	94.09	Pumping rate in well C-23 90 gpm.
7/13/17	23:00	137.32	4,922	94.03	Pumping rate in well C-23 90 gpm.
7/14/17	0:00	136.67	4,982	93.52	Pumping rate in well C-23 90 gpm.
7/14/17	1:00	136.91	5,042	93.76	Pumping rate in well C-23 90 gpm.
7/14/17	2:00	137.14	5,102	93.99	Pumping rate in well C-23 90 gpm.
7/14/17	3:00	136.73	5,162	93.58	Pumping rate in well C-23 90 gpm.
7/14/17	4:00	136.92	5,222	93.77	Pumping rate in well C-23 90 gpm.
7/14/17	5:00	136.67	5,282	93.52	Pumping rate in well C-23 90 gpm.
7/14/17	6:00	136.77	5,342	93.62	Pumping rate in well C-23 90 gpm.
7/14/17	7:00	136.84	5,402	93.69	Pumping rate in well C-23 90 gpm. Pumping rate in well C-23 90 gpm.
7/14/17	8:00	136.61	5,462	93.46	Pumping rate in well C-23 90 gpm.
//14/1/	0.00	130.01	J, 4 02	73.40	rumping rate in well C-25 90 gpm.

Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
7/14/17	9:00	136.16	5,522	93.01	Pumping rate in well C-23 90 gpm.
7/14/17	10:00	136.35	5,582	93.20	Pumping rate in well C-23 90 gpm.
7/14/17	11:00	136.01	5,642	92.86	Pumping rate in well C-23 90 gpm.
7/14/17	12:00	136.33	5,702	93.18	Pumping rate in well C-23 90 gpm.
7/14/17	13:00	136.41	5,762	93.26	Pumping rate in well C-23 90 gpm.
7/14/17	14:00	136.46	5,822	93.31	Pumping rate in well C-23 90 gpm.
7/14/17	15:00	136.41	5,882	93.26	Pumping rate in well C-23 90 gpm.
7/14/17	16:00	136.50	5,942	93.35	Pumping rate in well C-23 90 gpm.
7/14/17	17:00	136.32	6,002	93.17	Pumping rate in well C-23 90 gpm.
7/14/17	18:00	136.32	6,062	93.17	Pumping rate in well C-23 90 gpm.
7/14/17	19:00	136.24	6,122	93.09	Pumping rate in well C-23 90 gpm.
7/14/17	20:00	135.92	6,182	92.77	Pumping rate in well C-23 90 gpm.
7/14/17	21:00	136.15	6,242	93.00	Pumping rate in well C-23 90 gpm.
7/14/17	22:00	136.32	6,302	93.17	Pumping rate in well C-23 90 gpm.
7/14/17	23:00	136.15	6,362	93.00	Pumping rate in well C-23 90 gpm.
7/15/17	0:00	136.02	6,422	92.87	Pumping rate in well C-23 90 gpm.
7/15/17	1:00	136.17	6,482	93.02	Pumping rate in well C-23 90 gpm.
7/15/17	2:00	135.99	6,542	92.84	Pumping rate in well C-23 90 gpm.
7/15/17	3:00	136.23	6,602	93.08	Pumping rate in well C-23 90 gpm.
7/15/17	4:00	136.13	6,662	92.98	Pumping rate in well C-23 90 gpm.
7/15/17	5:00	136.55	6,722	93.40	Pumping rate in well C-23 90 gpm.
7/15/17	6:00	136.26	6,782	93.11	Pumping rate in well C-23 90 gpm.
7/15/17	7:00	136.30	6,842	93.15	Pumping rate in well C-23 90 gpm.
7/15/17	8:00	136.16	6,902	93.01	Pumping rate in well C-23 90 gpm.
7/15/17	9:00	135.71	6,962	92.56	Pumping rate in well C-23 90 gpm.
7/15/17	10:00	135.92	7,022	92.77	Pumping rate in well C-23 90 gpm.
7/15/17	11:00	136.66	7,082	93.51	Pumping rate in well C-23 90 gpm.
7/15/17	12:00	136.20	7,142	93.05	Pumping rate in well C-23 90 gpm.
7/15/17	13:00	136.43	7,202	93.28	Pumping rate in well C-23 90 gpm.
7/15/17	14:00	136.37	7,262	93.22	Pumping rate in well C-23 90 gpm.
7/15/17	15:00	136.33	7,322	93.18	Pumping rate in well C-23 90 gpm.
7/15/17	16:00	136.25	7,382	93.10	Pumping rate in well C-23 90 gpm.
7/15/17	17:00	136.29	7,442	93.14	Pumping rate in well C-23 90 gpm.
7/15/17	18:00	136.28	7,502	93.13	Pumping rate in well C-23 90 gpm.
7/15/17	19:00	136.14	7,562	92.99	Pumping rate in well C-23 90 gpm.
7/15/17	19:09	136.24	7,571	93.09	Pumping rate in well C-23 90 gpm.
7/15/17	20:00	136.50	7,622	93.35	Pumping rate in well C-23 90 gpm.
7/15/17	21:00	136.35	7,682	93.20	Pumping rate in well C-23 90 gpm.
7/15/17	22:00	136.84	7,742	93.69	Pumping rate in well C-23 90 gpm.
7/15/17	23:00	136.34	7,802	93.19	Pumping rate in well C-23 90 gpm.
7/16/17	0:00	136.00	7,862	92.85	Pumping rate in well C-23 90 gpm.
7/16/17	1:00	136.70	7,922	93.55	Pumping rate in well C-23 90 gpm.
7/16/17	1:09	136.75	7,931	93.60	Shut down of simultaneous pumping test (wells C-6, 12, 14, 16, and 23) started.
7/16/17	1:47	136.59	7,969	93.44	Pumping rate in well C-23 90 gpm.
7/16/17	1:48	136.65	7,970	93.50	Pumping rate in well C-23 90 gpm.
7/16/17	1:49	118.36	-1	75.21	Pump in well C-23 shut down.
7/16/17	1:50	107.15	-2	64.00	
7/16/17	1:51	102.66	-3	59.51	
7/16/17	1:52	100.80	-4	57.65	
7/16/17	1:53	99.55	-5	56.40	
7/16/17	1:54	98.61	-6	55.46	
7/16/17	1:55	97.92	-7	54.77	
7/16/17	1:56	97.47	-8	54.32	

Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
7/16/17	1:57	97.09	-9	53.94	
7/16/17	1:58	96.56	-10	53.41	
7/16/17	1:59	96.22	-11	53.07	
7/16/17	2:00	96.03	-12	52.88	
7/16/17	2:01	95.89	-13	52.74	
7/16/17	2:02	95.46	-14	52.31	
7/16/17	2:03	95.34	-15	52.19	
7/16/17	2:04	95.26	-16	52.11	
7/16/17	2:05	94.99	-17	51.84	
7/16/17 7/16/17	2:10 2:15	94.21 93.80	-22 -27	51.06 50.65	
7/16/17	2:13	93.16	-32	50.01	
7/16/17	2:25	92.77	-37	49.62	
7/16/17	2:30	92.29	-42	49.14	
7/16/17	2:35	91.99	-47	48.84	
7/16/17	2:40	91.77	-52	48.62	
7/16/17	3:00	90.65	-72	47.50	
7/16/17	4:00	88.22	-132	45.07	
7/16/17	5:00	86.34	-192	43.19	
7/16/17	6:00	84.93	-252	41.78	
7/16/17	7:00	83.52	-312	40.37	
7/16/17	8:00	82.38	-372	39.23	
7/16/17	9:00	81.36	-432	38.21	
7/16/17	10:00	80.36	-492	37.21	
7/16/17	11:00	79.51	-552	36.36	
7/16/17	12:00	78.68	-612	35.53	
7/16/17 7/16/17	13:00	78.01 77.25	-672 733	34.86	
7/16/17	14:00 15:00	76.48	-732 -792	34.10 33.33	
7/16/17	16:00	75.87	-852	32.72	
7/16/17	17:00	75.30	-912	32.15	
7/16/17	18:00	74.72	-972	31.57	
7/16/17	19:00	74.29	-1,032	31.14	
7/16/17	20:00	73.54	-1,092	30.39	
7/16/17	21:00	72.97	-1,152	29.82	
7/16/17	22:00	72.50	-1,212	29.35	
7/16/17	23:00	72.08	-1,272	28.93	
7/17/17	0:00	71.52	-1,332	28.37	
7/17/17	1:00	71.03	-1,392	27.88	
7/17/17	2:00	70.69	-1,452	27.54	
7/17/17	3:00	70.40	-1,512 1,572	27.25	
7/17/17 7/17/17	4:00	69.83 69.49	-1,572 1,632	26.68	
7/17/17	5:00 6:00	69.49	-1,632 -1,692	26.34 25.97	
7/17/17	7:00	68.66	-1,752	25.51	+
7/17/17	8:00	68.29	-1,812	25.14	
7/17/17	9:00	67.97	-1,872	24.82	
7/17/17	10:00	67.64	-1,932	24.49	
7/17/17	11:00	67.24	-1,992	24.09	
7/17/17	12:00	66.86	-2,052	23.71	
7/17/17	13:00	66.53	-2,112	23.38	
7/17/17	14:00	66.05	-2,172	22.90	
7/17/17	15:00	65.91	-2,232	22.76	
7/17/17	16:00	65.47	-2,292	22.32	

Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
7/17/17	17:00	65.20	-2,352	22.05	
7/17/17	18:00	64.84	-2,412	21.69	
7/17/17	19:00	64.71	-2,472	21.56	
7/17/17	20:00	64.33	-2,532	21.18	
7/17/17	21:00	64.05	-2,592	20.90	
7/17/17	22:00	63.60	-2,652	20.45	
7/17/17	23:00	63.42	-2,712	20.27	
7/18/17	0:00	63.15	-2,772	20.00	
7/18/17	1:00	62.86	-2,832	19.71	
7/18/17	2:00	62.61	-2,892	19.46	
7/18/17	3:00	62.36	-2,952	19.21	
7/18/17	4:00	62.11	-3,012	18.96	
7/18/17	5:00	61.92	-3,072	18.77	
7/18/17	6:00	61.64	-3,132	18.49	
7/18/17	7:00	61.44	-3,192 -3,252	18.29 18.04	
7/18/17	8:00	61.19 60.94	-3,252 -3,312	18.04	
7/18/17	9:00				
7/18/17 7/18/17	10:00 11:00	60.69 60.42	-3,372 -3,432	17.54 17.27	
7/18/17	12:00	60.16	-3,492	17.01	
7/18/17	13:00	59.91	-3,552	16.76	
7/18/17	14:00	59.58	-3,612	16.43	
7/18/17	15:00	59.49	-3,672	16.34	
7/18/17	16:00	59.25	-3,732	16.10	
7/18/17	17:00	59.03	-3,792	15.88	
7/18/17	18:00	58.80	-3,852	15.65	
7/18/17	19:00	58.66	-3,912	15.51	
7/18/17	20:00	58.36	-3,972	15.21	
7/18/17	21:00	58.14	-4,032	14.99	
7/18/17	22:00	58.04	-4,092	14.89	
7/18/17	23:00	57.80	-4,152	14.65	
7/19/17	0:00	57.65	-4,212	14.50	
7/19/17	1:00	57.47	-4,272	14.32	
7/19/17	2:00	57.22	-4,332	14.07	
7/19/17	3:00	56.98	-4,392	13.83	
7/19/17	4:00	56.80	-4,452	13.65	
7/19/17	5:00	56.72	-4,512	13.57	
7/19/17	6:00	56.55	-4,572	13.40	
7/19/17	7:00	56.44	-4,632	13.29	
7/19/17	8:00	56.25	-4,692	13.10	
7/19/17	9:00	55.95	-4,752	12.80	
7/19/17	10:00	55.91	-4,812	12.76	
7/19/17	11:00	55.81	-4,872	12.66	
7/19/17	12:00	55.39	-4,932	12.24	
7/19/17	13:00	55.28	-4,992	12.13	
7/19/17	14:00	55.14	-5,052	11.99	
7/19/17	15:00	54.89	-5,112	11.74	
7/19/17	16:00	54.69	-5,172	11.54	
7/19/17	17:00	54.61	-5,232	11.46	
7/19/17	18:00	54.43	-5,292 5,252	11.28	
7/19/17	19:00	54.24	-5,352 5 412	11.09	
7/19/17	20:00	54.11	-5,412 5,472	10.96	
7/19/17	21:00	53.97	-5,472 5,532	10.82	
7/19/17	22:00	53.81	-5,532	10.66	

Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
7/19/17	23:00	53.72	-5,592	10.57	
7/20/17	0:00	53.49	-5,652	10.34	
7/20/17	1:00	53.35	-5,712	10.20	
7/20/17	2:00	53.18	-5,772	10.03	
7/20/17	3:00	53.02	-5,832	9.87	
7/20/17	4:00	53.00	-5,892	9.85	
7/20/17	5:00	52.87	-5,952	9.72	
7/20/17	6:00	52.70	-6,012	9.55	
7/20/17	7:00	52.62	-6,072	9.47	
7/20/17	8:00	52.56	-6,132	9.41	
7/20/17	9:00	52.41	-6,192	9.26	90% recovery achieved.
7/20/17	10:00	52.27	-6,252	9.12	
7/20/17 7/20/17	11:00	52.20	-6,312 -6,372	9.05	
7/20/17	12:00 13:00	52.06 51.97	-6,3 <i>/</i> 2 -6,432	8.91 8.82	
7/20/17	14:00	51.80	-6,492	8.65	
7/20/17	15:00	51.49	-6,552	8.34	
7/20/17	16:00	51.53	-6,612	8.38	
7/20/17	17:00	51.31	-6,672	8.16	
7/20/17	18:00	51.20	-6,732	8.05	
7/20/17	19:00	51.25	-6,792	8.10	
7/20/17	20:00	51.03	-6,852	7.88	
7/20/17	21:00	50.96	-6,912	7.81	
7/20/17	22:00	50.82	-6,972	7.67	
7/20/17	23:00	50.71	-7,032	7.56	
7/21/17	0:00	50.63	-7,092	7.48	
7/21/17	1:00	50.48	-7,152	7.33	
7/21/17	2:00	50.39	-7,212	7.24	
7/21/17	3:00	50.24	-7,272	7.09	
7/21/17	4:00	50.19	-7,332	7.04	
7/21/17	5:00	50.12	-7,392	6.97	
7/21/17	6:00	50.08	-7,452	6.93	
7/21/17 7/21/17	7:00 8:00	49.97 49.88	-7,512 -7,572	6.82 6.73	
7/21/17	9:00	49.84	-7,632	6.69	
7/21/17	10:00	49.76	-7,692	6.61	
7/21/17	11:00	49.68	-7,752	6.53	
7/21/17	12:00	49.65	-7,812	6.50	
7/21/17	13:00	49.49	-7,872	6.34	
7/21/17	14:00	49.32	-7,932	6.17	
7/21/17	15:00	49.05	-7,992	5.90	
7/21/17	16:00	49.09	-8,052	5.94	
7/21/17	17:00	48.93	-8,112	5.78	
7/21/17	18:00	48.83	-8,172	5.68	
7/21/17	19:00	48.84	-8,232	5.69	
7/21/17	20:00	48.79	-8,292	5.64	
7/21/17	21:00	48.63	-8,352	5.48	
7/21/17	22:00	48.62	-8,412	5.47	
7/21/17	23:00	48.46	-8,472	5.31	
7/22/17	0:00	48.51	-8,532 8,502	5.36	
7/22/17 7/22/17	1:00	48.39	-8,592 8,652	5.24	
	2:00	48.31	-8,652 8,712	5.16	
7/22/17 7/22/17	3:00 4:00	48.22	-8,712 -8,772	5.07	
1/22/1/	4:00	48.13	-0,//2	4.98	

Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
7/22/17	5:00	47.99	-8,832	4.84	
7/22/17	6:00	47.95	-8,892	4.80	
7/22/17	7:00	47.94	-8,952	4.79	
7/22/17	8:00	47.89	-9,012	4.74	
7/22/17	9:00	47.81	-9,072	4.66	
7/22/17	10:00	47.88	-9,132	4.73	
7/22/17	11:00	47.75	-9,192	4.60	
7/22/17	12:00	47.72	-9,252	4.57	
7/22/17	13:00	47.59	-9,312	4.44	
7/22/17	14:00	47.46	-9,372	4.31	
7/22/17	15:00	47.31	-9,432	4.16	
7/22/17	16:00	47.25	-9,492	4.10	
7/22/17	17:00	47.21	-9,552	4.06	
7/22/17	18:00	47.07	-9,612	3.92	
7/22/17	19:00	47.06	-9,672	3.91	
7/22/17	20:00	47.02	-9,732	3.87	
7/22/17	21:00	46.89	-9,792	3.74	
7/22/17	22:00	46.90	-9,852	3.75	
7/22/17	23:00	46.88	-9,912	3.73	
7/23/17	0:00	46.71	-9,972	3.56	
7/23/17	1:00	46.57	-10,032	3.42	
7/23/17	2:00	46.67	-10,092	3.52	
7/23/17 7/23/17	3:00 4:00	46.49 46.50	-10,152 -10,212	3.34 3.35	
7/23/17	5:00	46.43	-10,212	3.28	
7/23/17	6:00	46.37	-10,272	3.28	
7/23/17	7:00	46.22	-10,392	3.07	
7/23/17	8:00	46.31	-10,452	3.16	
7/23/17	9:00	46.32	-10,512	3.17	
7/23/17	10:00	46.26	-10,572	3.11	
7/23/17	11:00	46.25	-10,632	3.10	
7/23/17	12:00	46.11	-10,692	2.96	
7/23/17	13:00	46.25	-10,752	3.10	
7/23/17	14:00	46.12	-10,812	2.97	
7/23/17	15:00	46.02	-10,872	2.87	
7/23/17	16:00	45.89	-10,932	2.74	
7/23/17	17:00	45.70	-10,992	2.55	
7/23/17	18:00	45.71	-11,052	2.56	
7/23/17	19:00	45.62	-11,112	2.47	
7/23/17	20:00	45.53	-11,172	2.38	
7/23/17	21:00	45.57	-11,232	2.42	
7/23/17	22:00	45.50	-11,292	2.35	
7/23/17	23:00	45.58	-11,352	2.43	
7/24/17	0:00	45.47	-11,412	2.32	
7/24/17	1:00	45.45	-11,472	2.30	
7/24/17	2:00	45.40	-11,532	2.25	
7/24/17	3:00	45.28	-11,592	2.13	
7/24/17	4:00	45.31	-11,652	2.16	
7/24/17	5:00	45.21	-11,712	2.06	
7/24/17	6:00	45.08	-11,772	1.93	
7/24/17	7:00	45.03	-11,832	1.88	
7/24/17	8:00	45.10	-11,892	1.95	
7/24/17	9:00	45.09	-11,952	1.94	
7/24/17	10:00	45.06	-12,012	1.91	

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Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
7/24/17	11:00	44.95	-12,072	1.80	
7/24/17	12:00	44.95	-12,132	1.80	
7/24/17	13:00	45.02	-12,192	1.87	
7/24/17	14:00	44.93	-12,252	1.78	
7/24/17	15:00	44.91	-12,312	1.76	
7/24/17	16:00	44.68	-12,372	1.53	
7/24/17	17:00	44.75	-12,432	1.60	
7/24/17	18:00	44.64	-12,492	1.49	
7/24/17	19:00	44.54	-12,552	1.39	
7/24/17	20:00	44.43	-12,612	1.28	
7/24/17	21:00	44.43	-12,672	1.28	
7/24/17	22:00	44.29	-12,732	1.14	
7/24/17	23:00	44.32	-12,792	1.17	
7/25/17	0:00	44.27	-12,852	1.12	
7/25/17	1:00	44.22	-12,912	1.07	
7/25/17 7/25/17	2:00 3:00	44.27 44.17	-12,972 -13,032	1.12 1.02	
7/25/17	4:00	44.17	-13,032	0.94	
7/25/17	5:00	44.14	-13,152	0.94	
7/25/17	6:00	44.04	-13,132	0.89	
7/25/17	7:00	44.04	-13,272	0.89	
7/25/17	8:00	44.01	-13,332	0.86	
7/25/17	9:00	44.02	-13,392	0.87	
7/25/17	10:00	44.09	-13,452	0.87	
7/25/17	11:00	44.02	-13,512	0.87	
7/25/17	11:44	44.03	-13,556	0.88	Pump in well C-21 started at 11:44.
7/25/17	12:00	46.30	-13,572	3.15	Tump in wen e-21 stated at 11.44.
7/25/17	13:00	51.99	-13,632	8.84	
7/25/17	14:00	55.79	-13,692	12.64	
7/25/17	15:00	58.85	-13,752	15.70	
7/25/17	16:00	61.40	-13,812	18.25	
7/25/17	17:00	63.61	-13,872	20.46	
7/25/17	18:00	65.71	-13,932	22.56	
7/25/17	19:00	67.62	-13,992	24.47	
7/25/17	20:00	69.37	-14,052	26.22	
7/25/17	21:00	70.85	-14,112	27.70	
7/25/17	22:00	72.33	-14,172	29.18	
7/25/17	23:00	73.79	-14,232	30.64	
7/26/17	0:00	75.05	-14,292	31.90	
7/26/17	1:00	76.27	-14,352	33.12	
7/26/17	2:00	77.45	-14,412	34.30	
7/26/17	3:00	78.61	-14,472	35.46	
7/26/17	4:00	79.59	-14,532	36.44	
7/26/17	5:00	80.61	-14,592	37.46	
7/26/17	6:00	81.43	-14,652	38.28	
7/26/17	7:00	82.51	-14,712	39.36	
7/26/17	8:00	83.27	-14,772	40.12	
7/26/17	9:00	84.18	-14,832	41.03	
7/26/17	10:00	84.99	-14,892	41.84	
7/26/17	11:00	85.91	-14,952	42.76	
7/26/17	12:00	86.57	-15,012	43.42	
7/26/17	13:00	87.32	-15,072	44.17	
7/26/17	14:00	88.00	-15,132	44.85	
7/26/17	15:00	88.65	-15,192	45.50	

Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
7/26/17	16:00	89.30	-15,252	46.15	
7/26/17	17:00	89.90	-15,312	46.75	
7/26/17	18:00	90.37	-15,372	47.22	
7/26/17	19:00	91.05	-15,432	47.90	
7/26/17	20:00	91.69	-15,492	48.54	
7/26/17	21:00	92.22	-15,552	49.07	
7/26/17	22:00	92.80	-15,612	49.65	
7/26/17	23:00	93.35	-15,672	50.20	
7/27/17	0:00	93.92	-15,732	50.77	
7/27/17	1:00	94.38	-15,792	51.23	
7/27/17	2:00	95.00	-15,852	51.85	
7/27/17	3:00	95.38	-15,912	52.23	
7/27/17	4:00	95.86	-15,972	52.71	
7/27/17	5:00	96.23	-16,032	53.08	
7/27/17	6:00	96.60	-16,092	53.45	
7/27/17 7/27/17	7:00 8:00	97.06 97.43	-16,152 -16,212	53.91 54.28	
7/27/17	9:00	97.87	-16,212 -16,272	54.28 54.72	
7/27/17	10:00	98.25	-16,332	55.10	
7/27/17	11:00	98.82	-16,392	55.67	
7/27/17	12:00	99.15	-16,452	56.00	
7/27/17	13:00	99.58	-16,512	56.43	
7/27/17	14:00	99.83	-16,572	56.68	
7/27/17	15:00	100.30	-16,632	57.15	
7/27/17	16:00	100.58	-16,692	57.43	
7/27/17	17:00	101.00	-16,752	57.85	
7/27/17	18:00	101.12	-16,812	57.97	
7/27/17	19:00	101.43	-16,872	58.28	
7/27/17	20:00	101.80	-16,932	58.65	
7/27/17	21:00	102.09	-16,992	58.94	
7/27/17	22:00	102.34	-17,052	59.19	
7/27/17	23:00	102.70	-17,112	59.55	
7/28/17	0:00	102.89	-17,172	59.74	
7/28/17	1:00	103.23	-17,232	60.08	
7/28/17	2:00	103.45	-17,292	60.30	
7/28/17	3:00	103.80	-17,352	60.65	
7/28/17	4:00	103.95	-17,412	60.80	
7/28/17	5:00	104.26	-17,472	61.11	
7/28/17 7/28/17	6:00 7:00	104.40 104.71	-17,532 -17,592	61.25 61.56	
7/28/17	8:00	104.71	-17,652	61.64	
7/28/17	9:00	104.79	-17,652 -17,712	61.87	
7/28/17	10:00	105.02	-17,772	62.12	
7/28/17	11:00	105.46	-17,832	62.31	
7/28/17	12:00	105.68	-17,892	62.53	
7/28/17	12:15	105.75	-17,907	62.60	Pump in well C-21 shut down at 12:15.
7/28/17	13:00	100.90	-17,952	57.75	
7/28/17	14:00	96.66	-18,012	53.51	
7/28/17	15:00	93.80	-18,072	50.65	
7/28/17	16:00	91.36	-18,132	48.21	
7/28/17	17:00	89.42	-18,192	46.27	
7/28/17	18:00	87.71	-18,252	44.56	
7/28/17	19:00	86.27	-18,312	43.12	
7/28/17	20:00	84.92	-18,372	41.77	

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Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
7/28/17	21:00	83.62	-18,432	40.47	
7/28/17	22:00	82.68	-18,492	39.53	
7/28/17	23:00	81.65	-18,552	38.50	
7/29/17	0:00	80.56	-18,612	37.41	
7/29/17	1:00	79.69	-18,672	36.54	
7/29/17	2:00	78.94	-18,732	35.79	
7/29/17	3:00	78.12	-18,792	34.97	
7/29/17	4:00	77.47	-18,852	34.32	
7/29/17	5:00	76.67	-18,912	33.52	
7/29/17	6:00	75.92	-18,972	32.77	
7/29/17	7:00	75.33	-19,032	32.18	
7/29/17	8:00	74.77	-19,092	31.62	
7/29/17	9:00	74.02	-19,152	30.87	
7/29/17	10:00	73.56	-19,212	30.41	
7/29/17	11:00	72.93	-19,272	29.78	
7/29/17	12:00	72.47	-19,332	29.32	
7/29/17	13:00	71.98	-19,392	28.83	
7/29/17	14:00	71.52	-19,452	28.37	
7/29/17	15:00	71.17	-19,512	28.02	
7/29/17	16:00	70.59	-19,572	27.44	
7/29/17	17:00	70.14	-19,632	26.99	
7/29/17	18:00	69.76	-19,692	26.61	
7/29/17	19:00	69.39	-19,752	26.24	
7/29/17	20:00	68.97	-19,812	25.82	
7/29/17	21:00	68.57	-19,872	25.42	
7/29/17 7/29/17	22:00	68.15 67.78	-19,932	25.00	
	23:00		-19,992	24.63	
7/30/17 7/30/17	0:00 1:00	67.45 67.04	-20,052 -20,112	24.30 23.89	
7/30/17	2:00	66.85	-20,172	23.70	
7/30/17	3:00	66.45	-20,172	23.70	
7/30/17	4:00	66.16	-20,292	23.01	
7/30/17	5:00	65.85	-20,292	22.70	
7/30/17	6:00	65.62	-20,412	22.47	
7/30/17	7:00	65.42	-20,472	22.27	
7/30/17	8:00	65.00	-20,532	21.85	
7/30/17	9:00	64.69	-20,592	21.54	
7/30/17	10:00	64.38	-20,652	21.23	
7/30/17	11:00	64.13	-20,712	20.98	
7/30/17	12:00	63.91	-20,772	20.76	
7/30/17	13:00	63.65	-20,832	20.50	
7/30/17	14:00	63.45	-20,892	20.30	
7/30/17	15:00	63.10	-20,952	19.95	
7/30/17	16:00	62.80	-21,012	19.65	
7/30/17	17:00	62.58	-21,072	19.43	
7/30/17	18:00	62.35	-21,132	19.20	
7/30/17	19:00	62.04	-21,192	18.89	
7/30/17	20:00	61.86	-21,252	18.71	
7/30/17	21:00	61.64	-21,312	18.49	
7/30/17	22:00	61.39	-21,372	18.24	
7/30/17	23:00	61.05	-21,432	17.90	
7/31/17	0:00	60.81	-21,492	17.66	
7/31/17	1:00	60.64	-21,552	17.49	
7/31/17	2:00	60.39	-21,612	17.24	

Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
7/31/17	3:00	60.30	-21,672	17.15	
7/31/17	4:00	60.03	-21,732	16.88	
7/31/17	5:00	59.94	-21,792	16.79	
7/31/17	6:00	59.76	-21,852	16.61	
7/31/17	7:00	59.47	-21,912	16.32	
7/31/17	8:00	59.34	-21,972	16.19	
7/31/17	9:00	59.08	-22,032	15.93	
7/31/17	10:00	58.86	-22,092	15.71	
7/31/17	11:00	58.67	-22,152	15.52	
7/31/17	12:00	58.47	-22,212	15.32	
7/31/17	13:00	58.32	-22,272	15.17	
7/31/17	14:00	58.17	-22,332	15.02	
7/31/17	15:00	57.89	-22,392	14.74	
7/31/17	16:00	57.68	-22,452	14.53	
7/31/17	17:00	57.61	-22,512	14.46	
7/31/17	18:00	57.39	-22,572	14.24	
7/31/17	19:00	57.24	-22,632	14.09	
7/31/17	20:00	57.07	-22,692	13.92	
7/31/17	21:00	56.87	-22,752	13.72	
7/31/17	22:00	56.74	-22,812	13.59	
7/31/17	23:00	56.62	-22,872	13.47	
8/1/17	0:00	56.50	-22,932	13.35	
8/1/17	1:00	56.21	-22,992	13.06	
8/1/17	2:00	56.14	-23,052	12.99	
8/1/17 8/1/17	3:00	55.85	-23,112 -23,172	12.70 12.77	
8/1/17	4:00 5:00	55.92 55.76	-23,172	12.77	
8/1/17		55.58	-23,232		
8/1/17	6:00 7:00	55.40	-23,352	12.43 12.25	
8/1/17	8:00	55.42	-23,412	12.27	
8/1/17	9:00	55.17	-23,472	12.02	
8/1/17	10:00	55.10	-23,532	11.95	
8/1/17	11:00	55.00	-23,592	11.85	
8/1/17	12:00	54.80	-23,652	11.65	
8/1/17	13:00	54.59	-23,712	11.44	
8/1/17	14:00	54.47	-23,772	11.32	
8/1/17	15:00	54.38	-23,832	11.23	
8/1/17	16:00	54.31	-23,892	11.16	
8/1/17	17:00	54.10	-23,952	10.95	
8/1/17	18:00	54.00	-24,012	10.85	
8/1/17	19:00	53.96	-24,072	10.81	
8/1/17	20:00	53.73	-24,132	10.58	
8/1/17	21:00	53.58	-24,192	10.43	
8/1/17	22:00	53.50	-24,252	10.35	
8/1/17	23:00	53.42	-24,312	10.27	
8/2/17	0:00	53.27	-24,372	10.12	
8/2/17	1:00	53.18	-24,432	10.03	
8/2/17	2:00	53.03	-24,492	9.88	
8/2/17	3:00	52.95	-24,552	9.80	
8/2/17	4:00	52.80	-24,612	9.65	
8/2/17	5:00	52.90	-24,672	9.75	
8/2/17	6:00	52.71	-24,732	9.56	
8/2/17	7:00	52.60	-24,792	9.45	
8/2/17	8:00	52.49	-24,852	9.34	

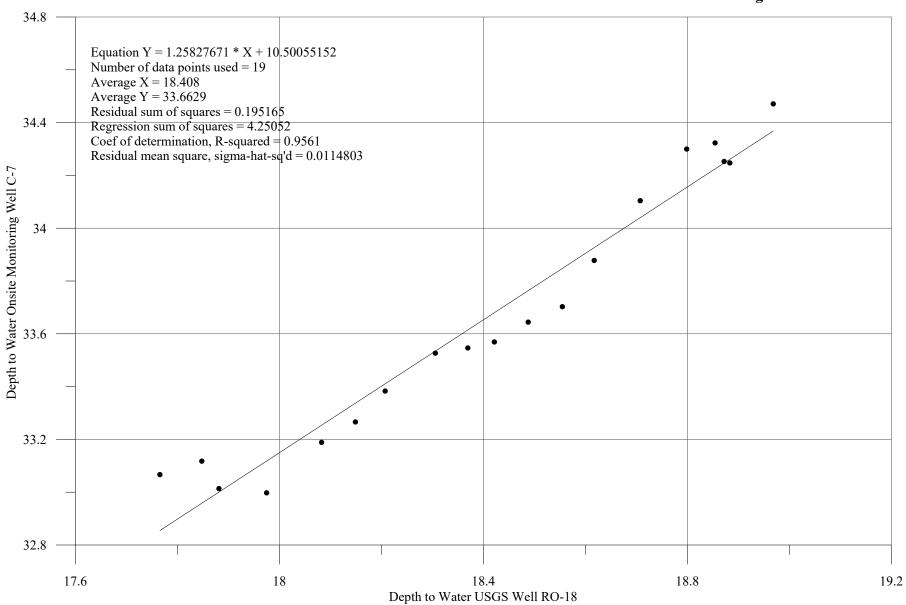
Summary of Water-Level Measurements from Pressure Transducer Installed in Well C-23 Collected During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

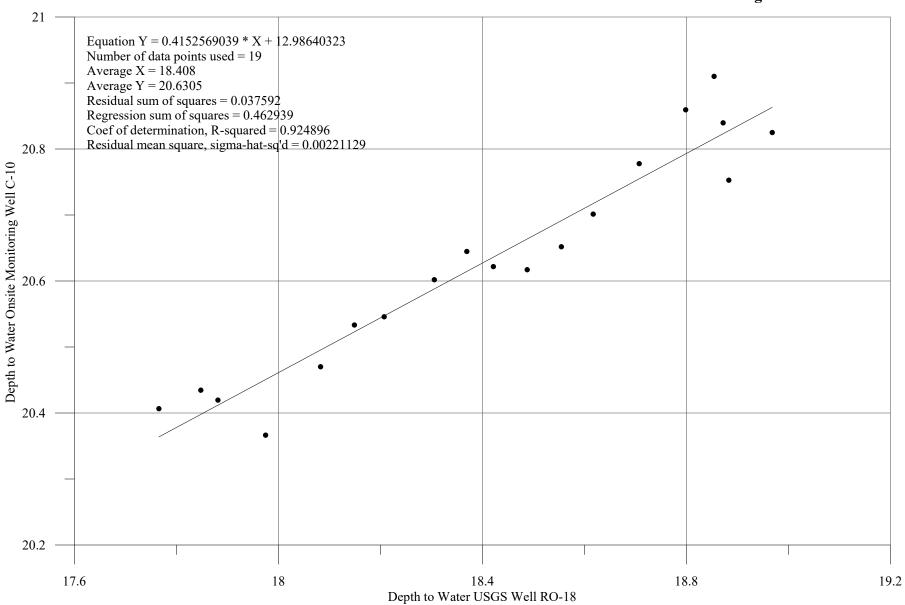
Date	Time	Depth to Water (ft btoc)	Elapsed Time /Recovery (minutes)	Drawdown (feet)	Comments
8/2/17	9:00	52.36	-24,912	9.21	
8/2/17	10:00	52.37	-24,972	9.22	
8/2/17	11:00	52.31	-25,032	9.16	
8/2/17	12:00	52.07	-25,092	8.92	
8/2/17	13:00	51.93	-25,152	8.78	
8/2/17	14:00	51.79	-25,212	8.64	
8/2/17	15:00	51.73	-25,272	8.58	
8/2/17	16:00	51.64	-25,332	8.49	
8/2/17	17:00	51.61	-25,392	8.46	
8/2/17	18:00	51.54	-25,452	8.39	
8/2/17	19:00	51.44	-25,512	8.29	
8/2/17	20:00	51.36	-25,572	8.21	
8/2/17	21:00	51.27	-25,632	8.12	
8/2/17	22:00	51.14	-25,692	7.99	
8/2/17	23:00	51.11	-25,752	7.96	
8/3/17	0:00	51.02	-25,812	7.87	
8/3/17	1:00	50.93	-25,872	7.78	
8/3/17	2:00	50.89	-25,932	7.74	
8/3/17	3:00	50.72	-25,992	7.57	
8/3/17	4:00	50.75	-26,052	7.60	
8/3/17	5:00	50.71	-26,112	7.56	
8/3/17	6:00	50.56	-26,172	7.41	
8/3/17	7:00	50.41	-26,232	7.26	
8/3/17	8:00	50.43	-26,292	7.28	
8/3/17	9:00	50.34	-26,352	7.19	
8/3/17	10:00	50.42	-26,412	7.27	
8/3/17	11:00	50.36	-26,472	7.21	
8/3/17	12:00	50.16	-26,532	7.01	
8/3/17	13:00	50.17	-26,592	7.02	
8/3/17	14:00	49.88	-26,652	6.73	
8/3/17	15:00	49.85	-26,712	6.70	
8/3/17	16:00	49.83	-26,772	6.68	
8/3/17	17:00	49.69	-26,832	6.54	
8/3/17	18:00	49.68	-26,892	6.53	
8/3/17	19:00	49.56	-26,952	6.41	
8/3/17	20:00	49.65	-27,012	6.50	
8/3/17	21:00	49.49	-27,072	6.34	
8/3/17	22:00	49.44	-27,132	6.29	
8/3/17	23:00	49.34	-27,192	6.19	

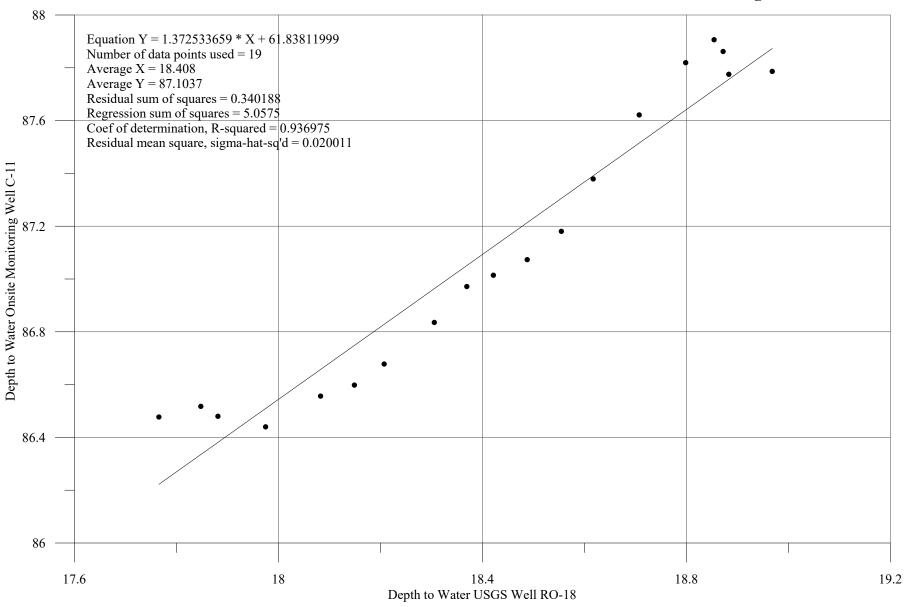
ft btoc feet below top of casing gpm gallons per minute

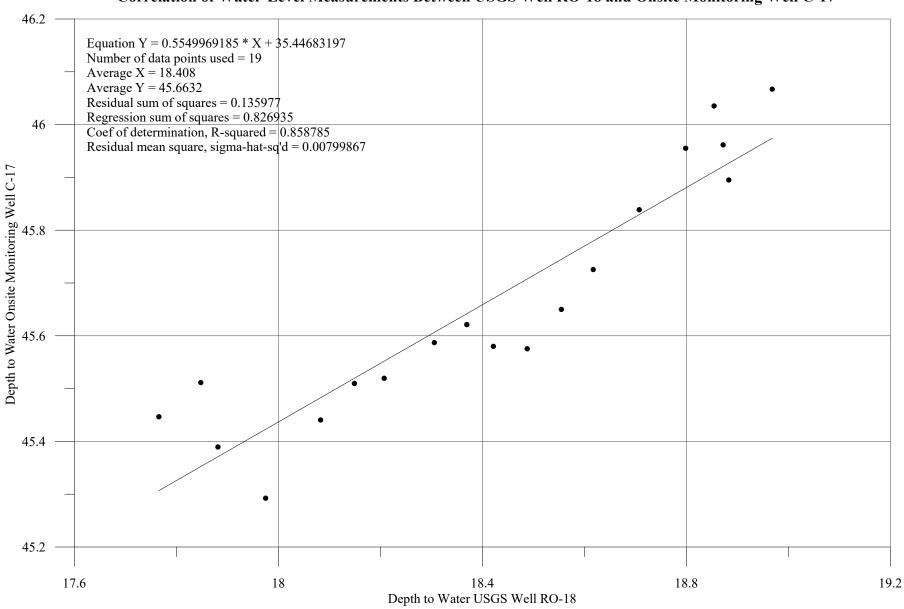
H:\Lake Anne\Clovewood\2017\July Pumping Test Report\C-23 Table.docx

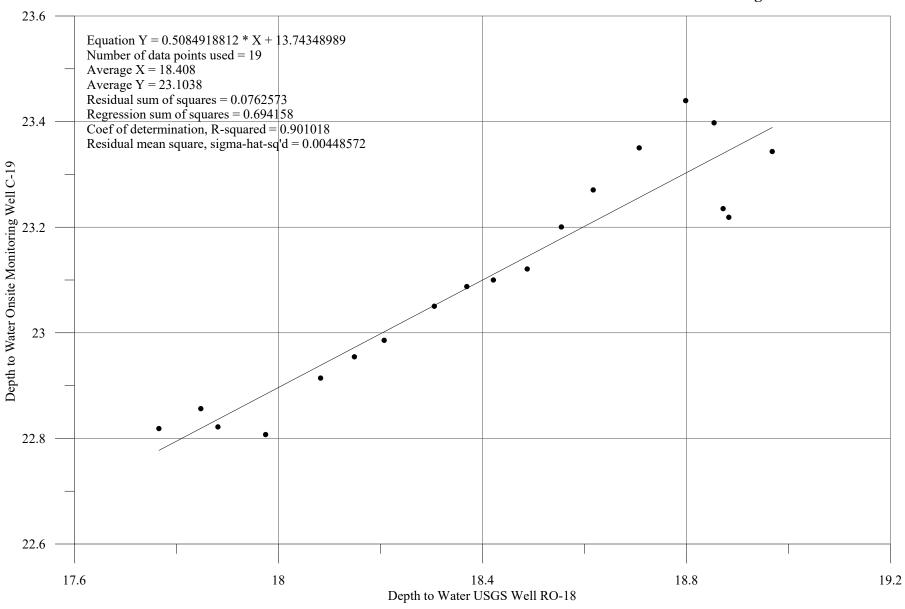
APPENDIX V

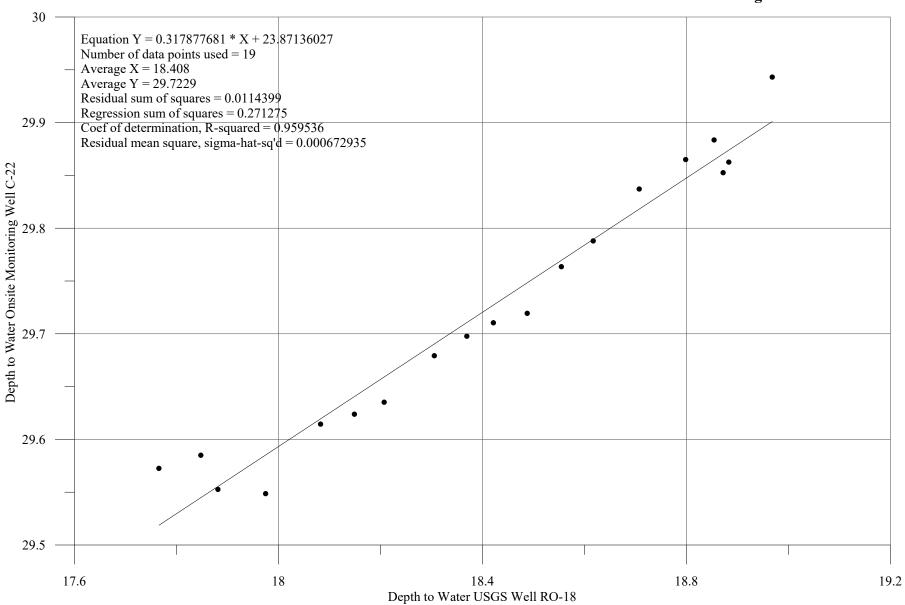








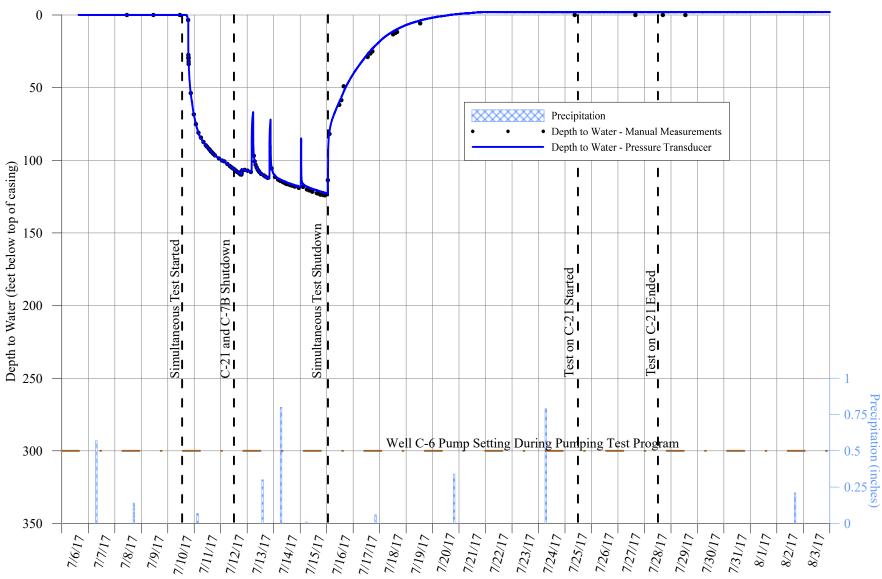


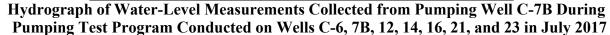


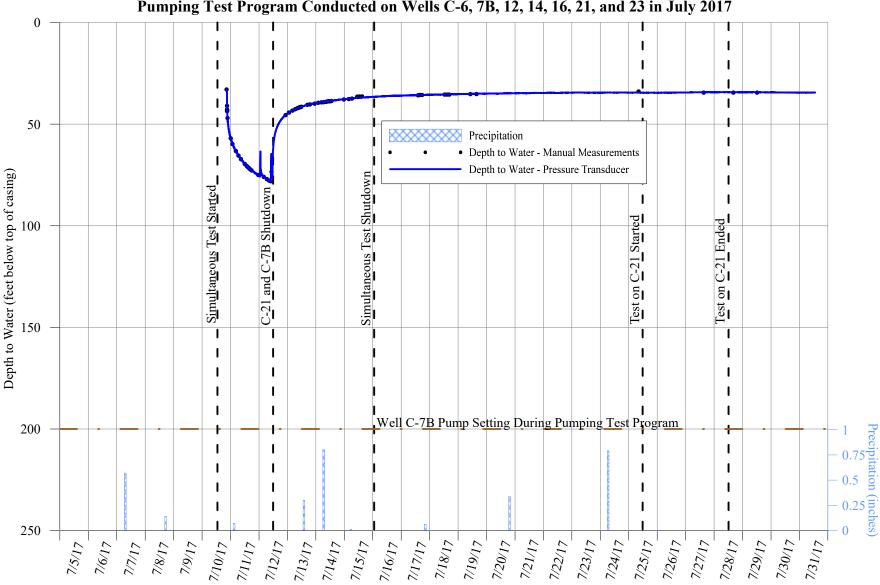
APPENDIX VI

PUMPING WELLS

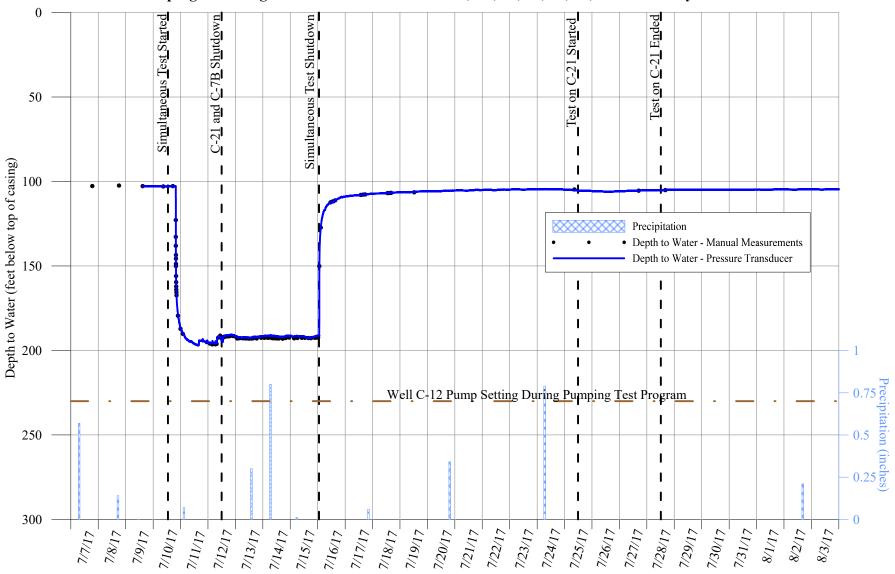
Hydrograph of Water-Level Measurements Collected from Pumping Well C-6 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



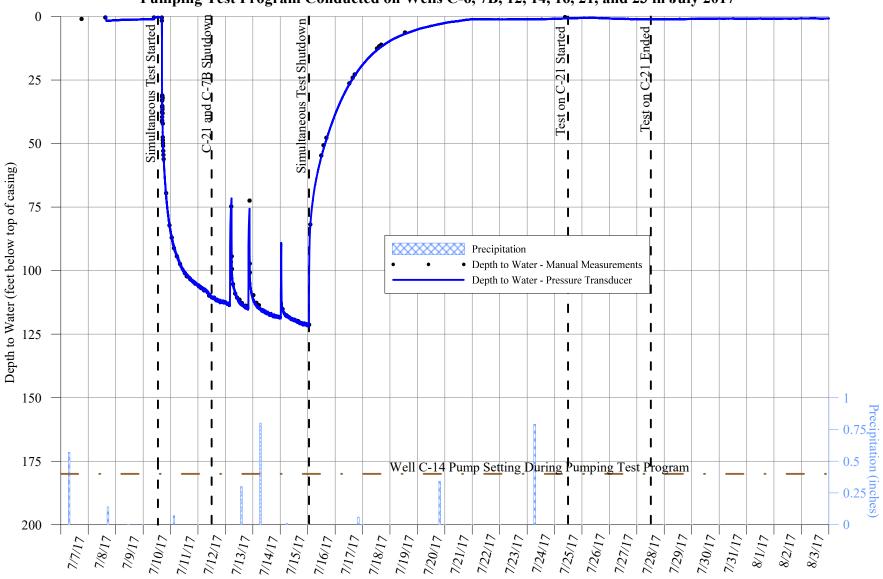




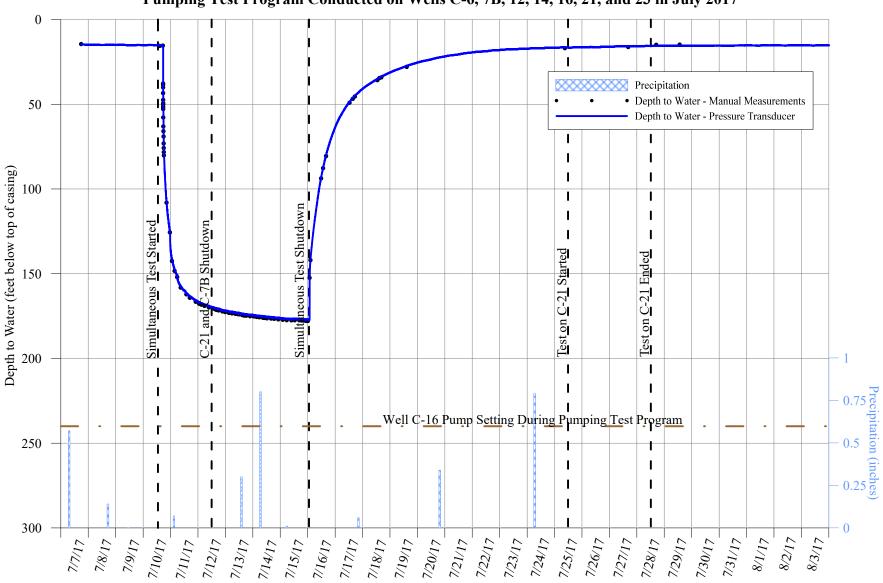
Hydrograph of Water-Level Measurements Collected from Pumping Well C-12 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



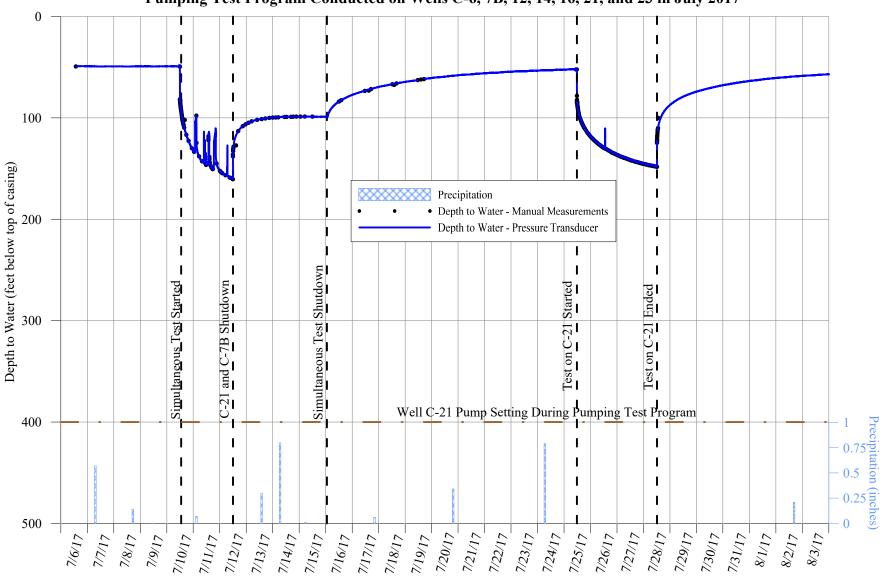
Hydrograph of Water-Level Measurements Collected from Pumping Well C-14 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



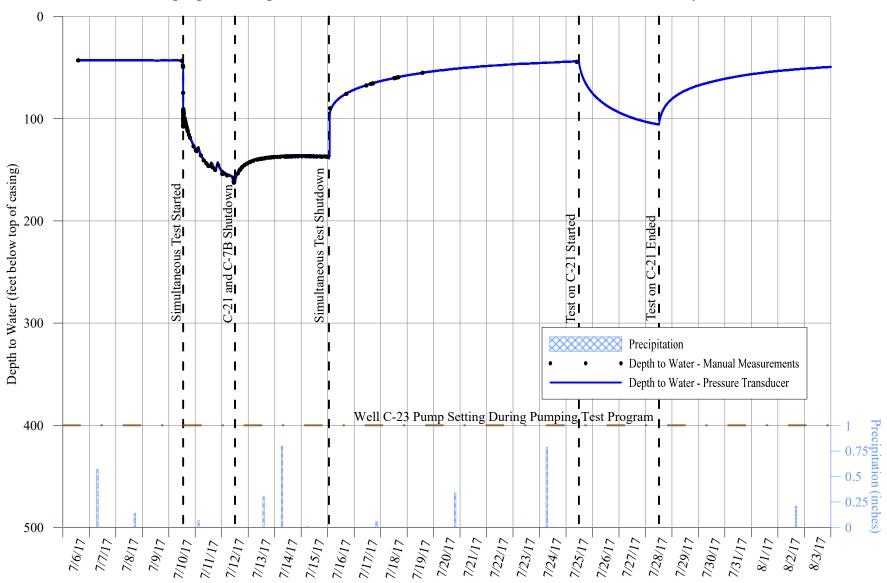
Hydrograph of Water-Level Measurements Collected from Pumping Well C-16 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Hydrograph of Water-Level Measurements Collected from Pumping Well C-21 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Hydrograph of Water-Level Measurements Collected from Pumping Well C-23 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Date	Time	Depth to Water (feet below top of casing)	Depth to Water (feet below top of dip tube)	Date	Time	Depth to Water (feet below top of casing)	Depth to Water (feet below top of dip tube)
		C-6				C-7B	
7/8/2017	10:00	Flowing		6/30/2017	17:10	32.09	
7/8/2017	11:00	Flowing		7/10/2017	20:41	32.95	33.70
7/9/2017	11:00	Flowing		7/10/2017	21:06	42.95	43.70
7/10/2017	11:00	Flowing		7/10/2017	21:07	43.50	44.25
7/10/2017	18:28	3.48	3.78	7/10/2017	21:08	41.05	41.80
7/10/2017	18:40	27.50	27.80	7/10/2017	21:10	42.90	43.65
7/10/2017	18:44	29.42	29.72	7/10/2017	21:12	43.65	44.40
7/10/2017	18:45	29.05	29.35	7/10/2017	21:29	46.98	47.73
7/10/2017	18:48	29.55	29.85	7/11/2017	0:09	57.00	57.75
7/10/2017	18:50	30.02	30.32	7/11/2017	1:44	59.81	60.56
7/10/2017	18:55	32.03	32.33	7/11/2017	4:31	63.26	64.01
7/10/2017	19:00	33.85	34.15	7/11/2017	6:46	65.53	66.28
7/10/2017	20:49	53.79	54.09	7/11/2017	8:52	67.27	68.02
7/10/2017	23:40	68.39	68.69	7/11/2017	12:03	69.61	70.36
7/11/2017	1:30	75.12	75.42	7/11/2017	13:37	70.56	71.31
7/11/2017	3:46	81.08	81.38	7/11/2017	14:42	71.20	71.95
7/11/2017	6:05	84.44	84.74	7/11/2017	15:40	71.71	72.46
7/11/2017	8:23	87.41	87.71	7/11/2017	16:40	72.26	73.01
7/11/2017	10:32	89.72	90.02	7/11/2017	17:50	72.78	73.53
7/11/2017	11:39	90.73	91.03	7/11/2017	23:22	75.03	75.78
7/11/2017	13:15	92.09	92.39	7/11/2017	4:07	76.02	76.77
7/11/2017	14:20	93.06	93.36	7/12/2017	6:42	77.02	77.77
7/11/2017	15:19	94.04	94.34	7/12/2017	8:23	77.69	78.44
7/11/2017	16:22	94.74	95.04	7/12/2017	9:59	78.12	78.87
7/11/2017	17:23	95.62	95.92	7/12/2017	10:35	73.43	74.18
7/11/2017	18:40	96.58	96.88	7/12/2017	22:25	45.60	46.35
7/11/2017	22:25	98.76	99.06	7/13/2017	1:22	44.33	45.08
7/11/2017	1:08	100.20	100.50	7/13/2017	4:14	43.36	44.11
7/12/2017	3:20	100.20	101.08	7/13/2017	6:31	42.69	43.44
7/12/2017	5:59	100.78	101.08	7/13/2017	8:19	42.09	42.99
7/12/2017	8:13	103.93	104.23		9:20	42.24	42.76
7/12/2017	9:42	103.93	104.23	7/13/2017 7/13/2017	10:04	42.01	42.76
		105.57					42.49
7/12/2017	11:00		105.87	7/13/2017	10:47	41.75	
7/12/2017	12:23	106.32	106.62	7/13/2017	11:42	41.49	42.24
7/12/2017	13:29	107.03	107.33	7/13/2017	16:55	40.51	41.26
7/12/2017	14:08	107.58	107.88	7/13/2017	18:58	40.32	41.07
7/12/2017	15:06	108.08	108.38	7/13/2017	23:00	39.89	40.64
7/12/2017	16:15	108.66	108.96	7/14/2017	2:03	39.51	40.26
7/12/2017	17:42	109.66	109.96	7/14/2017	4:43	39.29	40.04
7/12/2017	18:45	109.88	110.18	7/14/2017	6:38	39.19	39.94
7/12/2017	18:55	108.81	109.11	7/14/2017	8:42	39.04	39.79
7/12/2017	18:57	107.36	107.66	7/14/2017	9:47	38.83	39.58
7/12/2017	21:37	106.63	106.93	7/14/2017	10:54	38.73	39.48
7/13/2017	0:22	107.15	107.45	7/14/2017	11:49	38.78	39.53
7/13/2017	3:17	108.01	108.31	7/14/2017	13:14	38.64	39.39
7/13/2017	6:02	96.87	97.17	7/14/2017	23:41	37.89	38.64
7/13/2017	6:46	100.77	101.07	7/15/2017	3:48	37.70	38.45
7/13/2017	7:35	103.07	103.37	7/15/2017	6:32	37.48	38.23
7/13/2017	8:35	105.01	105.31	7/15/2017	11:00	36.45	37.20
7/13/2017	9:35	106.51	106.81	7/15/2017	13:00	36.41	37.16

Date	Time	Depth to Water (feet below top of	Depth to Water (feet below top of	Date	Time	Depth to Water (feet below top of	Depth to Water (feet below top of		
		casing)	dip tube)			casing)	dip tube)		
	,	C-6 (continued)	1	C-7B (continued)					
7/13/2017	10:18	107.22	107.52	7/15/2017	15:02	36.35	37.10		
7/13/2017	11:05	108.11	108.41	7/17/2017	14:14	35.83	36.58		
7/13/2017	12:35	109.35	109.65	7/17/2017	15:41	35.65	36.40		
7/13/2017	15:01	110.41	110.71	7/17/2017	17:43	35.67	36.42		
7/13/2017	16:21	111.23	111.53	7/18/2017	12:44	35.48	36.23		
7/13/2017	18:25	112.09	112.39	7/18/2017	14:43	35.48	36.23		
7/13/2017	22:00	105.57	105.87	7/18/2017	16:32	35.46	36.21		
7/14/2017	1:10	111.53	111.83	7/19/2017	10:22	35.26	36.01		
7/14/2017	4:02	113.35	113.65	7/19/2017	15:30	35.21	35.96		
7/14/2017	6:07	114.25	114.55	7/25/2017	8:23	33.95	34.70		
7/14/2017	8:22	115.05	115.35	7/27/2017	15:18	34.50	35.25		
7/14/2017	9:26	115.31	115.61	7/28/2017	16:20	34.50			
7/14/2017	10:29	115.77	116.07	7/29/2017	12:20	34.50			
7/14/2017	11:31	116.28	116.58						
7/14/2017	12:50	116.45	116.75						
7/14/2017	14:50	117.05	117.35						
7/14/2017	16:40	117.49	117.79						
7/14/2017	19:10	118.12	118.42						
7/14/2017	22:50	118.99	119.29						
7/15/2017	2:38	118.30	118.60						
7/15/2017	6:05	120.12	120.42						
7/15/2017	8:22	120.77	121.07						
7/15/2017	10:59	121.67	121.97						
7/15/2017	15:02	122.65	122.95						
7/15/2017	15:38	122.76	123.06						
7/15/2017	17:50	123.45	123.75						
7/15/2017	18:30	123.60	123.90						
7/15/2017	20:55	123.90	124.20						
7/15/2017	22:10	124.15	124.45						
7/15/2017	23:00	123.75	124.05						
7/16/2017	1:12	113.70	114.00						
7/16/2017	2:34	81.85	82.15						
7/16/2017	11:28	61.88	62.18						
7/16/2017	13:19	58.65	58.95						
7/16/2017	15:31	49.09	49.39						
7/17/2017	13:10	28.86	29.16						
7/17/2017		26.59	26.89						
7/17/2017	17:25	25.05	25.35						
7/18/2017	12:16	13.26	13.56						
7/18/2017	14:09	12.42	12.72						
7/18/2017	15:50	11.67	11.97						
7/19/2017	12:45	5.75	6.05						
7/25/2017	8:50	Flowing							
7/27/2017	15:47	Flowing							
7/28/2017	16:45	Flowing							
7/29/2017	13:10	Flowing							

_		Depth to Water	Depth to Water	_		Depth to Water	Depth to Water
Date	Time	(feet below top of	(feet below top of	Date	Time	(feet below top of	(feet below top of
		casing)	dip tube)			casing)	dip tube)
		C-12				C-14	
7/7/2017	18:50	102.71		7/7/2017	18:10	0.95	1.85
7/8/2017	18:10	102.45		7/8/2017	15:00	0.37	1.27
7/9/2017	14:56	102.80	103.00	7/10/2017	9:30	0.39	1.29
7/10/2017	8:55	102.95	103.15	7/10/2017	16:20	0.42	1.32
7/10/2017	17:20	102.80	103.00	7/10/2017	16:27	1.65	2.55
7/10/2017	19:54	122.83	123.03	7/10/2017	16:33	37.65	38.55
7/10/2017	19:55	132.80	133.00	7/10/2017	16:34	41.30	42.20
7/10/2017	19:56	138.10	138.30	7/10/2017	16:35	40.90	41.80
7/10/2017	19:57	143.55	143.75	7/10/2017	16:36	39.55	40.45
7/10/2017	19:58	145.70	145.90	7/10/2017	16:37	35.40	36.30
7/10/2017	19:59	148.80	149.00	7/10/2017	16:38	33.10	34.00
7/10/2017	20:00	150.05	150.25	7/10/2017	16:39	31.60	32.50
7/10/2017	20:05	155.95	156.15	7/10/2017	16:40	31.10	32.00
7/10/2017	20:10	159.60	159.80	7/10/2017	16:41	31.10	32.00
7/10/2017	20:15	162.15	162.35	7/10/2017	16:42	32.85	33.75
7/10/2017	20:20	164.05	164.25	7/10/2017	16:43	35.60	36.50
7/10/2017	20:25	165.65	165.85	7/10/2017	16:46	35.20	36.10
7/10/2017	20:30	167.37	167.57	7/10/2017	16:50	35.80	36.70
7/10/2017	21:47	179.52	179.72	7/10/2017	16:55	36.60	37.50
7/11/2017	0:02	187.24	187.44	7/10/2017	17:00	38.10	39.00
7/11/2017	1:56	190.18	190.38	7/10/2017	17:05	32.00	32.90
7/11/2017	23:02	195.10	195.30	7/10/2017	17:10	42.12	43.02
7/12/2017	1:41	195.96	196.16	7/10/2017	17:15	47.53	48.43
7/12/2017	3:48	196.41	196.61	7/10/2017	17:20	48.69	49.59
7/12/2017	6:28	196.38	196.58	7/10/2017	17:25	49.86	50.76
7/12/2017	7:35	196.14	196.34	7/10/2017	17:30	50.88	51.78
7/12/2017	8:58	192.44	192.64	7/10/2017	17:40	52.91	53.81
7/12/2017	10:44	191.34	191.54	7/10/2017	17:50	54.48	55.38
7/12/2017	11:38	192.41	192.61	7/10/2017	18:00	56.12	57.02
7/12/2017	12:46	192.30	192.50	7/10/2017	20:10	69.51	70.41
7/12/2017	13:05	192.32	192.52	7/10/2017	23:07	82.18	83.08
7/12/2017	13:07	192.32	192.52	7/11/2017	1:00	87.02	87.92
7/12/2017	13:11	192.32	192.52	7/11/2017	3:04	91.16	92.06
7/12/2017	13:50	192.12	192.32	7/11/2017	5:33	94.35	95.25
7/12/2017	14:28	191.83	192.03	7/11/2017	8:20	97.40	98.30
7/12/2017	15:33	191.75	191.95	7/11/2017	12:30	101.00	101.90
7/12/2017	16:43	191.68	191.88	7/11/2017	14:12	102.24	103.14
7/12/2017	18:17	191.58	191.78	7/11/2017	17:13	103.33	104.23
7/12/2017	19:01	191.50	191.70	7/11/2017	21:36	105.15	106.05
7/12/2017	21:52	191.51	191.71	7/12/2017	0:53	106.21	107.11
7/13/2017	0:51	192.19	192.39	7/12/2017	2:42	106.87	107.77
7/13/2017	3:42	192.81	193.01	7/12/2017	5:32	107.84	108.74
7/13/2017	6:20	192.87	193.07	7/12/2017	9:47	109.86	110.76
7/13/2017	7:58	192.75	192.95	7/12/2017	14:02	110.66	111.56
7/13/2017	9:05	192.93	193.13	7/12/2017	15:47	111.44	112.34
7/13/2017	9:51	192.80	193.00	7/12/2017	17:25	111.78	112.68
7/13/2017	1:38	192.97	193.17	7/12/2017	18:12	111.86	112.76
7/13/2017	11:25	192.92	193.12	7/12/2017	21:05	112.16	113.06
7/13/2017	12:20	193.00	193.20	7/12/2017	23:38	112.46	113.36
7/13/2017	14:20	192.98	193.18	7/13/2017	2:37	113.00	113.90

Date	Time	Depth to Water (feet below top of casing)	Depth to Water (feet below top of dip tube)	Date	Time	Depth to Water (feet below top of casing)	Depth to Water (feet below top of dip tube)
		C-12 (continued)	uip tuse)			C-14 (continued)	uip tuse)
7/13/2017	15:31	192.85	193.05	7/13/2017	5:07	74.77	75.67
7/13/2017	18:36	192.93	193.13	7/13/2017	5:32	94.37	95.27
7/13/2017	22:36	192.58	192.78	7/13/2017	5:41	99.35	100.25
7/14/2017	1:28	192.55	192.75	7/13/2017	6:40	105.35	106.25
7/14/2017	4:24	192.56	192.76	7/13/2017	8:35	109.02	109.92
7/14/2017	6:30	192.48	192.68	7/13/2017	10:11	110.65	111.55
7/14/2017	8:03	192.68	192.88	7/13/2017	12:22	111.45	112.35
7/14/2017	9:02	192.77	192.97	7/13/2017	14:27	112.76	113.66
7/14/2017	10:02	192.74	192.94	7/13/2017	17:43	113.88	114.78
7/14/2017	11:09	192.73	192.93	7/13/2017	19:00	113.93	114.83
7/14/2017	12:07	192.89	193.09	7/13/2017	21:11	72.45	73.35
7/14/2017	14:02	192.92	193.12	7/13/2017	21:19	97.26	98.16
7/14/2017	17:22	193.08	193.28	7/13/2017	21:24	100.77	101.67
7/14/2017	19:44	192.66	192.86	7/14/2017	0:26	109.69	110.59
7/14/2017	20:30	192.47	192.67	7/14/2017	3:07	112.68	113.58
7/14/2017	23:04	192.41	192.61	7/14/2017	5:24	113.66	114.56
7/15/2017	3:22	192.87	193.07	7/14/2017	8:00	115.55	116.45
7/15/2017	6:19	192.64	192.84	7/14/2017	9:30	115.85	116.75
7/15/2017	10:06	192.55	192.75	7/14/2017	11:01	116.43	117.33
7/15/2017	12:54	192.55	192.75	7/14/2017	12:32	116.78	117.68
7/15/2017	15:56	192.70	192.90	7/14/2017	15:16	117.32	118.22
7/15/2017	18:15	192.75	192.95	7/14/2017	18:22	117.96	118.86
7/15/2017	21:20	192.50	192.70	7/14/2017	21:49	118.15	119.05
7/15/2017	22:50	192.45	192.65	7/15/2017	2:00	115.17	116.07
7/16/2017	0:22	192.22	192.42	7/15/2017	5:23	117.62	118.52
7/16/2017	1:29	150.10	150.30	7/15/2017	9:44	119.08	119.98
7/16/2017	2:45	127.30	127.50	7/15/2017	12:12	119.32	120.22
7/16/2017	11:12	112.40	112.60	7/15/2017	14:47	119.81	120.71
7/16/2017	13:09	111.85	112.05	7/15/2017	15:44	119.92	120.82
7/16/2017	15:16	111.20	111.40	7/15/2017	16:30	120.35	121.25
7/17/2017	13:41	107.98	108.18	7/15/2017	18:50	120.70	121.60
7/17/2017	15:54	107.80	108.00	7/15/2017	20:24	120.90	121.80
7/17/2017	17:35	107.67	107.87	7/15/2017	22:05	121.04	121.94
7/18/2017	13:05	106.88	107.08	7/15/2017	23:15	121.15	122.05
7/18/2017	14:26	106.81	107.01	7/16/2017	1:15	121.30	122.20
7/18/2017	16:19	106.76	106.96	7/16/2017	2:20	81.85	82.75
7/19/2017	12:30	106.40	106.60	7/16/2017	11:52	54.70	55.60
7/25/2017	8:40	104.80		7/16/2017	13:50	50.65	51.55
7/27/2017	16:50	105.47	105.67	7/16/2017	16:20	47.75	48.65
7/28/2017	16:13	105.14	105.34	7/17/2017	12:26	26.30	27.20
				7/17/2017	15:21	24.10	25.00
				7/17/2017	17:13	22.81	23.71
				7/18/2017	12:44	12.59	13.49
				7/18/2017	14:31	11.70	12.60
				7/18/2017	16:21	11.09	11.99
				7/19/2017	13:10	6.30	7.20
		-		7/25/2017	9:10	0.26	1.16

Date	Time	Depth to Water (feet below top of	Depth to Water (feet below top of	Date	Time	Depth to Water (feet below top of	Depth to Water (feet below top of
		casing)	dip tube)			casing) C-23	dip tube)
7/7/2017	17.50	C-16	15.45	7/6/2017	12.57		42.25
7/7/2017	17:50	14.48	15.45	7/6/2017	13:57	42.95	43.35
7/10/2017	14:26	15.58	16.55	7/10/2017	11:50	43.32	43.72
7/10/2017	17:20	15.43	16.40	7/10/2017	12:45	48.02	48.42
7/10/2017	17:27	38.48	39.45	7/10/2017	13:00	49.35	49.75
7/10/2017	17:28	37.78	38.75	7/10/2017	13:00	74.65	75.05
7/10/2017	17:29	40.03	41.00	7/10/2017	13:01	93.30	93.70
7/10/2017	17:30	43.43	44.40	7/10/2017	13:02	102.85	103.25
7/10/2017	17:31	47.48	48.45	7/10/2017	13:03	106.83	107.23
7/10/2017	17:32	49.47	50.44	7/10/2017	13:04	107.65	108.05
7/10/2017	17:33	50.20	51.17	7/10/2017	13:05	105.80	106.20
7/10/2017	17:34	51.60	52.57	7/10/2017	13:06	100.95	101.35
7/10/2017	17:35	52.83	53.80	7/10/2017	13:07	99.10	99.50
7/10/2017	17:40	57.78	58.75	7/10/2017	13:08	96.35	96.75
7/10/2017	17:45	63.08	64.05	7/10/2017	13:09	94.60	95.00
7/10/2017	17:50	65.95	66.92	7/10/2017	13:10	92.90	93.30
7/10/2017	17:55	69.03	70.00	7/10/2017	13:11	91.50	91.90
7/10/2017	18:00	73.13	74.10	7/10/2017	13:13	90.93	91.33
7/10/2017	18:05	75.83	76.80	7/10/2017	13:14	90.75	91.15
7/10/2017	18:10	78.23	79.20	7/10/2017	13:24	92.10	92.50
7/10/2017	18:15	80.23	81.20	7/10/2017	13:34	93.70	94.10
7/10/2017	20:28	108.07	109.04	7/10/2017	13:44	95.15	95.55
7/10/2017	23:23	125.65	126.62	7/10/2017	14:21	99.35	99.75
7/11/2017	1:17	142.46	143.43	7/10/2017	14:36	100.76	101.16
7/11/2017	3:32	148.35	149.32	7/10/2017	14:51	102.24	102.64
7/11/2017	5:50	152.04	153.01	7/10/2017	15:06	103.41	103.81
7/11/2017	8:55	158.23	159.20	7/10/2017	15:21	104.60	105.00
7/11/2017	13:54	162.16	163.13	7/10/2017	15:54	106.90	107.30
7/11/2017	16:56	164.24	165.21	7/10/2017	16:20	108.77	109.17
7/11/2017	22:02	166.55	167.52	7/10/2017	16:50	110.73	111.13
7/12/2017	1:00	167.69	168.66	7/10/2017	17:20	112.45	112.85
7/12/2017	2:59	168.26	169.23	7/10/2017	18:20	115.80	116.20
7/12/2017	5:46	169.06	170.03	7/10/2017	19:18	118.63	119.03
7/12/2017	9:33	169.87	170.84	7/10/2017	22:30	126.97	127.37
7/12/2017	13:36	170.58	171.55	7/11/2017	0:33	131.31	131.71
7/12/2017	15:37	171.21	172.18	7/11/2017	2:32	129.64	130.04
7/12/2017	16:29	171.39	172.36	7/11/2017	5:06	135.94	136.34
7/12/2017	18:05	171.64	172.61	7/11/2017	7:42	140.85	141.25
7/12/2017	21:25	172.28	173.25	7/11/2017	10:02	143.70	144.10
7/12/2017	23:58	172.65	173.62	7/11/2017	12:01	146.37	146.77
7/13/2017	3:03	173.14	174.11	7/11/2017	14:47	144.70	145.10
7/13/2017	5:48	173.41	174.38	7/11/2017	16:00	147.74	148.14
7/13/2017	8:50	173.70	174.67	7/11/2017	18:05	150.25	150.65
7/13/2017	10:45	173.88	174.85	7/11/2017	20:50	145.50	145.90
7/13/2017	12:07	174.02	174.99	7/12/2017	0:29	154.13	154.53
7/13/2017	14:48	174.44	175.41	7/12/2017	0:39	152.37	152.77
7/13/2017	16:09	174.68	175.65	7/12/2017	2:00	153.58	153.98
7/13/2017	16:44	174.68	175.65	7/12/2017	4:48	155.48	155.88
7/13/2017	18:15	174.74	175.71	7/12/2017	10:43	158.20	158.60
7/13/2017	21:37	175.10	176.07	7/12/2017	10:53	161.31	161.71
7/14/2017	0:49	175.29	176.26	7/12/2017	11:05	162.61	163.01

Date	Time	Depth to Water (feet below top of casing)	Depth to Water (feet below top of dip tube)	Date	Time	Depth to Water (feet below top of casing)	Depth to Water (feet below top of dip tube)
		C-16 (continued)	aip tube)			C-23 (continued)	uip tube)
7/14/2017	2.24		177.50	7/12/2017	14.20		152.05
7/14/2017	3:24	175.53	176.50	7/12/2017	14:29	153.55	153.95
7/14/2017	5:48	175.75	176.72	7/12/2017	16:09	150.57	150.97
7/14/2017	9:00	176.08	177.05	7/12/2017	16:56	149.48	149.88
7/14/2017	10:26	176.13	177.10	7/12/2017	18:29	147.41	147.81
7/14/2017	12:20	176.34	177.31	7/12/2017	20:37	145.52	145.92
7/14/2017	15:59	176.46	177.43	7/12/2017	23:15	143.78	144.18
7/14/2017	18:45	176.66	177.63	7/13/2017	1:48	142.31	142.71
7/14/2017	22:18	176.95	177.92	7/13/2017	4:33	141.19	141.59
7/15/2017	2:14	177.20	178.17	7/13/2017	7:58	140.07	140.47
7/15/2017	5:42	177.45	178.42	7/13/2017	9:41	139.68	140.08
7/15/2017	9:47	177.54	178.51	7/13/2017	11:48	139.17	139.57
7/15/2017	12:40	177.47	178.44	7/13/2017	12:45	139.10	139.50
7/15/2017	16:40	177.48	178.45	7/13/2017	15:01	138.73	139.13
7/15/2017	18:40	177.58	178.55	7/13/2017	16:02	138.41	138.81
7/15/2017	20:30	177.68	178.65	7/13/2017	18:38	138.18	138.58
7/15/2017	22:30	177.88	178.85	7/13/2017	20:38	137.96	138.36
7/16/2017	0:09	177.90	178.87	7/13/2017	23:20	137.73	138.13
7/16/2017	1:40	152.43	153.40	7/14/2017	2:23	137.46	137.86
7/16/2017	2:26	142.03	143.00	7/14/2017	5:00	137.32	137.72
7/16/2017	11:41	93.78	94.75	7/14/2017	8:25	137.09	137.49
7/16/2017	13:30	87.74	88.71	7/14/2017	9:30	137.04	137.44
7/16/2017	16:04	80.63	81.60	7/14/2017	10:30	137.11	137.51
7/17/2017	12:42	49.11	50.08	7/14/2017	11:00	136.99	137.39
7/17/2017	15:28	46.78	47.75	7/14/2017	11:30	136.95	137.35
7/17/2017	17:20	45.43	46.40	7/14/2017	12:00	136.99	137.39
7/18/2017	12:55	35.78	36.75	7/14/2017	12:30	136.99	137.39
7/18/2017	14:43	34.54	35.51	7/14/2017	13:00	136.99	137.39
7/18/2017	16:31	34.18	35.15	7/14/2017	14:00	136.95	137.35
7/19/2017	14:40	27.96	28.93	7/14/2017	14:30	136.98	137.38
7/25/2017	9:00	16.93	17.90	7/14/2017	15:00	136.95	137.35
7/27/2017	16:24	16.25	17.22	7/14/2017	15:30	136.95	137.35
7/28/2017	17:00	14.98	15.95	7/14/2017	16:06	136.84	137.24
7/29/2017	13:30	14.83	15.80	7/14/2017	18:44	136.85	137.25
				7/14/2017	21:17	136.80	137.20
				7/15/2017	0:48	136.75	137.15
				7/15/2017	4:18	136.78	137.18
				7/15/2017	6:49	136.79	137.19
				7/15/2017	8:46	136.87	137.27
				7/15/2017	11:18	136.93	137.33
				7/15/2017	13:30	137.05	137.45
				7/15/2017	14:09	137.05	137.45
				7/15/2017	17:15	137.10	137.50
				7/15/2017	19:00	137.20	137.60
				7/15/2017	21:50	137.05	137.45
				7/15/2017	23:30	137.20	137.60
					2:05	89.85	90.25
				7/16/2017			
				7/16/2017	16:53	75.70	76.10
				7/17/2017	11:03	67.53	67.93
				7/17/2017	15:08	66.00	66.40
				7/17/2017	17:00	65.42	65.82

Date	Time	Depth to Water (feet below top of	Depth to Water (feet below top of	Date	Time	Depth to Water (feet below top of	Depth to Water (feet below top of
		casing)	dip tube)			casing)	dip tube)
						C-23 (continued)	
				7/18/2017	12:22	60.40	60.80
				7/18/2017	14:02	59.96	60.36
				7/18/2017	16:03	59.48	59.88
				7/19/2017	14:00	55.17	55.57
				7/25/2017	9:50	44.40	44.80
		C-21				C-21 (continued)	
7/6/2017	13:42	49.20	49.54	7/25/2017	11:48	83.86	84.20
7/10/2017	11:42	49.36	49.70	7/25/2017	11:49	84.93	85.27
7/10/2017	11:56	49.41	49.75	7/25/2017	11:50	85.16	85.50
7/10/2017	11:57	81.81	82.15	7/25/2017	11:51	85.13	85.47
7/10/2017	12:00	82.49	82.83	7/25/2017	11:52	85.31	85.65
7/10/2017	12:03	81.54	81.88	7/25/2017	11:53	84.66	85.00
7/10/2017	12:06	82.77	83.11	7/25/2017	11:54	84.23	84.57
7/10/2017	12:08	83.35	83.69	7/25/2017	12:00	84.86	85.20
7/10/2017	12:09	83.62	83.96	7/25/2017	12:06	86.31	86.65
7/10/2017	12:10	84.00	84.34	7/25/2017	12:11	87.41	87.75
7/10/2017	12:11	84.23	84.57	7/25/2017	12:16	88.26	88.60
7/10/2017	12:15	85.44	85.78	7/25/2017	12:20	88.81	89.15
7/10/2017	12:20	86.37	86.71	7/25/2017	12:25	89.49	89.83
7/10/2017	12:25	87.28	87.62	7/25/2017	12:30	90.36	90.70
7/10/2017	12:30	88.17	88.51	7/25/2017	12:40	91.51	91.85
7/10/2017	12:35	89.00	89.34	7/25/2017	12:50	92.69	93.03
7/10/2017	12:40	89.58	89.92	7/25/2017	13:00	93.76	94.10
7/10/2017	12:45	90.32	90.66	7/25/2017	13:20	95.53	95.87
7/10/2017	12:55	91.59	91.93	7/25/2017	13:40	97.11	97.45
7/10/2017	13:05	92.77	93.11	7/25/2017	14:00	98.51	98.85
7/10/2017	13:15	94.63	94.97	7/25/2017	14:30	100.31	100.65
7/10/2017	13:25	95.92	96.26	7/25/2017	15:00	101.81	102.15
7/10/2017	13:35	97.31	97.65	7/25/2017	15:30	103.24	103.58
7/10/2017	13:50	99.38	99.72	7/25/2017	16:00	104.56	104.90
7/10/2017	14:05	99.90	100.24	7/25/2017	16:30	105.71	106.05
7/10/2017	14:20	102.46	102.80	7/25/2017	17:00	106.91	107.25
7/10/2017	14:35	103.67	104.01	7/25/2017	17:30	107.96	108.30
7/10/2017	14:50	105.13	105.47	7/25/2017	18:00	108.96	109.30
7/10/2017	15:05	106.21	106.55	7/25/2017	18:30	109.89	110.23
7/10/2017	15:20	107.47	107.81	7/25/2017	19:00	110.94	111.28
7/10/2017	15:50	109.62	109.96	7/25/2017	20:00	112.55	112.89
7/10/2017	16:20	102.02	102.36	7/25/2017	21:00	114.21	114.55
7/10/2017	17:48	116.81	117.15	7/25/2017	22:00	115.56	115.90
7/10/2017	19:47	122.68	123.02	7/25/2017	23:00	116.97	117.31
7/10/2017	22:47	130.00	130.34	7/26/2017	0:00	118.33	118.67
7/11/2017	0:46	133.43	133.77	7/26/2017	1:00	119.52	119.86
7/11/2017	2:49	97.81	98.15	7/26/2017	2:00	120.56	120.90
7/11/2017	3:00	124.75	125.09	7/26/2017	3:00	121.69	122.03
7/11/2017	5:18	138.01	138.35	7/26/2017	4:00	122.71	123.05
7/11/2017	8:00	142.86	143.20	7/26/2017	5:00	123.67	124.01
7/11/2017	9:50	142.76	143.10	7/26/2017	6:00	124.62	124.96
7/11/2017	10:30	143.91	144.25	7/26/2017	7:00	125.56	125.90
7/11/2017	11:04	145.21	145.55	7/26/2017	8:00	126.41	126.75

		Depth to Water	Depth to Water			Depth to Water	Depth to Water
Date	Time	(feet below top of	(feet below top of	Date	Time	(feet below top of	(feet below top of
		casing)	dip tube)			casing)	dip tube)
		C-21 (continued)				C-21 (continued)	
7/11/2017	11:36	146.39	146.73	7/26/2017	9:00	127.21	127.55
7/11/2017	12:36	145.41	145.75	7/26/2017	10:00	128.06	128.40
7/11/2017	13:36	144.46	144.80	7/26/2017	11:00	128.76	129.10
7/11/2017	13:46	122.06	122.40	7/26/2017	12:00	129.61	129.95
7/11/2017	13:48	120.60	120.94	7/26/2017	13:00	130.19	130.53
7/11/2017	13:50	118.21	118.55	7/26/2017	14:00	130.51	130.85
7/11/2017	14:33	138.39	138.73	7/26/2017	15:00	131.26	131.60
7/11/2017	14:38	140.22	140.56	7/26/2017	16:00	132.06	132.40
7/11/2017	14:43	141.15	141.49	7/26/2017	17:00	132.53	132.87
7/11/2017	15:00	144.18	144.52	7/26/2017	18:00	133.06	133.40
7/11/2017	15:46	147.28	147.62	7/26/2017	19:00	133.79	134.13
7/11/2017	16:43	149.25	149.59	7/26/2017	20:00	134.63	134.97
7/11/2017	17:39	150.57	150.91	7/26/2017	21:00	134.81	135.15
7/11/2017	21:12	144.95	145.29	7/26/2017	22:00	135.44	135.78
7/12/2017	0:07	152.27	152.61	7/26/2017	23:00	136.01	136.35
7/12/2017	0:45	153.08	153.42	7/27/2017	0:00	136.51	136.85
7/12/2017	1:23	153.82	154.16	7/27/2017	1:00	136.94	137.28
7/12/2017	2:19	154.69	155.03	7/27/2017	2:00	137.50	137.84
7/12/2017	5:13	156.67	157.01	7/27/2017	3:00	138.02	138.36
7/12/2017	9:01	158.80	159.14	7/27/2017	4:00	138.48	138.82
7/12/2017	10:19	159.40	159.74	7/27/2017	5:00	138.71	139.05
7/12/2017	11:56	160.53	160.87	7/27/2017	6:00	139.28	139.62
7/12/2017	11:57	137.99	138.33	7/27/2017	7:00	139.63	139.97
7/12/2017	12:02	136.22	136.56	7/27/2017	8:00	139.98	140.32
7/12/2017	12:05	131.22	131.56	7/27/2017	9:00	140.39	140.73
7/12/2017	12:11	132.74	133.08	7/27/2017	10:00	140.72	141.06
7/12/2017	12:20	130.15	130.49	7/27/2017	11:00	141.20	141.54
7/12/2017	12:29	128.37	128.71	7/27/2017	12:00	141.66	142.00
7/12/2017	14:44	127.20	127.54	7/27/2017	13:00	142.04	142.38
7/12/2017	16:44	113.10	113.44	7/27/2017	14:00	142.26	142.60
7/12/2017	20:53	108.23	108.57	7/27/2017	16:00	143.03	143.37
7/12/2017	23:25	106.40	106.74	7/27/2017	17:00	143.34	143.68
7/13/2017	2:07	104.85	105.19	7/27/2017	18:00	143.61	143.95
7/13/2017	4:57	103.46	103.80	7/27/2017	19:00	143.86	144.20
7/13/2017	9:56	101.91	102.25	7/27/2017	20:00	144.19	144.53
7/13/2017	13:59	101.28	101.62	7/27/2017	21:00	144.53	144.87
7/13/2017	17:19	100.56	100.90	7/27/2017	22:00	144.79	145.13
7/13/2017	20:56	100.04	100.38	7/27/2017	23:00	145.14	145.48
7/13/2017	23:58	99.75	100.09	7/28/2017	0:00	145.36	145.70
7/14/2017	2:43	99.59	99.93	7/28/2017	1:00	145.67	146.01
7/14/2017	5:05	99.47	99.81	7/28/2017	2:00	145.82	146.16
7/14/2017	10:47	99.11	99.45	7/28/2017	3:00	146.16	146.50
7/14/2017	12:35	99.05	99.39	7/28/2017	4:00	146.40	146.74
7/14/2017	16:44	98.94	99.28	7/28/2017	5:00	146.65	146.99
7/14/2017	18:39	98.86	99.20	7/28/2017	6:00	146.76	147.10
7/14/2017	21:31	98.79	99.13	7/28/2017	7:00	147.05	147.39
7/15/2017	1:05	98.73	99.07	7/28/2017	8:00	147.31	147.65
7/15/2017	5:02	98.70	99.04	7/28/2017	9:00	147.46	147.80
7/15/2017	12:02	98.78	99.12	7/28/2017	10:00	147.73	148.07

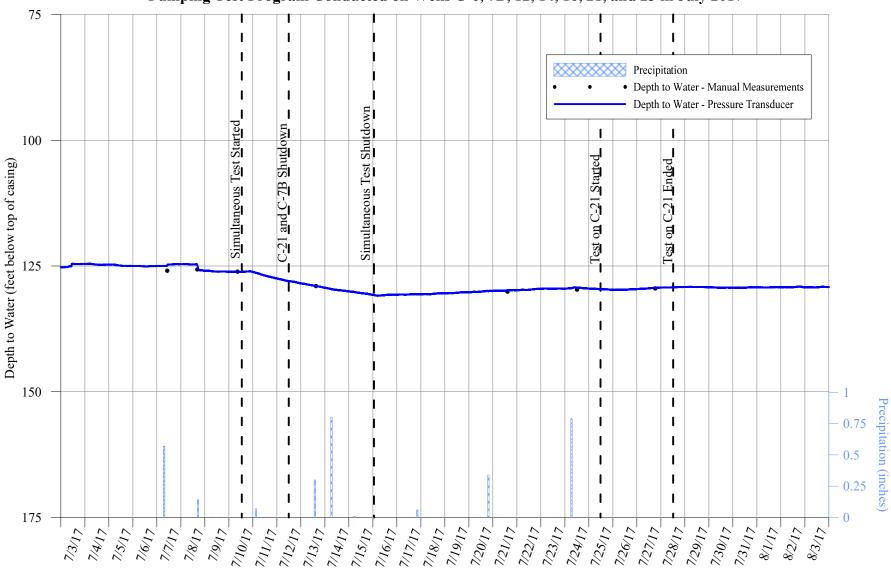
Manual Water-Level Measurements Collected from Onsite Pumping Wells During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Depth to Water (feet below top of casing)	Depth to Water (feet below top of dip tube)	Date	Time	Depth to Water (feet below top of casing)	Depth to Water (feet below top of dip tube)
	C-21 (continued)		C-21 (continued)				
7/16/2017	12:04	83.87	84.21	7/28/2017	11:00	148.01	148.35
7/16/2017	14:10	82.55	82.89	7/28/2017	12:00	148.11	148.45
7/17/2017	11:25	73.36	73.70	7/28/2017	12:14	148.21	148.55
7/17/2017	15:13	73.07	73.41	7/28/2017	12:16	124.59	124.93
7/17/2017	17:06	71.56	71.90	7/28/2017	12:17	123.11	123.45
7/18/2017	12:30	66.82	67.16	7/28/2017	12:18	122.66	123.00
7/18/2017	14:08	67.46	67.80	7/28/2017	12:19	121.96	122.30
7/18/2017	16:13	66.05	66.39	7/28/2017	12:20	121.31	121.65
7/19/2017	11:30	62.79	63.13	7/28/2017	12:25	119.06	119.40
7/19/2017	14:20	62.16	62.50	7/28/2017	12:30	117.36	117.70
7/19/2017	17:05	61.71	62.05	7/28/2017	12:40	115.14	115.48
7/25/2017	10:50	52.24	52.58	7/28/2017	12:50	113.26	113.60
7/25/2017	11:40	52.31	52.65	7/28/2017	13:00	111.53	111.87
7/25/2017	11:45	78.19	78.53	7/28/2017	13:12	110.01	110.35
7/25/2017	11:46	82.21	82.55	7/28/2017	13:22	100.04	100.38
7/25/2017	11:47	83.64	83.98				

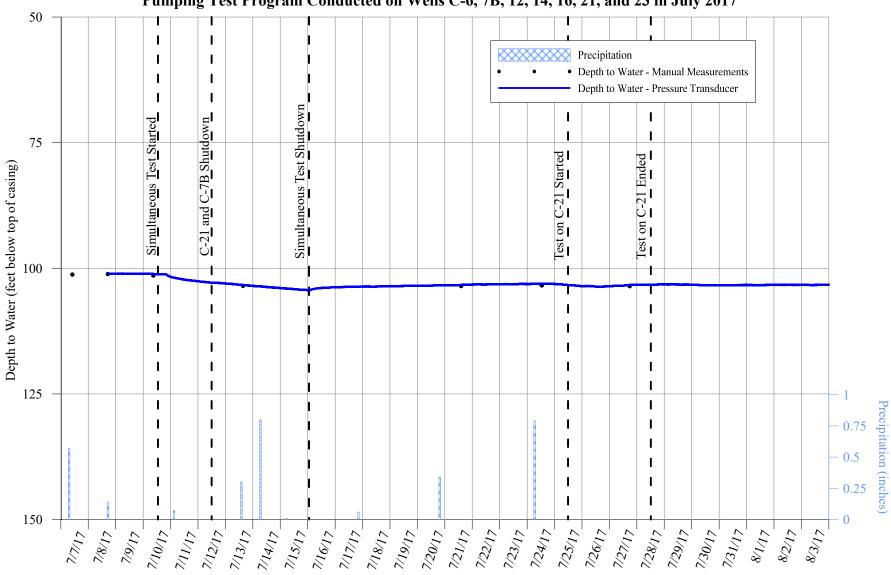
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ONSITE MONITORING WELLS

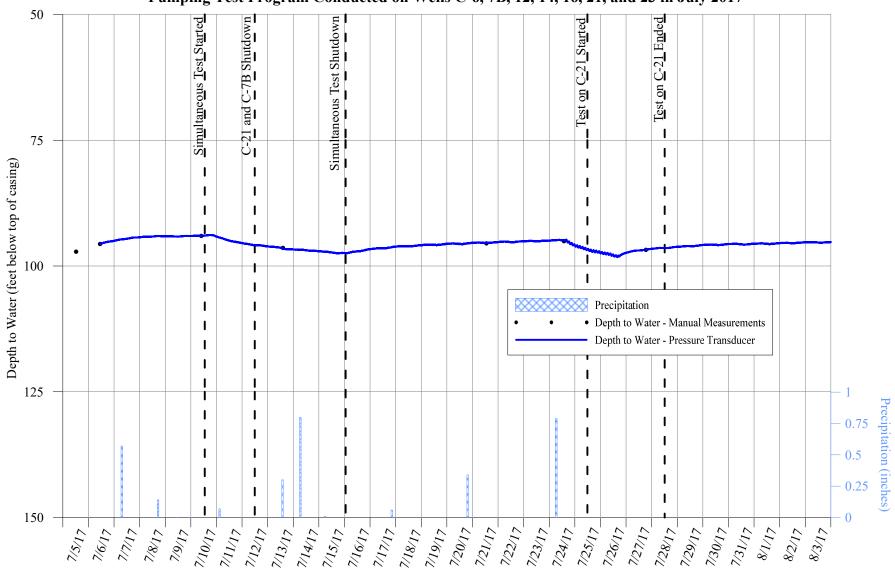
Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-1 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



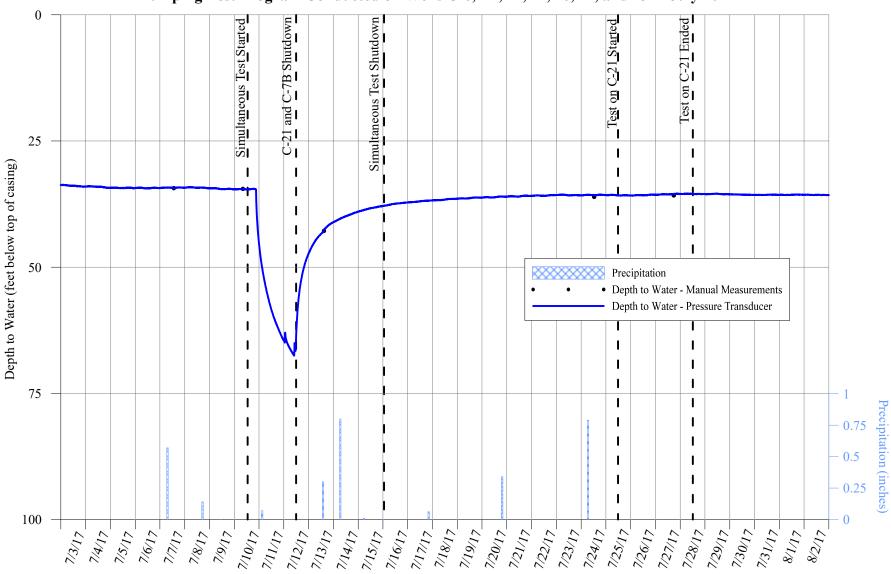
Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-4 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



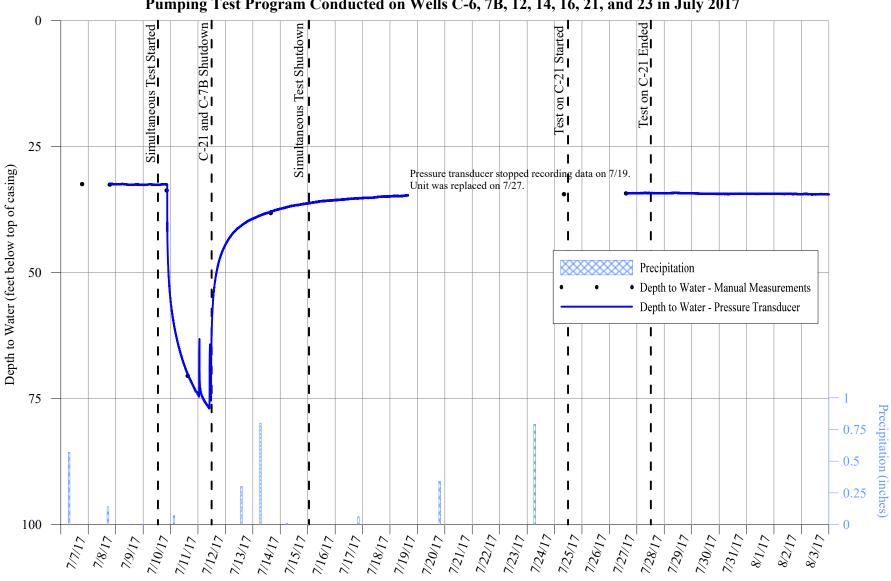
Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-5 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



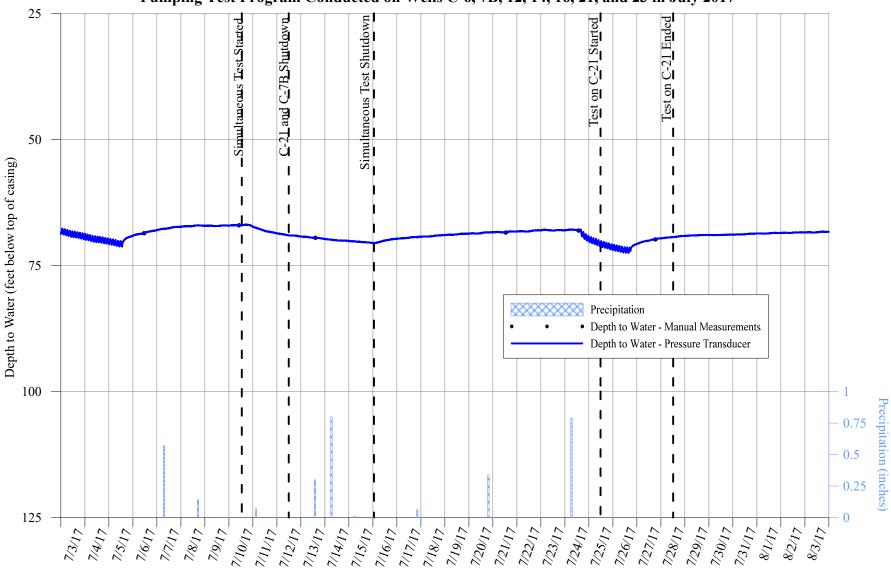
Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-7 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017

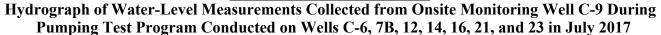


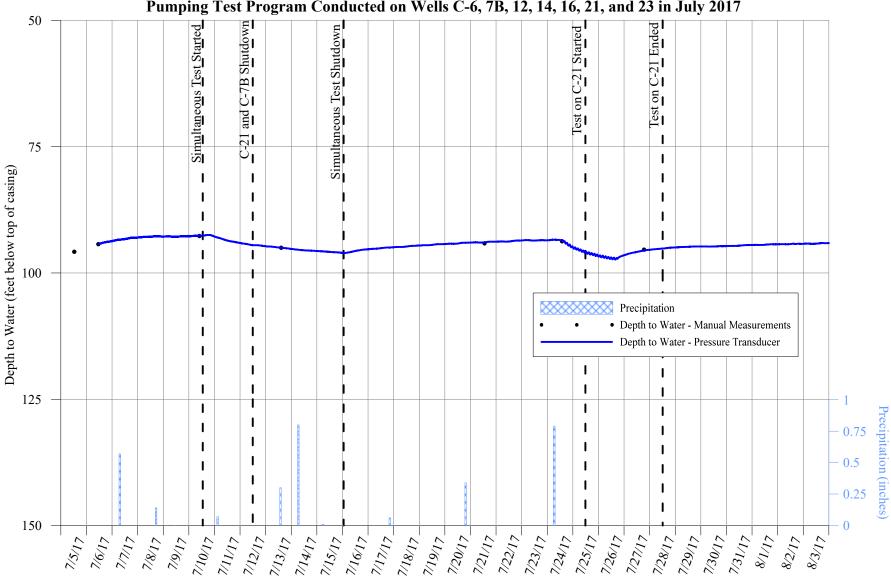
Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-7A During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017

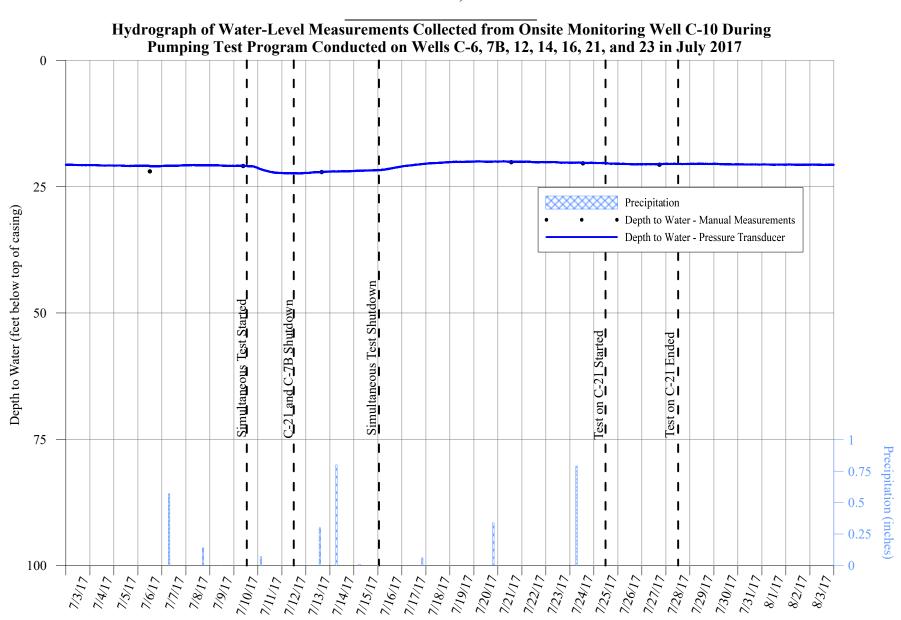


Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-8 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017

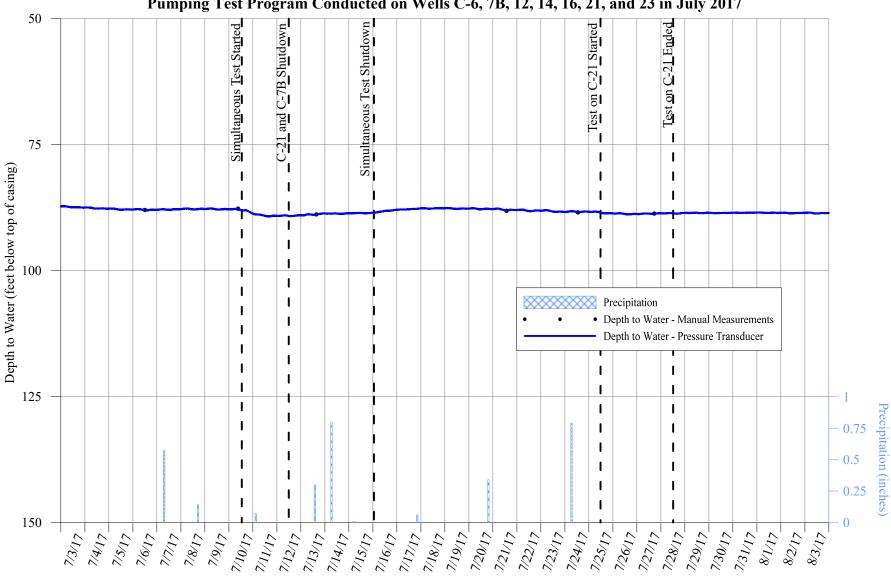




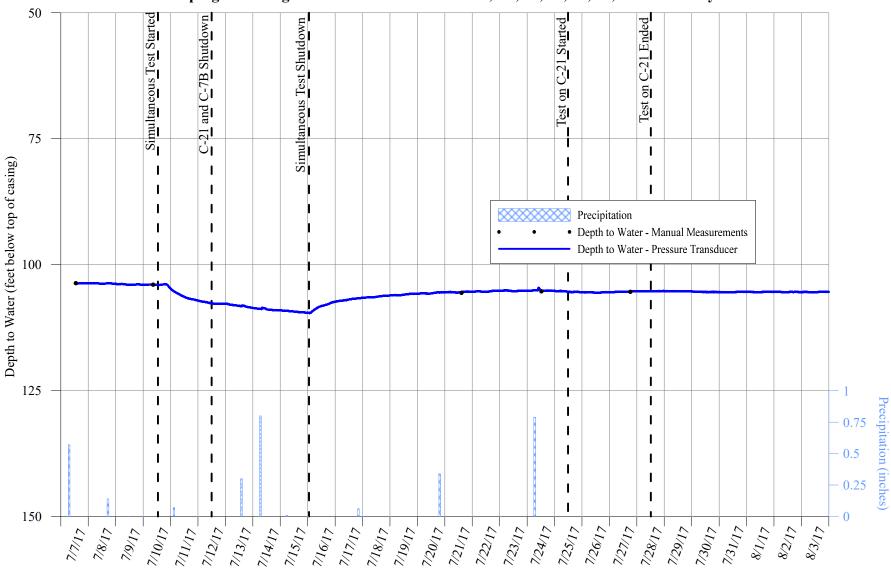




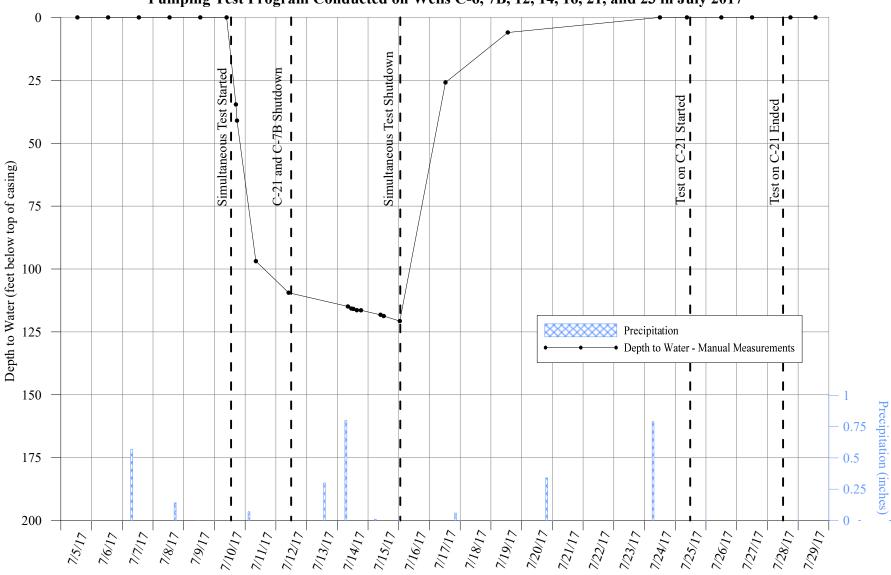
Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-11 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



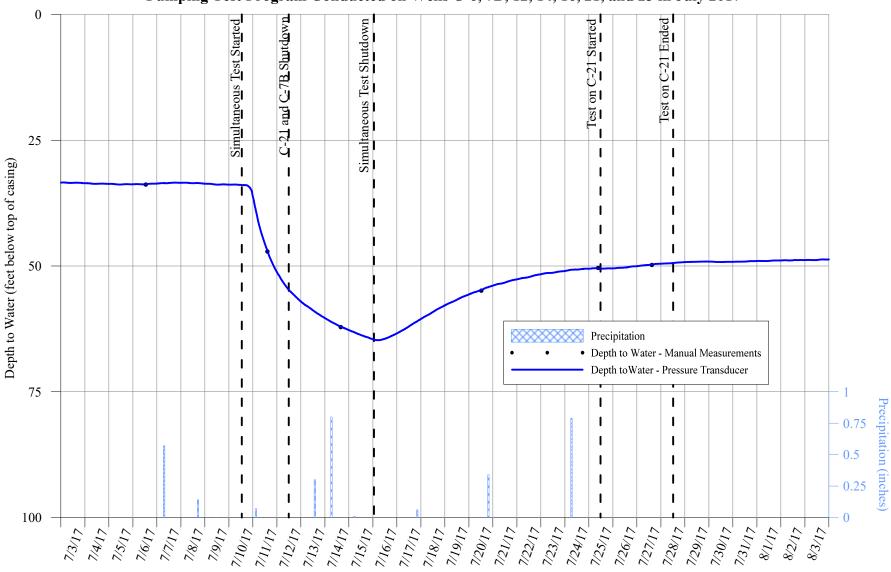
Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-13 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



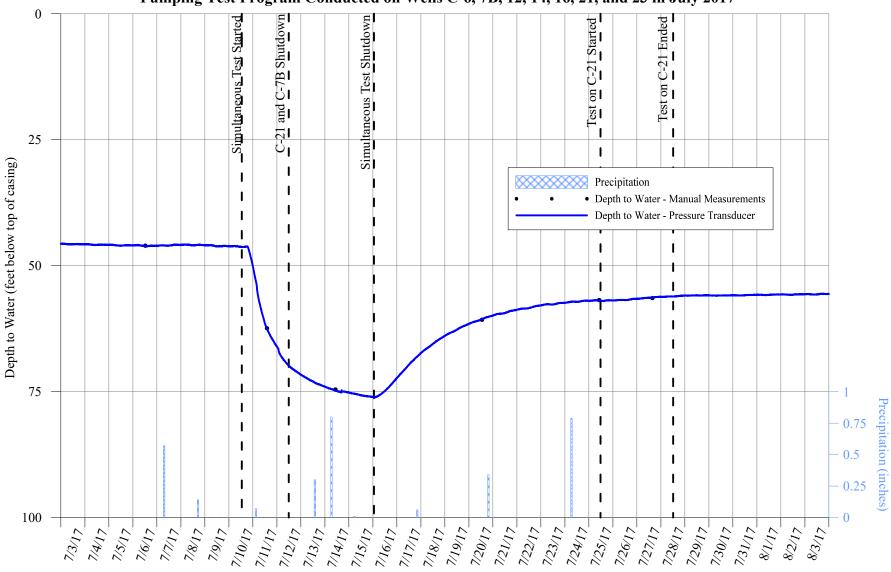
Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-14A During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



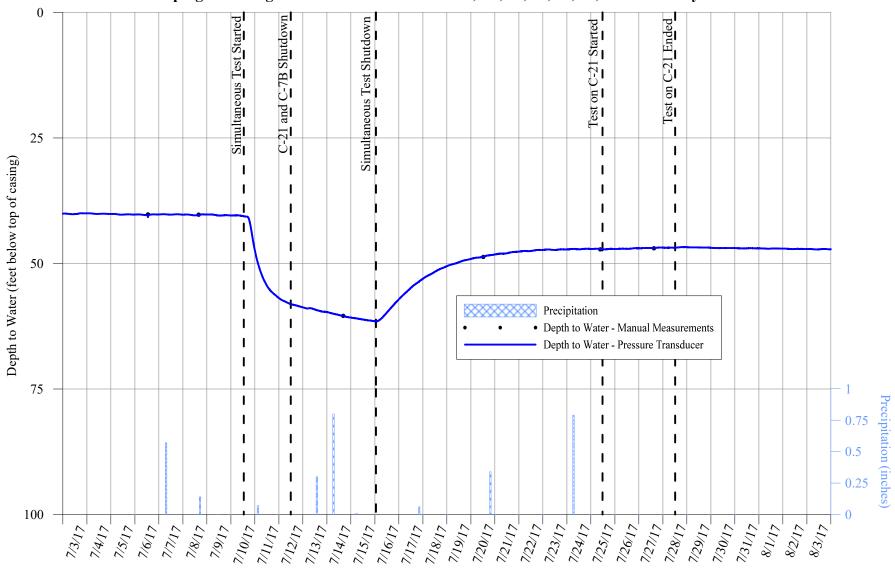
Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-15 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



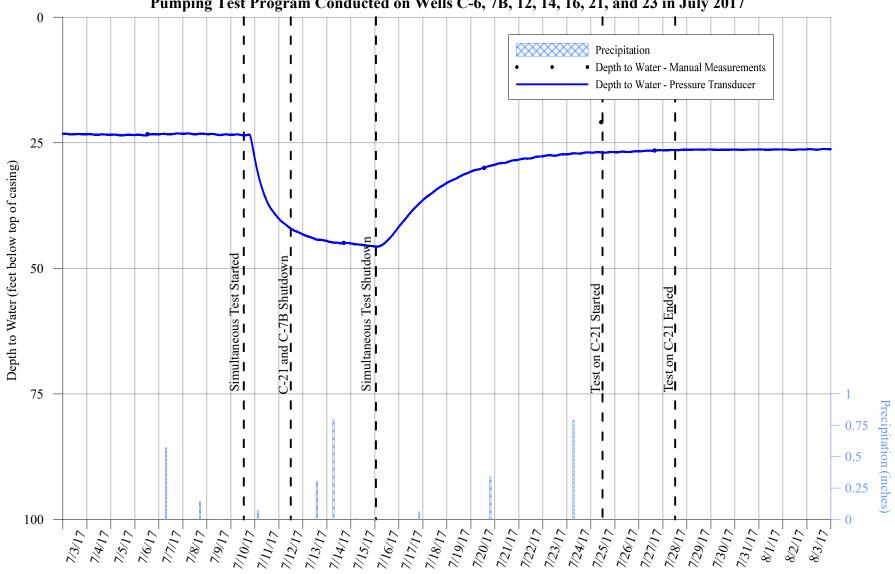
Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-17 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



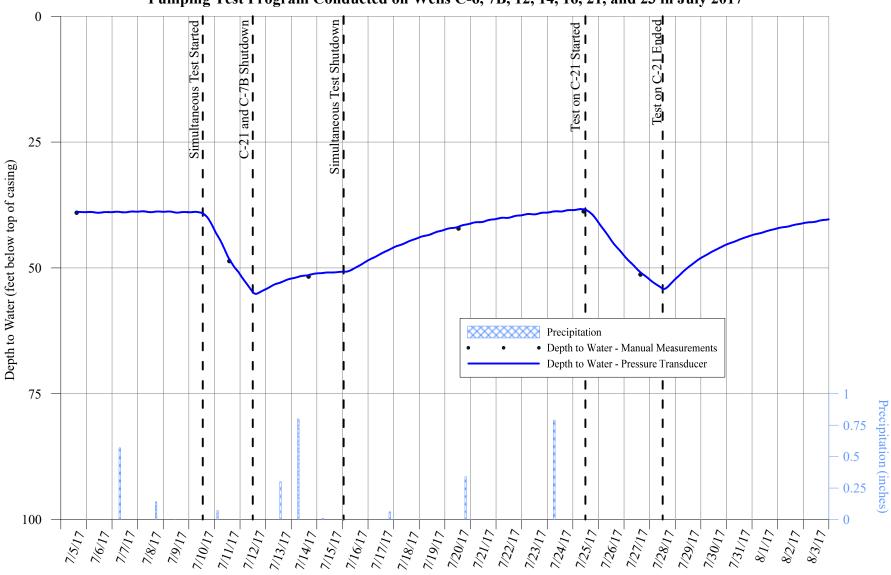
Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-18 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



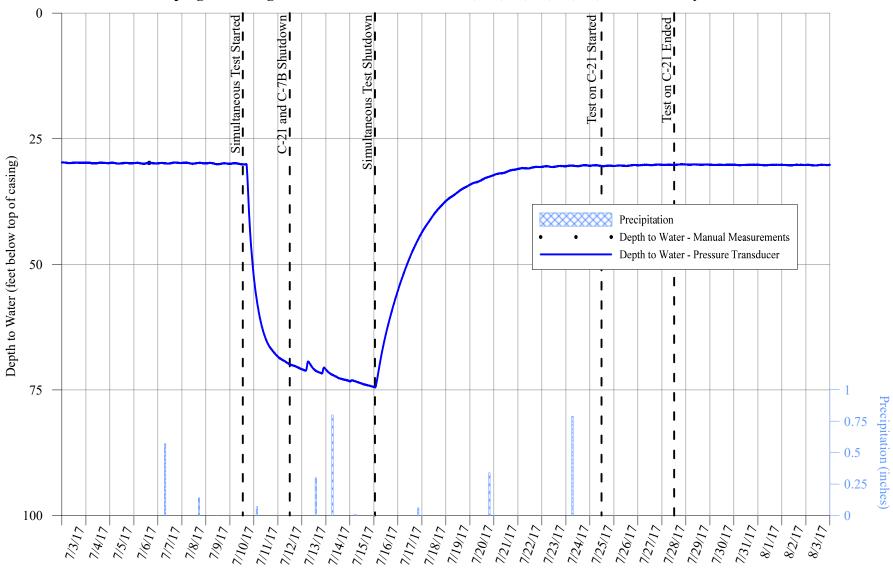
Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-19 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-20 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Hydrograph of Water-Level Measurements Collected from Onsite Monitoring Well C-22 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Manual Water-Level Measurements Collected from Onsite Monitoring Wells During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

		Depth to Water			Depth to Water
Date	Time	(feet below top of casing)	Date	Time	(feet below top of casing)
	<u>I</u>	C-1		<u>I</u>	C-4
6/29/2017	13:30	125.68	7/7/2017	10:05	101.25
7/7/2017	10:25	125.95	7/8/2017	17:10	101.15
7/8/2017	16:30	125.70	7/10/2017	9:00	101.45
7/10/2017	8:43	126.12	7/13/2017	15:20	103.50
7/13/2017	15:08	129.00	7/21/2017	14:15	103.55
7/21/2017	14:43	130.10	7/24/2017	12:50	103.43
7/24/2017	12:10	129.70	7/27/2017	17:45	103.56
7/27/2017	18:25	129.45	8/14/2017	16:57	103.15
8/14/2017	17:05	128.80			
0/11/2017	17.03	C-5			C-7
6/29/2017	15:05	91.89	6/21/2017	17:10	33.00
7/5/2017	12:30	97.16	7/7/2017	13:30	34.35
7/6/2017	10:56	95.65	7/10/2017	8:20	34.50
7/0/2017	9:50	94.03	7/13/2017	14:52	42.82
7/13/2017	14:23	96.43	7/24/2017	12:35	36.08
7/21/2017	13:10	95.50	7/27/2017	17:50	35.80
7/24/2017	13:50	95.08			
7/27/2017	18:40	96.80			
8/14/2017	17:47	94.55			
0/14/2017	1/.7/	C-7A			C-8
6/30/2017	17:10	32.09	6/21/2017	13:13	65.44
7/7/2017	18:37	32.45	7/6/2017	11:25	68.62
7/8/2017	18:48	32.55	7/10/2017	10:10	67.05
7/10/2017	20:41	33.70	7/13/2017	14:38	69.52
7/11/2017	15:04	70.50	7/21/2017	12:58	68.50
7/14/2017	15:40	38.20	7/24/2017	13:43	68.10
7/25/2017	8:17	34.45	7/27/2017	18:35	69.85
7/27/2017	14:36	34.30	8/14/2017	17:35	67.55
8/8/2017	13:03	34.68			
0/0/2017	13.03	C-9			C-10
6/29/2017	15:10	90.51	6/21/2017	13:58	20.75
7/5/2017	12:34	95.81	7/6/2017	11:59	21.97
7/6/2017	11:12	94.30	7/10/2017	9:20	20.90
7/0/2017	9:57	92.68	7/13/2017	15:50	22.12
7/13/2017	14:32	95.03	7/21/2017	13:26	20.15
7/21/2017	13:15	94.15	7/24/2017	13:10	20.13
7/24/2017	13:52	93.73	7/27/2017	17:38	20.65
7/27/2017	18:45	95.40	8/8/2017	16:35	20.85
8/14/2017	17:57	93.15	8/14/2017	16:40	20.70
5/11/2017	17.57	C-11	5/11/2017	10.10	C-13
6/21/2017	14:17	87.10	7/7/2017	13:05	103.68
7/6/2017	12:06	87.10 87.97	7/10/2017	8:50	103.98
7/10/2017	9:15	87.72	7/1/2017	15:15	103.98
7/10/2017	15:35	88.85	7/21/2017	14:35	105.60
7/13/2017	13:33	88.15	7/24/2017	12:30	105.30
7/24/2017	13:47	88.45	7/24/2017	18:20	105.40
7/24/2017	17:30	88.70	8/14/2017	17:15	105.25
8/8/2017	16:20	88.80			
8/14/2017	16:39	88.50			
0/14/201/	10:39	00.30			

Manual Water-Level Measurements Collected from Onsite Monitoring Wells During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Depth to Water (feet below top of casing)	Date	Time	Depth to Water (feet below top of casing)
		C-14A		<u>l</u>	C-15
6/29/2017	13:00	Flowing	6/30/2017	17:30	33.37
7/3/2017	13:00	Flowing	7/6/2017	12:58	33.84
7/5/2017	13:00	Flowing	7/11/2017	14:38	47.13
7/6/2017	13:00	Flowing	7/14/2017	15:58	62.17
7/7/2017	13:00	Flowing	7/20/2017	12:30	54.92
7/8/2017	13:00	Flowing	7/25/2017	9:20	50.40
7/9/2017	13:00	Flowing	7/27/2017	15:03	49.80
7/10/2017	9:30	Flowing	8/8/2017	14:00	48.60
7/10/2017	16:50	34.60	8/14/2017	13:32	48.20
7/10/2017	17:36	41.02			
7/11/2017	8:22	96.90			
7/12/2017	10:00	109.45			
7/12/2007	18:13	111.62			
7/14/2017	8:13	114.90			
7/14/2017	10:58	115.76			
7/14/2017	12:37	115.89			
7/14/2017	15:19	116.38			
7/14/2017	18:30	116.43			
7/15/2017	9:46	118.23			
7/15/2017	12:20	118.73			
7/16/2017	0:50	120.70			
7/17/2017	12:33	25.86			
7/19/2017	13:10	6.00			
7/24/2017	12:00	Flowing			
7/25/2017	9:10	Flowing			
7/26/2017	12:00	Flowing			
7/27/2017	12:00	Flowing			
7/28/2017	18:00	Flowing			
7/29/2017	13:40	Flowing			
8/8/2017	13:20	Flowing			
	C-17	C-18			
7/6/2017	12:30	46.04	7/6/2017	13:07	40.25
7/11/2017	14:10	62.45	7/8/2017	15:50	40.30
7/14/2017	10:40	74.60	7/14/2017	16:25	60.45
7/20/2017	13:03	60.75	7/20/2017	12:30	48.72
7/25/2017	10:20	56.85	7/25/2017	9:30	47.20
7/27/2017	15:32	56.45	7/27/2017	15:12	47.00
8/8/2017	15:15	55.60	8/8/2017	14:07	47.60
8/14/2017	15:24	55.90	8/14/2017	13:40	47.70
		C-19	C-20		
7/6/2017	12:40	23.32	7/5/2017	14:50	39.05
7/14/2017	16:54	44.93	7/11/2017	13:57	48.65
7/20/2017	13:20	30.00	7/14/2017	16:20	51.75
7/25/2017	10:30	20.90	7/20/2017	12:50	42.20
7/27/2017	15:44	26.55	7/25/2017	10:10	38.80
8/8/2017	15:25	26.30	7/27/2017	15:25	51.32
8/14/2017	15:31	26.20	8/8/2017	15:05	39.00
			8/14/2017	15:10	47.95

Manual Water-Level Measurements Collected from Onsite Monitoring Wells During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

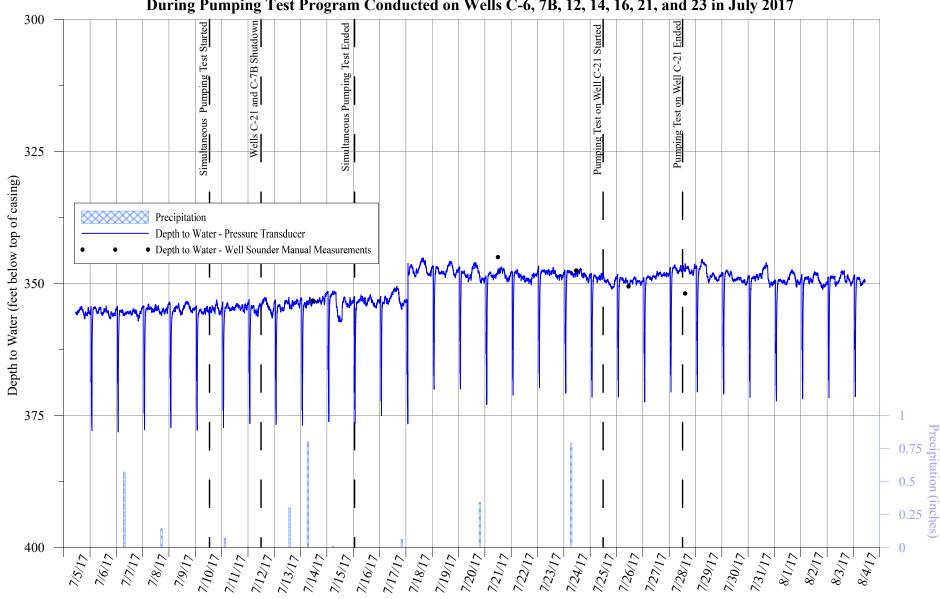
Date	Time	Depth to Water (feet below top of casing)	Date	Time	Depth to Water (feet below top of casing)
C-22					
6/21/2017	16:39	45.00			
7/6/2017	15:20	29.82			
8/8/2017	13:43	30.35			1
8/14/2017	13:17	30.22			

 $K:\label{loss} Lake\ Anne\ Clovewood\ 2017\ Report\ Onsite\ MW\ table. doc$

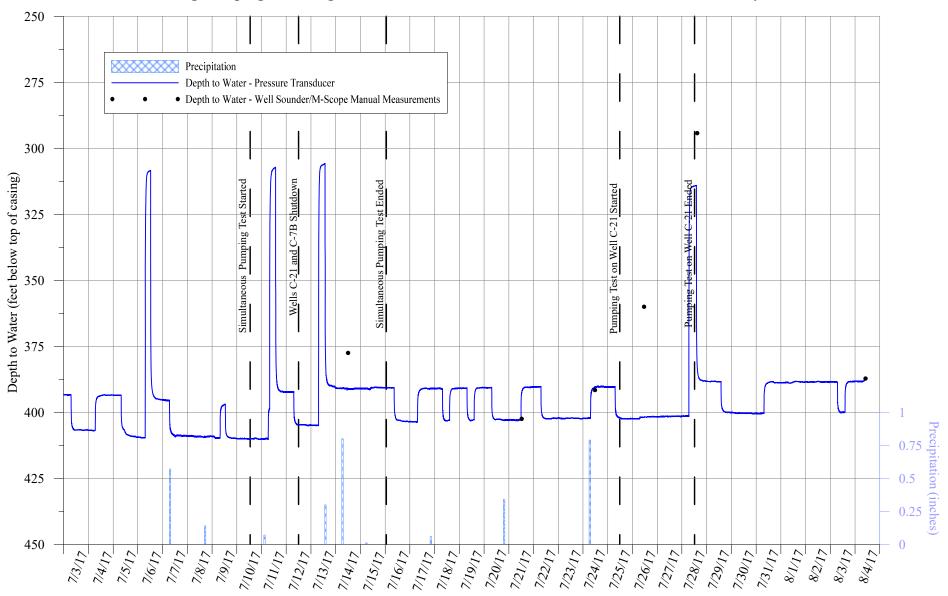
APPENDIX VII

OFFSITE MONITORING WELLS

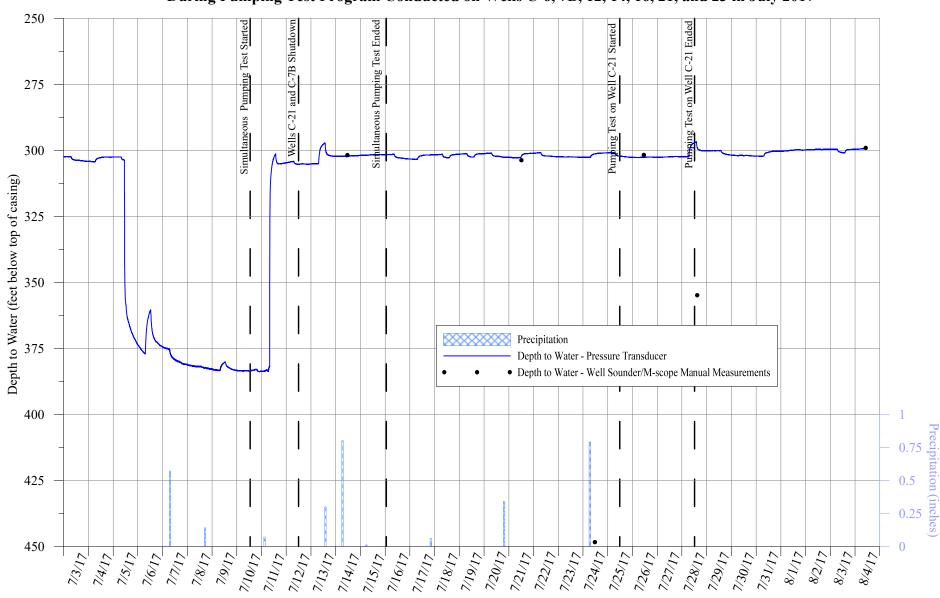
Hydrograph of Water-Level Measurements Collected from Merrieworld Baseball Field Well During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



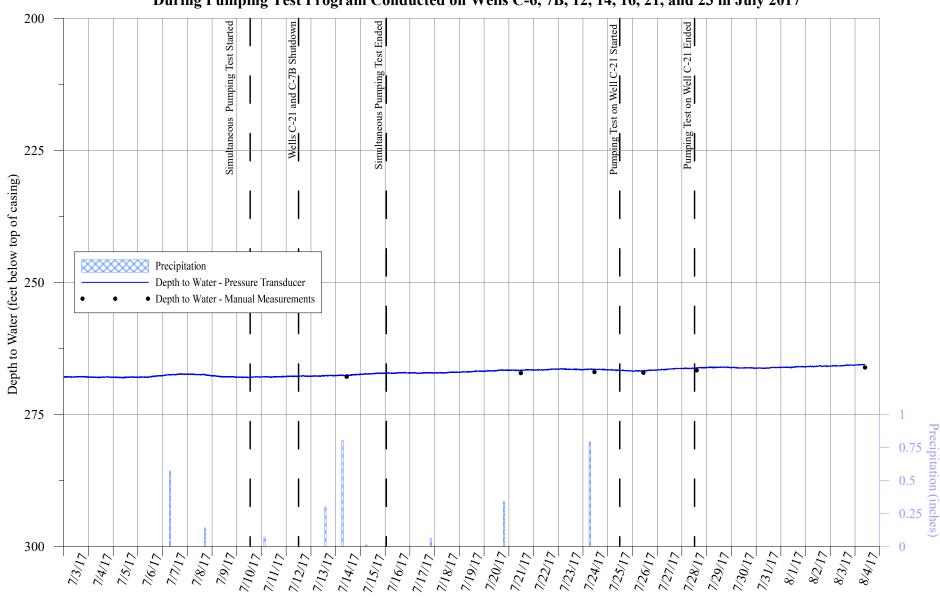
Hydrograph of Water-Level Measurements Collected from Merrieworld Well 1 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



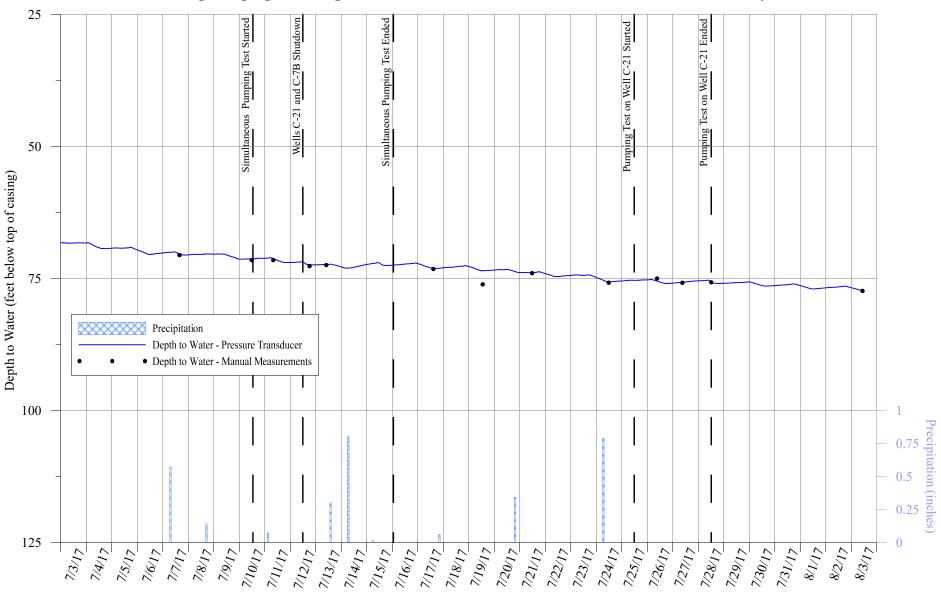
Hydrograph of Water-Level Measurements Collected from Merrieworld Well 3 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



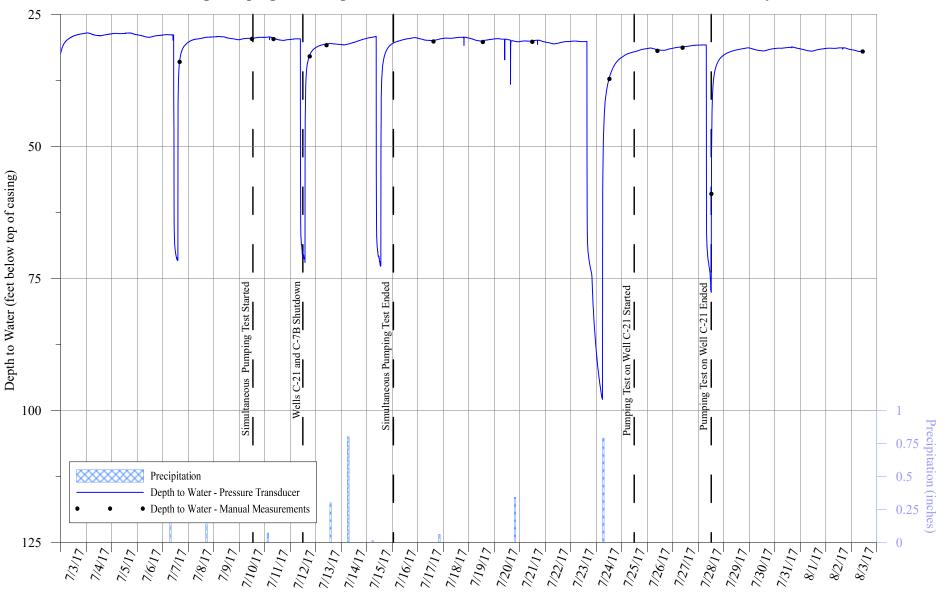
Hydrograph of Water-Level Measurements Collected from Village of South Blooming Grove Well 8 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



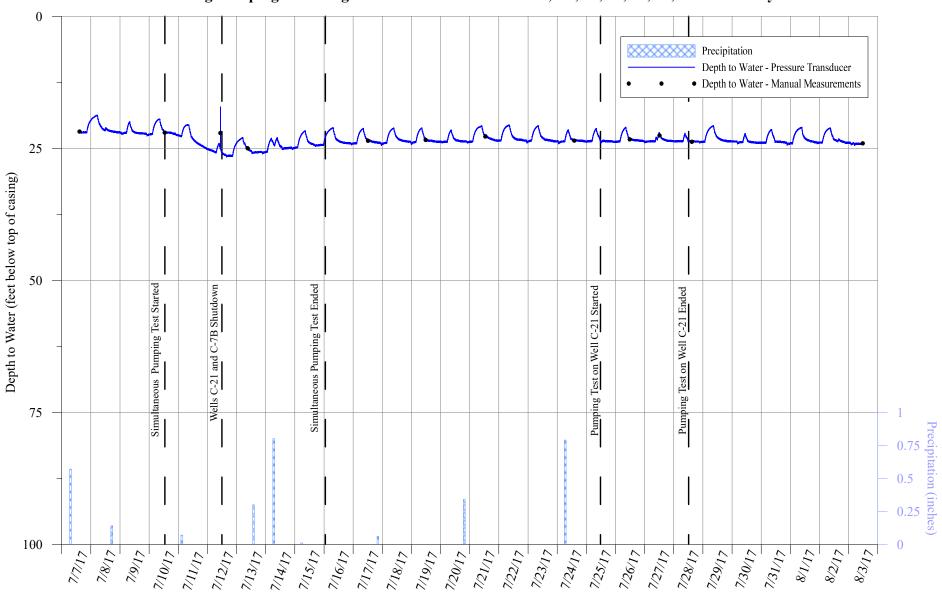
Hydrograph of Water-Level Measurements Collected from Woodbury Heights North Well During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



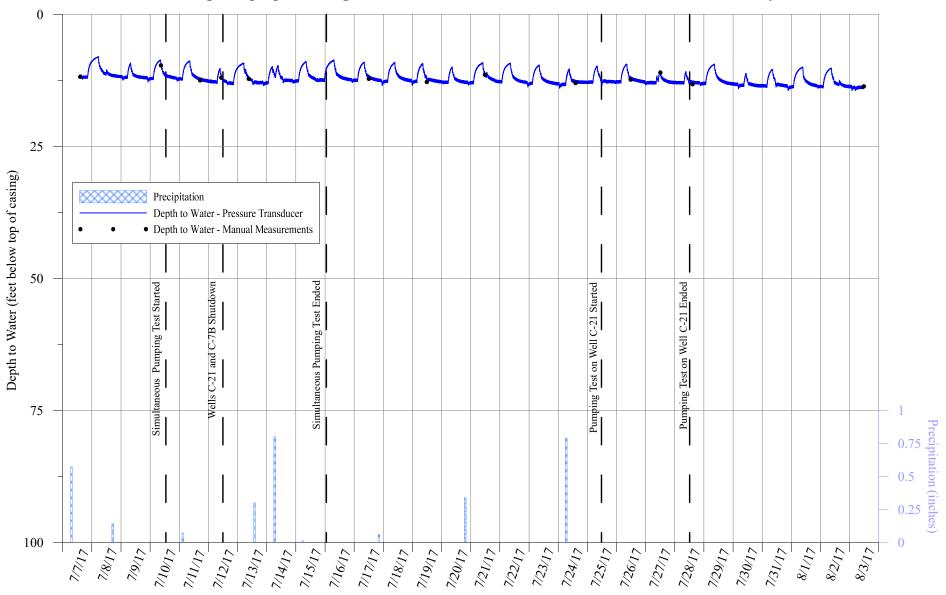
Hydrograph of Water-Level Measurements Collected from Woodbury Heights East Well During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



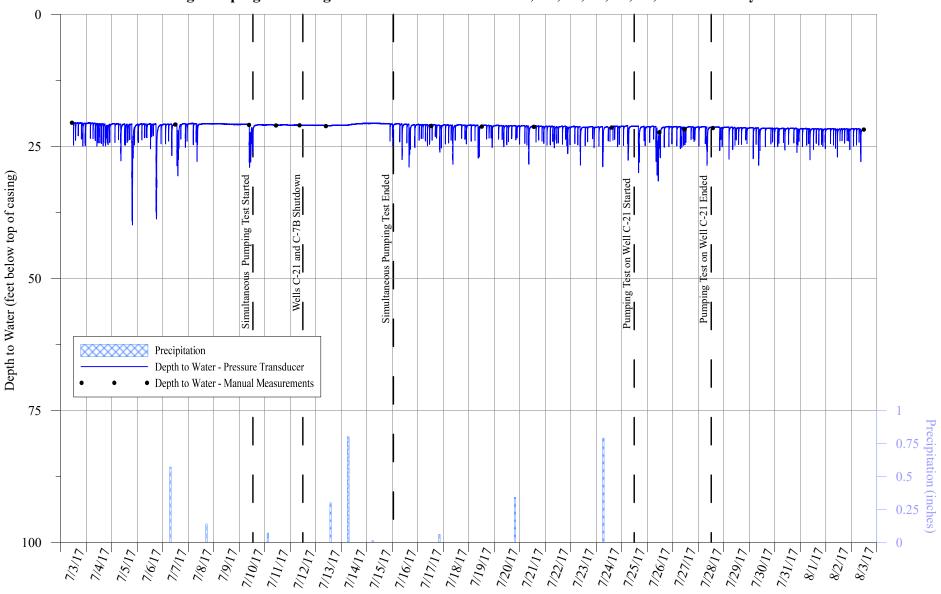
Hydrograph of Water-Level Measurements Collected from Mountain Lodge Well 2 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



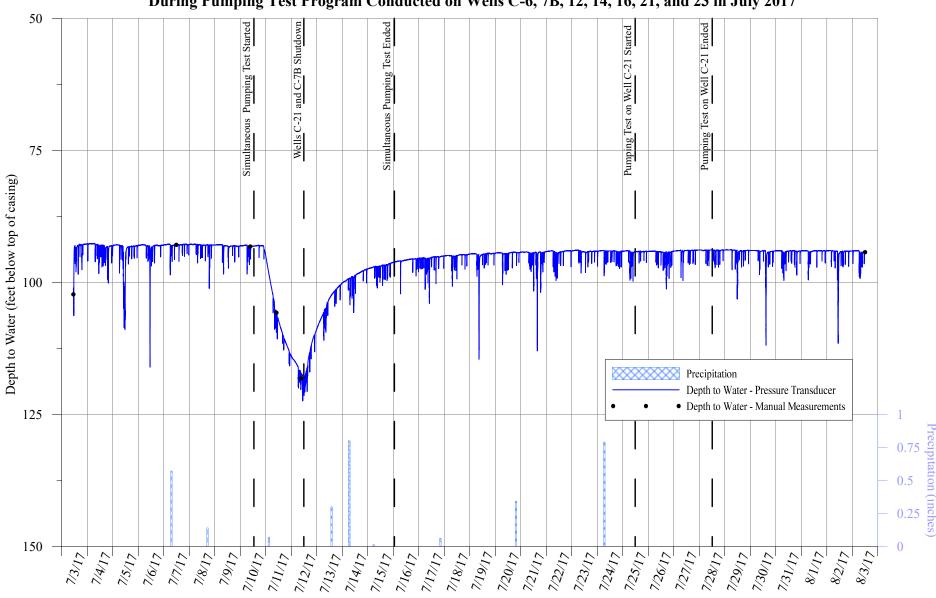
Hydrograph of Water-Level Measurements Collected from Mountain Lodge Well 1 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



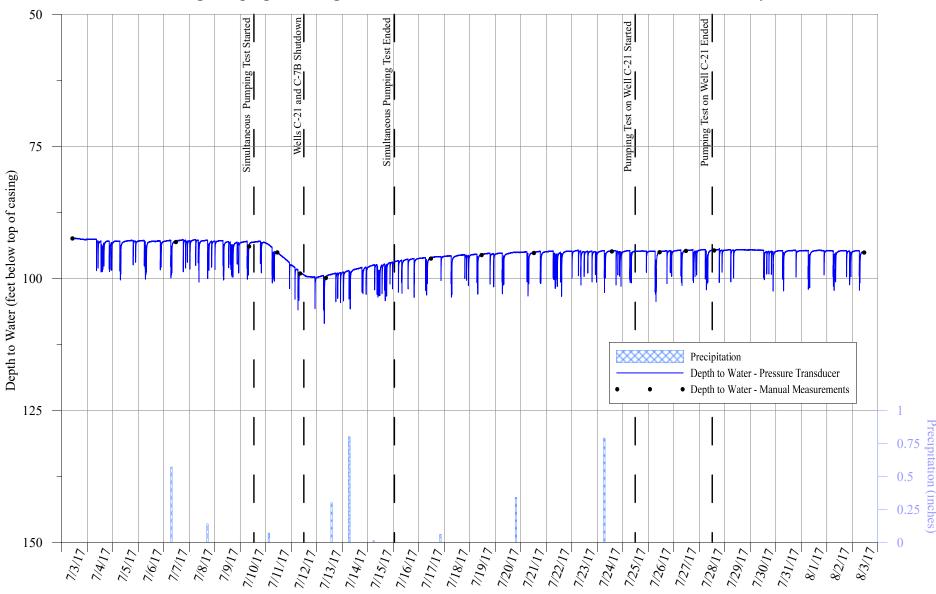
Hydrograph of Water-Level Measurements Collected from Well Located at 35 Round Hill Road During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



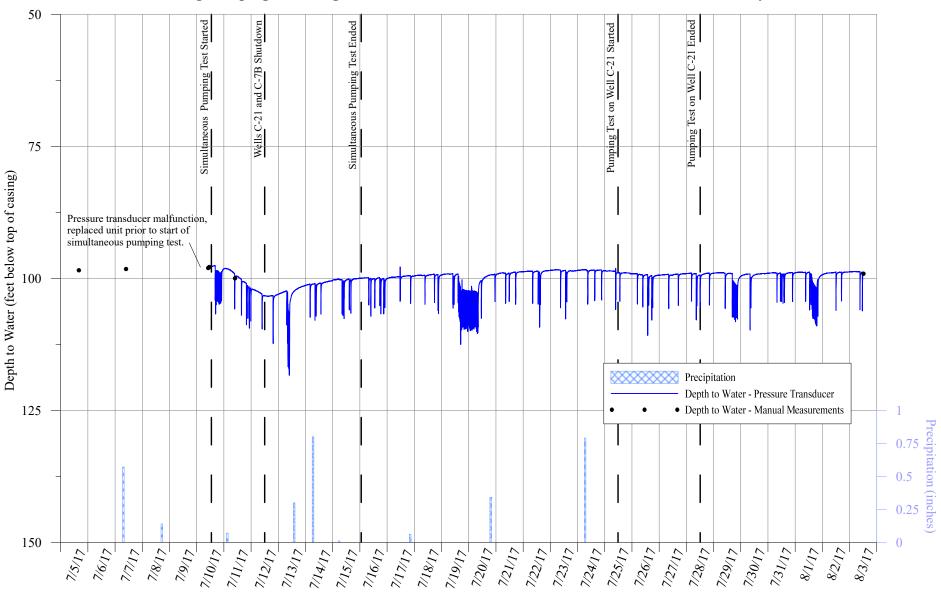
Hydrograph of Water-Level Measurements Collected from Well Located at 562 Clove Road During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



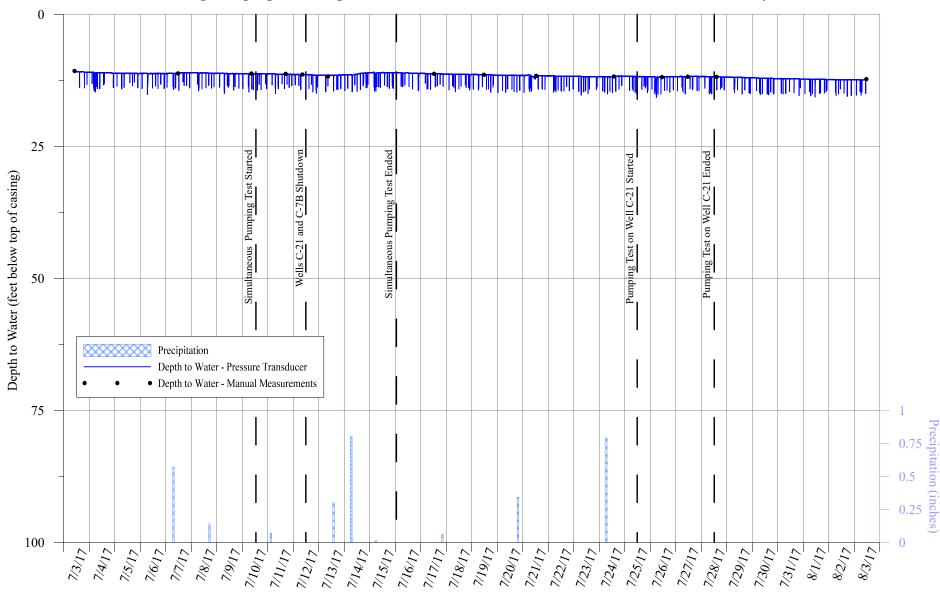
Hydrograph of Water-Level Measurements Collected from Well Located at 481 Clove Road During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



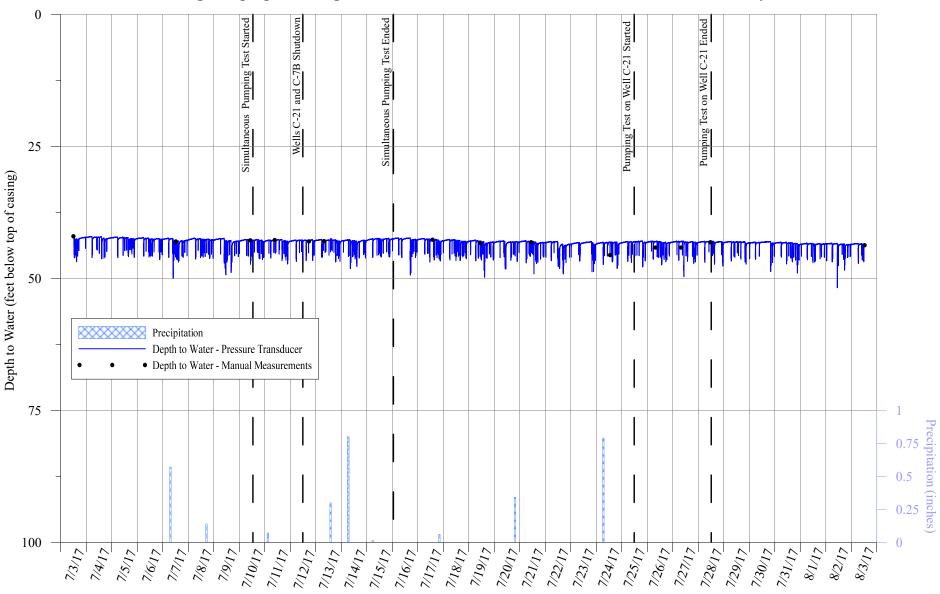
Hydrograph of Water-Level Measurements Collected from Well Located at 568 Clove Road During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



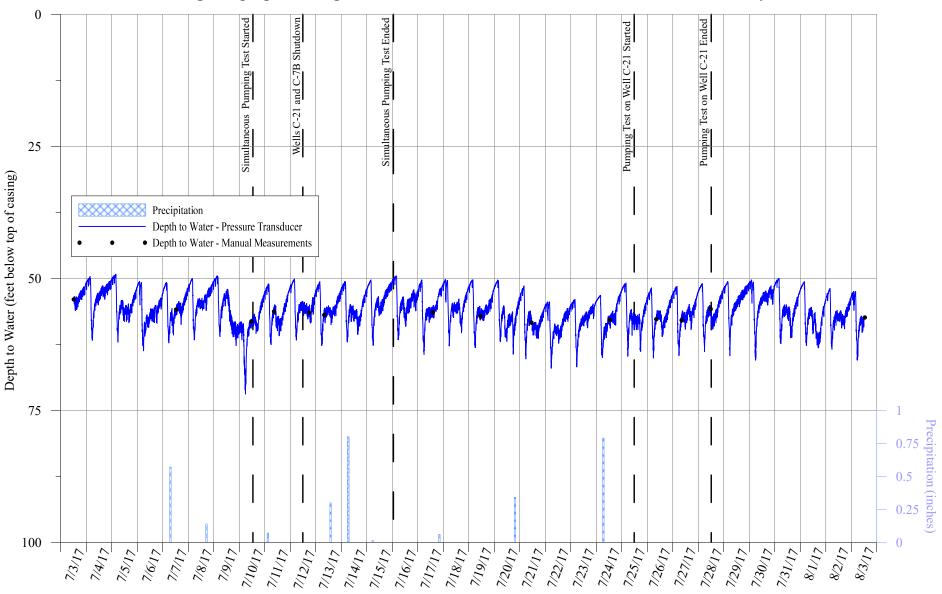
Hydrograph of Water-Level Measurements Collected from Well Located at 479 Clove Road During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



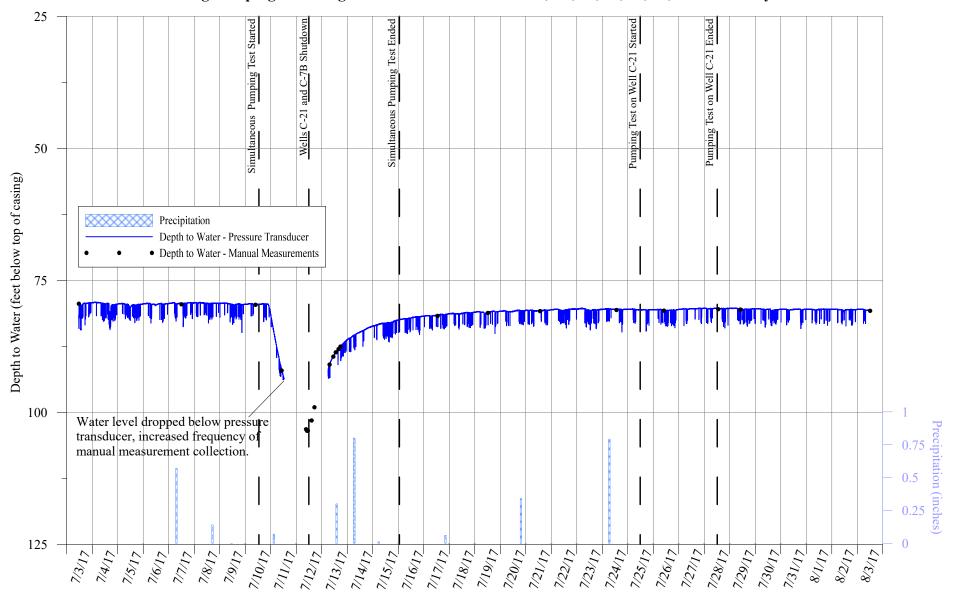
Hydrograph of Water-Level Measurements Collected from Well Located at 1235 Route 208 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Hydrograph of Water-Level Measurements Collected from Well Located at 1195 Route 208 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Hydrograph of Water-Level Measurements Collected from Well Located at 564 Clove Road During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Manual Water-Level Measurements Collected from Offsite Monitoring Wells During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Depth to Water (ft btoc)	Date	Time	Depth to Water (ft btoc)	Date	Time	Depth to Water (ft btoc)		
	481 (Clove Road		35 Rou	ınd Hill Road		564	Clove Road		
7/3/2017	10:10	92.45	7/3/2017	10:38	20.55	7/3/2017	11:28	79.43		
7/7/2017	11:30	93.15	7/7/2017	11:50	20.89	7/7/2017	12:05	79.54		
7/10/2017	8:23	93.99	7/10/2017	9:15	20.96	7/10/2017	9:43	79.63		
7/11/2017	10:56	95.11	7/11/2017	10:40	21.08	7/11/2017	10:20	92.09		
7/12/2017	8:24	99.09	7/12/2017	8:50	21.04	7/12/2017	9:20	103.22		
7/13/2017	8:38	99.94	7/13/2017	9:35	21.19	7/12/2017	10:18	103.50		
7/17/2017	11:29	96.28	7/17/2017	12:47	21.15	7/12/2017	11:01	103.47		
7/19/2017	11:15	95.61	7/19/2017	12:13	21.28	7/12/2017	14:35	101.55		
7/21/2017	12:27	95.21	7/21/2017	13:16	21.32	7/12/2017	17:13	99.06		
7/24/2017	13:43	94.91	7/24/2017	14:32	21.45	7/13/2017	7:28	90.97		
7/26/2017	10:46	95.07	7/26/2017	11:22	22.36	7/13/2017	11:00	89.46		
7/27/2017	11:27	94.82	7/27/2017	11:12	21.78	7/13/2017	13:21	88.64		
7/28/2017	14:01	94.72	7/28/2017	13:46	21.54	7/13/2017	15:50	88.03		
8/3/2017	11:14	95.13	8/3/2017	11:50	21.83	7/13/2017	17:40	87.55		
						7/17/2017	13:08	81.74		
						7/19/2017	12:27	81.18		
						7/21/2017	13:30	80.84		
						7/24/2017	13:24	80.61		
						7/26/2017	10:08	80.74		
		-				7/29/2017	10:04	80.54		
						7/28/2017	13:09	80.47		
						8/3/2017	12:10	80.78		
	1195	Route 208		1235	Route 208		479	O Clove Road		
7/3/2017	12:20	54.00	7/3/2017	12:03	42.05	7/3/2017	10:20	10.75		
7/7/2017	12:35	55.91	7/7/2017	12:25	43.04	7/7/2017	11:35	11.20		
7/10/2017	11:29	58.17	7/10/2017	10:26	42.81	7/10/2017	8:44	11.24		
7/11/2017	8:48	56.29	7/11/2017	9:30	42.77	7/11/2017	17:00	11.30		
7/12/2017	17:53	56.53	7/12/2017	17:38	43.01	7/12/2017	8:38	11.42		
7/13/2017	8:06	56.94	7/13/2017	7:51	42.99	7/13/2017	8:46	11.76		
7/17/2017	14:15	56.51	7/17/2017	13:58	42.71	7/17/2017	12:37	11.27		
7/19/2017	11:05	57.20	7/19/2017	10:51	43.32	7/19/2017	11:33	11.46		
7/21/2017	11:09	58.41	7/21/2017	10:48	43.19	7/21/2017	12:35	11.66		
7/24/2017	12:45	57.90	7/24/2017	13:03	45.61	7/24/2017	13:52	11.79		
7/26/2017	8:28	57.76	7/26/2017	7:40	44.19	7/26/2017	11:08	11.91		
7/27/2017	8:26	57.97	7/27/2017	7:45	44.19	7/27/2017	11:20	11.84		
7/28/2017	11:42	55.83	7/28/2017	11:25	43.18	7/28/2017	14:23	11.88		
8/3/2017	12:48	57.44	8/3/2017	12:35	43.74	8/3/2017	11:20	12.30		

Manual Water-Level Measurements Collected from Offsite Monitoring Wells During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

D.4:	TP*	D. 41.4. W.4. (6.1.4)	D. t.	TP*	D (1. 4. W. 4 (6. 1.4)	Dete	TP*	D. d. A. W. A. (C. L.)	
Date	Time	Depth to Water (ft btoc)	Date	Time	Depth to Water (ft btoc)	Date	Time	Depth to Water (ft btoc)	
		Clove Road			Clove Road			Water System - East Well	
7/3/2017	10:59	102.30	7/5/2017	16:05	98.50	7/7/2017	16:00	34.01	
7/7/2017	12:00	92.90	7/7/2017	9:41	98.26	7/10/2017	12:01	29.68	
7/10/2017	9:32	93.23	7/10/2017	10:11	98.07	7/11/2017	8:15	29.71	
7/11/2017	10:05	105.78	7/10/2017	11:09	97.88	7/12/2017	18:28	32.98	
7/12/2017	9:13	118.23	7/11/2017	9:48	100.00	7/13/2017	10:14	30.85	
8/3/2017	12:05	94.31	8/3/2017	12:18	99.15	7/17/2017	14:51	30.16	
						7/19/2017	13:17	30.25	
						7/21/2017	11:52	30.22	
						7/24/2017	12:25	37.25	
						7/26/2017	9:34	31.93	
						7/27/2017		31.35	
						7/28/2017	12:25		
						8/3/2017	10:50	32.05	
1	Mountain Lodge Well 1			Mountai	n Lodge Well 2	Woodbury	7/2017 9:21 31.35 8/2017 12:25 59.02 3/2017 10:50 32.05 sodbury Heights Water System - North Well 7/2017 15:50 70.62 0/2017 11:53 71.59 1/2017 8:05 71.56 2/2017 18:17 72.71		
7/7/2017	14:30	11.84	7/7/2017	14:40	21.84	7/7/2017	15:50	70.62	
7/10/2017	8:59	9.69	7/10/2017	12:55	22.03	7/10/2017	11:53	71.59	
7/11/2017	17:13	12.52	7/12/2017	10:43	22.11	7/11/2017	8:05	71.56	
7/12/2017	10:37	12.01	7/13/2017	9:10	25.00	7/12/2017	18:17	72.71	
7/13/2017	9:18	12.23	7/17/2017	12:14	23.59	7/13/2017	10:01	72.51	
7/17/2017	12:10	12.23	7/19/2017	11:47	23.43	7/17/2017	14:41	73.25	
7/19/2017	11:56	12.81	7/21/2017	12:57	22.78	7/19/2017	13:09	76.17	
7/21/2017	11:46	11.46	7/24/2017	14:08	23.54	7/21/2017	11:41	74.03	
7/24/2017	14:20	13.01	7/26/2017	11:50	23.33	7/24/2017	11:46	75.83	
7/26/2017	11:42	12.39	7/27/2017	12:18	22.59	7/26/2017	9:19	75.05	
7/27/2017	12:09	11.06	7/28/2017	14:57	23.78	7/27/2017	9:05	75.86	
7/28/2017	14:43	13.25	8/3/2017	11:40	24.07	7/28/2017	12:15	75.76	
8/3/2017	11:44	13.65				8/3/2017	10:38	77.40	
Villa	ge of Sou	ith Blooming Grove	Villa	ge of Sou	ith Blooming Grove	Villa	ge of So	uth Blooming Grove	
Mei	rriewold	Well Field Well 1	Me	rriewold	Well Field Well 3		Baseb	all Field Well	
7/14/2017	12:03	377.53 1/	7/14/2017	11:25	301.83 1/	7/14/2017	11:13	353.27 <u>1/</u>	
7/21/2017	12:30	402.51 ^{1/}	7/21/2017	12:10	$303.80^{1/}$	7/21/2017	11:56	345.05 ^{1/}	
7/24/2017	11:40	391.61 <u>^{1/}</u>	7/24/2017	11:32	448.42 ^{1/}	7/24/2017	11:20	347.59 ^{1/}	
7/26/2017	11:15	$360.03^{1/}$	7/26/2017	11:05	301.80 <u>1</u> ∕	7/26/2017	10:55	350.60 ^{1/}	
7/28/2017	14:55	294.29 ^{1/}	7/28/2017	14:55	354.91 ^{1/}	7/28/2017	14:35	351.92 ^{1/}	
8/4/2017	10:15	387.25	8/4/2017	10:25	299.10				

Manual Water-Level Measurements Collected from Offsite Monitoring Wells During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Depth to Water (ft btoc)	Date	Time	Depth to Water (ft btoc)	Date	Time	Depth to Water (ft btoc)
Village o	Village of South Blooming Grove Well 8		-					1
7/14/2017	10:42	267.90						
7/21/2017	11:45	267.20	-			-		-1
7/24/2017	11:10	267.00	-			-		-1
7/26/2017	10:40	267.15	1			-		1
7/28/2017	14:20	266.70	-			-		-
8/4/2017	9:45	266.15	-					-

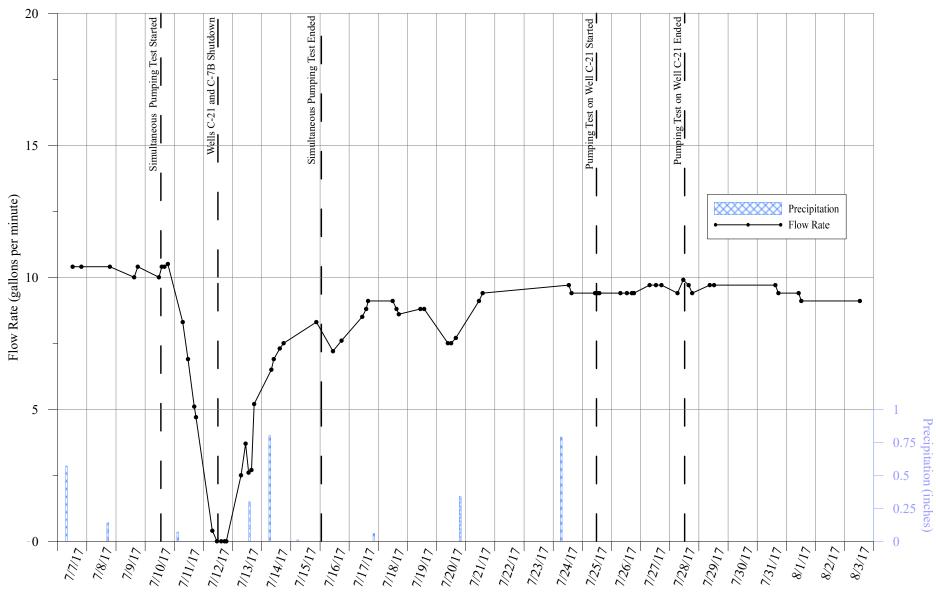
ft btoc feet below top of casing

1/ Water-level measurement collected using well sounder.

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SPRING ON ROUTE 208

Graph of Flow Rate Measurements Collected from the Spring on Route 208 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Flow Rate Measurements Collected from the Spring on Route 208 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Measured Rate (gallons per minute)
6/29/2017	13:00	10.4
7/3/2017	11:45	10.4
7/5/2017	12:00	10.7
7/6/2017	12:00	10.4
7/7/2017	12:20	10.4
7/7/2017	19:30	10.4
7/8/2017	19:00	10.4
7/9/2017	15:00	10.0
7/9/2017	18:00	10.4
7/10/2017	11:22	10.0
7/10/2017	13:44	10.4
7/10/2017	15:53	10.4
7/10/2017	18:46	10.5
7/11/2017	7:00	8.3
7/11/2017	11:20	6.9
7/11/2017	16:31	5.1
7/11/2017	17:55	4.7
7/12/2017	7:20	0.4
7/12/2017	11:13	0
7/12/2017	14:40	0
7/12/2017	17:27	0
7/12/2017	18:53	0
7/13/2017	6:58	2.5
7/13/2017	10:49	3.7
7/13/2017	13:13	2.6
7/13/2017	15:34	2.7
7/13/2017	17:50	5.2
7/14/2017	7:58	6.5
7/14/2017	9:56	6.9
7/14/2017	14:54	7.3
7/14/2017	18:05	7.5
7/15/2017	21:00	8.3
7/16/2017	10:42	7.2
7/16/2017	17:45	7.6
7/17/2017	10:48	8.5
7/17/2017	14:05	8.8
7/17/2017	15:41	9.1
7/18/2017	11:52	9.1
7/18/2017	15:01	8.8
7/18/2017	16:55	8.6
7/19/2017	10:43	8.8
7/19/2017	13:50	8.8
7/20/2017	9:19	7.5
7/20/2017	12:00	7.5
7/20/2017	15:55	7.7
7/21/2017	10:58	9.1
7/21/2017	13:55	9.4
7/24/2017	12:55	9.7
7/24/2017	15:10	9.4
7/25/2017	10:30	9.4
7/25/2017	12:38	9.4
7/25/2017	14:03	9.4
7/26/2017	7:24	9.4

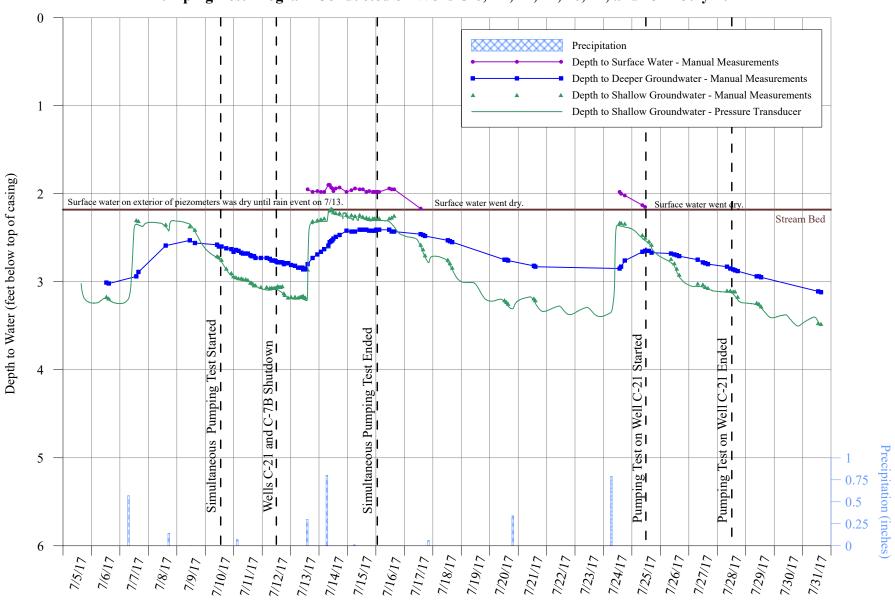
Flow Rate Measurements Collected from the Spring on Route 208 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Measured Rate (gallons per minute)
7/26/2017	12:46	9.4
7/26/2017	16:47	9.4
7/26/2017	18:30	9.4
7/27/2017	7:26	9.7
7/27/2017	12:40	9.7
7/27/2017	17:14	9.7
7/28/2017	6:25	9.4
7/28/2017	11:11	9.9
7/28/2017	15:33	9.7
7/28/2017	18:30	9.4
7/29/2017	9:00	9.7
7/29/2017	12:30	9.7
7/31/2017	15:00	9.7
7/31/2017	17:30	9.4
8/1/2017	10:13	9.4
8/1/2017	12:18	9.1
8/3/2017	12:30	9.1

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APPENDIX VIII

Hydrograph of Water-Level Measurements Collected from Piezometers at Location PZ-1 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



LBG Hydrogeologic & Engineering Services, P.C.

Manual Water-Level Measurements Collected from Piezometer Location PZ-1 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Shallow Screened Piezometer Depth to Water (ft btoc)	Deeper Screened Piezometer Depth to Water ^{1/} (ft btoc)	Exterior Depth to Surface Water (ft btoc)	Vertical Head (Shallow Groundwater- Deeper Groundwater)	Vertical Head Direction (Shallow Groundwater- Deeper Groundwater)	Vertical Head (Surface Water- Shallow Groundwater)	Vertical Head Direction (Surface Water- Shallow Groundwater)
					PZ-1			
7/6/2017	12:35	3.17	3.01	Dry	0.16	Upward	-	
7/6/2017	14:37	3.19	3.02	Dry	0.17	Upward	-	
7/7/2017	13:46	2.30	2.94	Dry	-0.64	Downward		
7/7/2017	15:38	2.31	2.89	Dry	-0.58	Downward		
7/8/2017	14:40	2.35	2.59	Dry	-0.24	Downward		
7/9/2017	11:00	2.37	2.53	Dry	-0.16	Downward		
7/9/2017	15:20	2.41	2.56	Dry	-0.15	Downward		
7/10/2017	10:00	2.71	2.58	Dry	0.13	Upward		
7/10/2017	11:27	2.72	2.60	Dry	0.12	Upward		
7/10/2017	13:48	2.75	2.60	Dry	0.15	Upward		
7/10/2017	17:47	2.85	2.62	Dry	0.23	Upward		
7/10/2017	21:58	2.90	2.63	Dry	0.27	Upward		
7/10/2017	23:58	2.94	2.66	Dry	0.28	Upward		
7/11/2017	1:57	2.95	2.64	Dry	0.31	Upward		
7/11/2017	4:05	2.96	2.65	Dry	0.31	Upward		
7/11/2017	6:27	2.96	2.67	Dry	0.29	Upward		
7/11/2017	7:50 10:09	2.97 2.97	2.68 2.68	Dry	0.29 0.29	Upward Upward		
7/11/2017 7/11/2017	12:00	2.97	2.68	Dry Dry	0.29	Upward		
7/11/2017	14:05	3.01	2.70	Dry	0.30	Upward		
7/11/2017	15:00	3.01	2.70	Dry	0.30	Upward		
7/11/2017	16:02	3.02	2.71	Dry	0.31	Upward		
7/11/2017	17:11	3.04	2.71	Dry	0.33	Upward		
7/11/2017	18:25	3.04	2.73	Dry	0.31	Upward		
7/11/2017	23:01	3.06	2.73	Dry	0.33	Upward		
7/12/2017	3:51	3.06	2.73	Dry	0.33	Upward		
7/12/2017	6:30	3.07	2.74	Dry	0.33	Upward		
7/12/2017	7:58	3.07	2.76	Dry	0.31	Upward		
7/12/2017	9:16	3.07	2.76	Dry	0.31	Upward		
7/12/2017	10:46	3.07	2.76	Dry	0.31	Upward		
7/12/2017	11:45	3.07	2.77	Dry	0.30	Upward		
7/12/2017	13:02	3.05	2.78	Dry	0.27	Upward		
7/12/2017	13:55	3.06	2.78	Dry	0.28	Upward		
7/12/2017	14:32	3.06	2.78	Dry	0.28	Upward		
7/12/2017	15:40	3.06	2.78	Dry	0.28	Upward		
7/12/2017	17:00	3.05	2.78	Dry	0.27	Upward		
7/12/2017	18:21	3.13	2.80	Dry	0.33	Upward	-	
7/12/2017	19:07	3.15	2.79	Dry	0.36	Upward	-	
7/12/2017	21:53	3.18	2.79	Dry	0.39	Upward		
7/13/2017	0:27	3.17	2.81	Dry	0.36	Upward		
7/13/2017	3:47	3.17	2.82	Dry	0.35	Upward		
7/13/2017	6:20	3.18	2.84	Dry	0.34	Upward		
7/13/2017	8:10	3.17	2.84	Dry	0.33	Upward		
7/13/2017	9:11	3.17	2.84	Dry	0.33	Upward		
7/13/2017	9:55	3.17	2.84	Dry	0.33	Upward		
7/13/2017	10:41	3.16	2.86	Dry	0.30	Upward		
7/13/2017	11:30	3.18	2.85	Dry	0.33	Upward		
7/13/2017	12:25	3.18	2.86	Dry	0.32	Upward		
7/13/2017	14:25	2.86	2.80	1.95	0.06	Upward	-0.91	Downward
7/13/2017	18:38	2.31	2.73	1.98	-0.42	Downward	-0.33	Downward

Manual Water-Level Measurements Collected from Piezometer Location PZ-1 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

		Shallow	Deeper	Exterior	Vertical Head	Vertical Head	Vertical Head	Vertical Head
		Screened	Screened	Depth	(Shallow	Direction	(Surface	Direction
Date	Time	Piezometer	Piezometer	to	Groundwater-	(Shallow	Water-	(Surface
Date	Time	Depth to	Depth to	Surface	Deeper	Groundwater-	Shallow	Water-
		Water	Water ^{1/}	Water	Groundwater)	Deeper	Groundwater)	Shallow
		(ft btoc)	(ft btoc)	(ft btoc)	Groundwater)	Groundwater)	Groundwater)	Groundwater)
7/13/2017	22:33	2.30	2.69	1.97	-0.39	Downward	-0.33	Downward
7/14/2017	1:38	2.29	2.66	1.98	-0.37	Downward	-0.31	Downward
7/14/2017	4:26	2.28	2.63	1.98	-0.35	Downward	-0.30	Downward
7/14/2017	7:55	2.18	2.59	1.90	-0.41	Downward	-0.28	Downward
7/14/2017	9:02	2.19	2.55	1.90	-0.36	Downward	-0.29	Downward
7/14/2017	10:12	2.17	2.54	1.93	-0.37	Downward	-0.24	Downward
7/14/2017	11:12	2.18	2.53	1.94	-0.35	Downward	-0.24	Downward
7/14/2017	12:10	2.21	2.51	1.97	-0.30	Downward	-0.24	Downward
7/14/2017	14:10	2.22	2.49	1.94	-0.27	Downward	-0.28	Downward
7/14/2017	17:20	2.22	2.47	1.93	-0.25	Downward	-0.29	Downward
7/14/2017	23:12	2.24	2.42	1.98	-0.18	Downward	-0.26	Downward
7/15/2017	3:21	2.24	2.43	1.96	-0.19	Downward	-0.28	Downward
7/15/2017	6:22	2.25	2.43	1.94	-0.18	Downward	-0.31	Downward
7/15/2017	10:17	2.24	2.41	1.95	-0.17	Downward	-0.29	Downward
7/15/2017	12:58	2.26	2.41	1.95	-0.15	Downward	-0.31	Downward
7/15/2017	15:57	2.27	2.41	1.98	-0.14	Downward	-0.29	Downward
7/15/2017	18:20	2.28	2.42	1.97	-0.14	Downward	-0.31	Downward
7/15/2017	21:25	2.28	2.42	1.98	-0.14	Downward	-0.30	Downward
7/15/2017	22:50	2.28	2.42	1.98	-0.14	Downward	-0.30	Downward
7/16/2017	0:20	2.28	2.41	1.98	-0.13	Downward	-0.30	Downward
7/16/2017	2:43	2.28	2.41	1.98	-0.13	Downward	-0.30	Downward
7/16/2017	11:14	2.28	2.41	1.94	-0.13	Downward	-0.34	Downward
7/16/2017	13:15	2.27	2.43	1.95	-0.16	Downward	-0.32	Downward
7/16/2017	15:23	2.25 2.58	2.43	1.95 2.17	-0.18	Downward	-0.30	Downward
7/17/2017 7/17/2017	13:47 15:48	2.58	2.46 2.47	Dry	0.12 0.16	Upward Upward	-0.41	Downward
7/17/2017		2.70		Dry	0.16	1		
7/18/2017	17:34 12:38	2.75	2.48 2.53	Dry	0.22	Upward Upward		
7/18/2017	14:31	2.79	2.54	Dry	0.25	Upward		
7/18/2017	16:23	2.79	2.55	Dry	0.29	Upward		
7/20/2017	12:30	3.21	2.75	Dry	0.46	Upward		
7/20/2017	14:12	3.23	2.75	Dry	0.48	Upward		
7/20/2017	15:37	3.25	2.76	Dry	0.49	Upward		
7/21/2017	13:19	3.19	2.82	Dry	0.37	Upward		
7/21/2017	14:31	3.21	2.83	Dry	0.38	Upward		
7/24/2017	13:38	2.33	2.85	1.98	-0.52	Downward	1.98	Downward
7/24/2017	14:51	2.33	2.83	2.00	-0.50	Downward	2.00	Downward
7/24/2017	18:02	2.34	2.76	2.02	-0.42	Downward	2.02	Downward
7/25/2017	8:50	2.47	2.66	2.13	-0.19	Downward	2.13	Downward
7/25/2017	11:05	2.50	2.65	2.15	-0.15	Downward	2.15	Downward
7/25/2017	14:26	2.54	2.65	Dry	-0.11	Downward		
7/25/2017	16:38	2.58	2.67	Dry	-0.09	Downward		
7/26/2017	8:57	2.74	2.68	Dry	0.06	Upward		
7/26/2017	11:47	2.79	2.69	Dry	0.10	Upward		
7/26/2017	13:49	2.85	2.70	Dry	0.15	Upward		
7/26/2017	15:54	2.92	2.71	Dry	0.21	Upward		
7/27/2017	7:33	3.02	2.75	Dry	0.27	Upward		
	11:57	3.03	2.78	Dry	0.25	Upward		
7/27/2017								
7/27/2017 7/27/2017	13:59	3.06	2.79	Dry	0.27	Upward		
		3.06 3.07	2.79 2.80	Dry Dry	0.27 0.27	Upward Upward		

Manual Water-Level Measurements Collected from Piezometer Location PZ-1 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

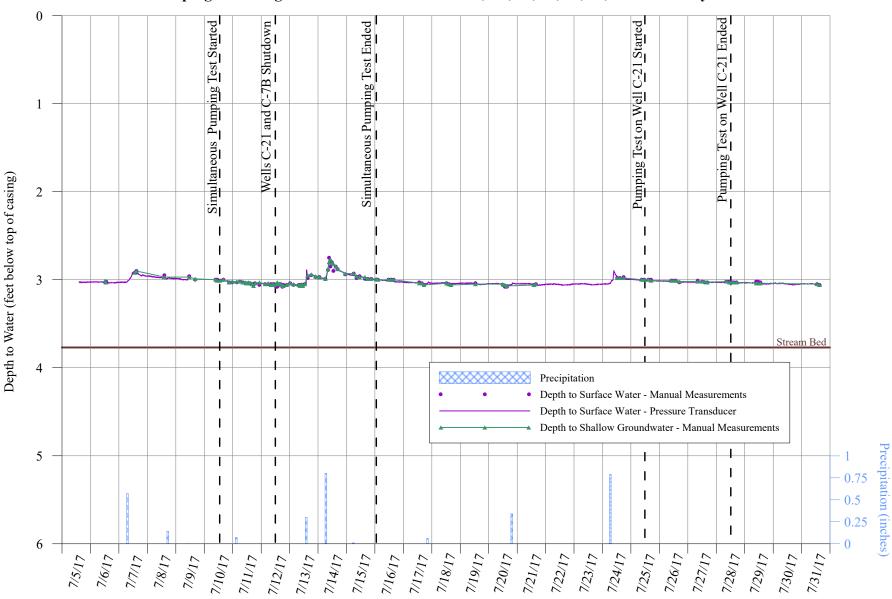
Date	Time	Shallow Screened Piezometer Depth to Water (ft btoc)	Deeper Screened Piezometer Depth to Water ^{1/} (ft btoc)	Exterior Depth to Surface Water (ft btoc)	Vertical Head (Shallow Groundwater- Deeper Groundwater)	Vertical Head Direction (Shallow Groundwater- Deeper Groundwater)	Vertical Head (Surface Water- Shallow Groundwater)	Vertical Head Direction (Surface Water- Shallow Groundwater)
7/28/2017	11:00	3.10	2.85	Dry	0.25	Upward		
7/28/2017	13:29	3.11	2.86	Dry	0.25	Upward		
7/28/2017	14:59	3.11	2.87	Dry	0.24	Upward	-	
7/28/2017	17:17	3.17	2.88	Dry	0.29	Upward	-	
7/29/2017	9:20	3.24	2.94	Dry	0.30	Upward	-	
7/29/2017	11:10	3.25	2.94	Dry	0.31	Upward	-	
7/29/2017	13:00	3.28	2.95	Dry	0.33	Upward		
7/31/2017	13:15	3.47	3.11	Dry	0.36	Upward		
7/31/2017	15:33	3.48	3.12	Dry	0.36	Upward		

ft btoc feet below top of casing

<u>1/</u> Water-level measurements for deeper screened piezometer have been corrected based on a difference in casing height of 1.58 feet between the shallow screened and deeper screened piezometers in order to conduct a comparison of vertical head changes.

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Hydrograph of Water-Level Measurements Collected from Piezometers at Location PZ-5 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



LBG Hydrogeologic & Engineering Services, P.C.

Manual Water-Level Measurements Collected from Piezometer Location PZ-5 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

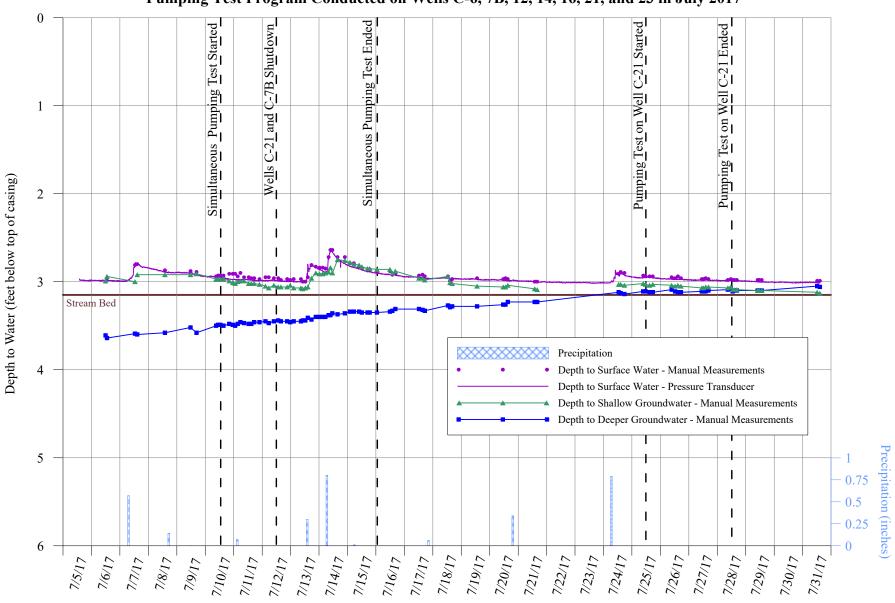
		Interior Piezometer Depth	Exterior Depth to	Vertical Head	Vertical Head Direction
Date	Time	to Groundwater	Surface Water	(Surface Water-Shallow	(Surface Water-
		(ft btoc)	(ft btoc)	Groundwater)	Shallow Groundwater)
			PZ-5		
7/6/2017	12:15	3.01	3.03	0.02	Upward
7/6/2017	13:10	3.03	3.02	-0.01	Downward
7/7/2017	13:18	2.92	2.92	0.00	Neutral
7/7/2017	14:45	2.90	2.90	0.00	Neutral
7/8/2017	14:20	2.97	2.95	-0.02	Downward
7/9/2017	11:20	2.97	2.96	-0.01	Downward
7/9/2017	16:20	2.99	3.00	0.01	Upward
7/10/2017	9:30	3.00	3.00	0.00	Neutral
7/10/2017	10:58	3.01	3.00	-0.01	Downward
7/10/2017	13:19	3.01	3.01	0.00	Neutral
7/10/2017	16:08	3.00	3.00	0.00	Neutral
7/10/2017 7/10/2017	20:58	3.03 3.02	3.03 3.03	0.00	Neutral
7/10/2017	3:34	3.02	3.03	0.01	Upward Upward
7/11/2017	6:09	3.02	3.03	0.00	Neutral
7/11/2017	8:29	3.03	3.03	0.00	Neutral
7/11/2017	10:31	3.03	3.04	0.00	Upward
7/11/2017	11:50	3.04	3.04	0.00	Neutral
7/11/2017	13:22	3.03	3.04	0.01	Upward
7/11/2017	14:27	3.04	3.04	0.00	Neutral
7/11/2017	15:24	3.04	3.05	0.01	Upward
7/11/2017	16:27	3.05	3.05	0.00	Neutral
7/11/2017	17:38	3.07	3.06	-0.01	Downward
7/11/2017	18:46	3.04	3.04	0.00	Neutral
7/11/2017	22:30	3.03	3.06	0.03	Upward
7/12/2017	3:25	3.05	3.05	0.00	Neutral
7/12/2017	6:01	3.04	3.05	0.01	Upward
7/12/2017	8:18	3.06	3.05	-0.01	Downward
7/12/2017	9:47	3.05	3.05	0.00	Neutral
7/12/2017	11:06	3.06	3.05	-0.01	Downward
7/12/2017	12:31	3.05	3.08	0.03	Upward
7/12/2017	13:34	3.03	3.08	0.05	Upward
7/12/2017 7/12/2017	14:15 15:18	3.04 3.05	3.07 3.05	0.03	Upward Neutral
7/12/2017	16:23	3.05	3.05	0.00	Neutral
7/12/2017	17:55	3.06	3.08	0.00	Upward
7/12/2017	18:49	3.07	3.06	-0.01	Downward
7/12/2017	21:36	3.06	3.06	0.00	Neutral
7/13/2017	0:25	3.04	3.04	0.00	Neutral
7/13/2017	3:20	3.05	3.06	0.01	Upward
7/13/2017	7:43	3.06	3.06	0.00	Neutral
7/13/2017	8:46	3.07	3.06	-0.01	Downward
7/13/2017	9:40	3.06	3.07	0.01	Upward
7/13/2017	10:23	3.05	3.06	0.01	Upward
7/13/2017	11:10	3.07	3.06	-0.01	Downward
7/13/2017	12:50	3.05	3.05	0.00	Neutral
7/13/2017	15:15	2.95	2.98	0.03	Upward
7/13/2017	18:15	2.94	2.95	0.01	Upward
7/13/2017	21:57	2.96	2.97	0.01	Upward
7/14/2017	1:12	2.97	2.97	0.00	Neutral
7/14/2017	1:03	2.97	2.97	0.00	Neutral
7/14/2017	6:09	2.99	2.99	0.00	Neutral
7/14/2017	8:27	2.88	2.89	0.01	Upward
7/14/2017	9:20	2.80	2.75	-0.05	Downward
7/14/2017	10:30	2.77	2.85	0.08	Upward
7/14/2017	11:35	2.81	2.80	-0.01	Downward

Manual Water-Level Measurements Collected from Piezometer Location PZ-5 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

		Interior Piezometer Depth	Exterior Depth to	Vertical Head	Vertical Head Direction
Date	Time	to Groundwater	Surface Water	(Surface Water-Shallow	(Surface Water-
		(ft btoc)	(ft btoc)	Groundwater)	Shallow Groundwater)
7/14/2017	12:58	2.82	2.90	0.08	Upward
7/14/2017	14:57	2.85	2.85	0.00	Neutral
7/14/2017	16:27	2.88	2.88	0.00	Neutral
7/14/2017	22:57	2.93	2.94	0.01	Upward
7/15/2017	6:08	2.93	2.93	0.00	Neutral
7/15/2017	8:29	2.96	2.98	0.02	Upward
7/15/2017	11:02	2.97	2.96	-0.01	Downward
7/15/2017	15:38	2.97	2.99	0.02	Upward
7/15/2017	17:55	2.99	2.99	0.00	Neutral
7/15/2017	20:55	2.99	2.99	0.00	Neutral
7/16/2017	1:00	2.99	3.00	0.01	Upward
7/16/2017	2:35	3.00	3.00	0.00	Neutral
7/16/2017	11:30	3.00	3.00	0.00	Neutral
7/16/2017	13:30	3.00	3.00	0.00	Neutral
7/16/2017	15:48	3.00	3.00	0.00	Neutral
7/17/2017	13:29	3.04	3.03	-0.01	Downward
7/17/2017	15:33	3.04	3.04	0.00	Neutral
7/17/2017	17:27	3.06	3.06	0.00	Neutral
7/18/2017	12:24	3.04	3.04	0.00	Neutral
7/18/2017	14:15	3.05	3.05	0.00	Neutral
7/18/2017	16:06	3.06	3.06	0.00	Neutral
7/19/2017	12:50	3.05	3.04	-0.01	Downward
7/20/2017	11:57	3.05	3.06	0.01	Upward
7/20/2017	13:39	3.06	3.08	0.02	Upward
7/20/2017	15:28	3.07	3.08	0.01	Upward
7/21/2017	14:08	3.06	3.06	0.00	Neutral
7/21/2017	15:56	3.05	3.05	0.00	Neutral
7/24/2017	12:25	2.98	2.98	0.00	Neutral
7/24/2017	14:43	2.98	2.98	0.00	Neutral
7/24/2017	17:53	2.98	2.97	-0.01	Downward
7/25/2017	9:07	3.00	3.00	0.00	Neutral
7/25/2017	11:15	3.00	3.00	0.00	Neutral
7/25/2017	14:46	3.00	3.00	0.00	Neutral
7/25/2017	16:55	3.01	3.00	-0.01	Downward
7/26/2017	10:03	3.01	3.01	0.00	Neutral
7/26/2017	11:59	3.01	3.01	0.00	Neutral
7/26/2017	13:56	3.01	3.01	0.00	Neutral
7/26/2017	16:56	3.02	3.03	0.01	Upward
7/27/2017	8:22	3.02	3.01	-0.01	Downward
7/27/2017	12:06	3.02	3.02	0.00	Neutral
7/27/2017	14:08	3.02	3.03	0.01	Upward
7/27/2017	16:28	3.03	3.03	0.00	Neutral
7/28/2017	8:30	3.02	3.02	0.00	Neutral
7/28/2017	11:10	3.03	3.02	-0.01	Downward
7/28/2017	13:21	3.03	3.03	0.00	Neutral
7/28/2017	14:43	3.03	3.03	0.00	Neutral
7/28/2017	17:06	3.03	3.03	0.00	Neutral
7/29/2017	9:45	3.04	3.02	-0.02	Downward
7/29/2017	11:10	3.04	3.02	-0.02	Downward
7/29/2017	13:10	3.04	3.03	-0.01	Downward
7/31/2017	13:02	3.05	3.05	0.00	Neutral
7/31/2017	15:14	3.06	3.06	0.00	Neutral

ft btoc feet below top of casing

Hydrograph of Water-Level Measurements Collected from Piezometers at Location PZ-6 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



LBG Hydrogeologic & Engineering Services, P.C.

Manual Water-Level Measurements Collected from Piezometer Location PZ-6 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	face (Surface Water-Shallow Groundwater) 1 Upward 12 Upward 19 Downward 10 Downward
Date Time Plezometer Depth to Water (ft btoc) Occupant	rer- low water) Plant Shallow Groundwater) Plant Upward
Depth to Water (ft btoc) Water Water (ft btoc) Water Water (ft btoc) Deeper Groundwater) Shall Ground O.0	Water- Shallow Groundwater Groundwate
Water (ft btoc) Water (ft btoc) Water (ft btoc) Groundwater) Deeper Groundwater) Groundwater) 7/6/2017 11:51 2.99 3.61 3.00 -0.62 Downward 0.0 7/6/2017 13:05 2.94 3.64 2.96 -0.70 Downward 0.0 7/7/2017 12:46 3.00 3.59 2.81 -0.59 Downward -0.1 7/8/2017 14:36 2.92 3.60 2.80 -0.68 Downward -0.1 7/9/2017 14:30 2.92 3.58 2.87 -0.66 Downward -0.0 7/9/2017 11:35 2.92 3.52 2.88 -0.60 Downward -0.0 7/9/2017 16:40 2.91 3.58 2.89 -0.67 Downward -0.0 7/10/2017 9:10 2.97 3.50 2.94 -0.53 Downward -0.0 7/10/2017 10:48 2.97 3.49 2.93 -0.52 Downward -0.0<	Shallow Groundwater
(It bloc) (It bloc) Groundwater) PZ-6 7/6/2017 11:51 2.99 3.61 3.00 -0.62 Downward 0.0 7/6/2017 13:05 2.94 3.64 2.96 -0.70 Downward 0.0 7/7/2017 12:46 3.00 3.59 2.81 -0.59 Downward -0.1 7/7/2017 14:36 2.92 3.60 2.80 -0.68 Downward -0.1 7/8/2017 14:00 2.92 3.58 2.87 -0.66 Downward -0.0 7/9/2017 11:35 2.92 3.52 2.88 -0.60 Downward -0.0 7/9/2017 16:40 2.91 3.58 2.89 -0.67 Downward -0.0 7/10/2017 9:10 2.97 3.50 2.94 -0.53 Downward -0.0 7/10/2017 10:48 2.97 3.49 2.93 -0.52 Downward -0.0 7/10/2017 12:52 2.97 3.49 2.93 -0.52 Downward -0.0 7/10/2017 12:52 2.97 3.49 2.93 -0.52 Downward -0.0	11
7/6/2017 11:51 2.99 3.61 3.00 -0.62 Downward 0.0 7/6/2017 13:05 2.94 3.64 2.96 -0.70 Downward 0.0 7/7/2017 12:46 3.00 3.59 2.81 -0.59 Downward -0.1 7/7/2017 14:36 2.92 3.60 2.80 -0.68 Downward -0.1 7/8/2017 14:00 2.92 3.58 2.87 -0.66 Downward -0.6 7/9/2017 11:35 2.92 3.52 2.88 -0.60 Downward -0.6 7/9/2017 16:40 2.91 3.58 2.89 -0.67 Downward -0.6 7/10/2017 9:10 2.97 3.50 2.94 -0.53 Downward -0.6 7/10/2017 10:48 2.97 3.49 2.93 -0.52 Downward -0.6 7/10/2017 12:52 2.97 3.49 2.93 -0.52 Downward -0.6	D2 Upward 19 Downward 12 Downward 05 Downward 04 Downward 02 Downward 03 Downward
7/6/2017 13:05 2.94 3.64 2.96 -0.70 Downward 0.0 7/7/2017 12:46 3.00 3.59 2.81 -0.59 Downward -0.1 7/7/2017 14:36 2.92 3.60 2.80 -0.68 Downward -0.1 7/8/2017 14:00 2.92 3.58 2.87 -0.66 Downward -0.6 7/9/2017 11:35 2.92 3.52 2.88 -0.60 Downward -0.6 7/9/2017 16:40 2.91 3.58 2.89 -0.67 Downward -0.6 7/10/2017 9:10 2.97 3.50 2.94 -0.53 Downward -0.6 7/10/2017 10:48 2.97 3.49 2.93 -0.52 Downward -0.6 7/10/2017 12:52 2.97 3.49 2.93 -0.52 Downward -0.6	Description Description 19 Downward 12 Downward 05 Downward 04 Downward 02 Downward 03 Downward
7/7/2017 12:46 3.00 3.59 2.81 -0.59 Downward -0.1 7/7/2017 14:36 2.92 3.60 2.80 -0.68 Downward -0.1 7/8/2017 14:00 2.92 3.58 2.87 -0.66 Downward -0.6 7/9/2017 11:35 2.92 3.52 2.88 -0.60 Downward -0.6 7/9/2017 16:40 2.91 3.58 2.89 -0.67 Downward -0.6 7/10/2017 9:10 2.97 3.50 2.94 -0.53 Downward -0.6 7/10/2017 10:48 2.97 3.49 2.93 -0.52 Downward -0.6 7/10/2017 12:52 2.97 3.49 2.93 -0.52 Downward -0.6	19 Downward 12 Downward 05 Downward 04 Downward 02 Downward 03 Downward
7/7/2017 14:36 2.92 3.60 2.80 -0.68 Downward -0.1 7/8/2017 14:00 2.92 3.58 2.87 -0.66 Downward -0.6 7/9/2017 11:35 2.92 3.52 2.88 -0.60 Downward -0.6 7/9/2017 16:40 2.91 3.58 2.89 -0.67 Downward -0.6 7/10/2017 9:10 2.97 3.50 2.94 -0.53 Downward -0.6 7/10/2017 10:48 2.97 3.49 2.93 -0.52 Downward -0.6 7/10/2017 12:52 2.97 3.49 2.93 -0.52 Downward -0.6	Downward Downward Downward Downward Downward Downward Downward
7/8/2017 14:00 2.92 3.58 2.87 -0.66 Downward -0.0 7/9/2017 11:35 2.92 3.52 2.88 -0.60 Downward -0.0 7/9/2017 16:40 2.91 3.58 2.89 -0.67 Downward -0.0 7/10/2017 9:10 2.97 3.50 2.94 -0.53 Downward -0.0 7/10/2017 10:48 2.97 3.49 2.93 -0.52 Downward -0.0 7/10/2017 12:52 2.97 3.49 2.93 -0.52 Downward -0.0	Downward Downward D4 Downward D2 Downward D3 Downward
7/9/2017 11:35 2.92 3.52 2.88 -0.60 Downward -0.0 7/9/2017 16:40 2.91 3.58 2.89 -0.67 Downward -0.0 7/10/2017 9:10 2.97 3.50 2.94 -0.53 Downward -0.0 7/10/2017 10:48 2.97 3.49 2.93 -0.52 Downward -0.0 7/10/2017 12:52 2.97 3.49 2.93 -0.52 Downward -0.0	D4 Downward D2 Downward D3 Downward
7/9/2017 16:40 2.91 3.58 2.89 -0.67 Downward -0.0 7/10/2017 9:10 2.97 3.50 2.94 -0.53 Downward -0.0 7/10/2017 10:48 2.97 3.49 2.93 -0.52 Downward -0.0 7/10/2017 12:52 2.97 3.49 2.93 -0.52 Downward -0.0	Downward Downward
7/10/2017 9:10 2.97 3.50 2.94 -0.53 Downward -0.0 7/10/2017 10:48 2.97 3.49 2.93 -0.52 Downward -0.0 7/10/2017 12:52 2.97 3.49 2.93 -0.52 Downward -0.0 -0.0 -0.0 -0.0 -0.0 -0.0 -0.0 -0.0	Downward
7/10/2017 10:48 2.97 3.49 2.93 -0.52 Downward -0.0 7/10/2017 12:52 2.97 3.49 2.93 -0.52 Downward -0.0	
7/10/2017 12:52 2.97 3.49 2.93 -0.52 Downward -0.0	14 Downward I
//10/2017 13:28 2.97 3.50 2.93 -0.53 Downward -0.0	
7/10/2017 23:14 3.01 3.49 2.91 -0.48 Downward -0.1	
7/11/2017 1:13 3.02 3.50 2.91 -0.48 Downward -0.1	
7/11/2017 3:24 3.00 3.48 2.94 -0.48 Downward -0.0 7/11/2017 5:39 2.99 3.46 2.90 -0.47 Downward -0.0	
7/11/2017 8:45 2.99 3.47 2.95 -0.48 Downward -0.0 7/11/2017 12:38 3.02 3.48 2.95 -0.46 Downward -0.0	
7/11/2017 14:56 3.02 3.48 2.96 -0.46 Downward -0.0 7/11/2017 17:22 3.02 3.46 2.96 -0.44 Downward -0.0	
7/11/2017 21:46 3.03 3.46 2.97 -0.43 Downward -0.0 7/12/2017 2:48 3.05 3.45 2.95 -0.40 Downward -0.1	
7/12/2017 2:48 3.03 3.43 2.93 -0.40 Downward -0.1 7/12/2017 5:35 3.07 3.47 2.95 -0.40 Downward -0.1	
7/12/2017 9:55 3.04 3.45 2.96 -0.41 Downward -0.0	
7/12/2017 13:35 3.06 3.44 2.96 -0.38 Downward -0.1	
7/12/2017 15:54 3.06 3.45 2.98 -0.39 Downward -0.0	
7/12/2017 15:54 5.00 5.45 2.98 -0.39 Downward -0.0	
7/12/2017 23:42 3.04 3.46 2.98 -0.42 Downward -0.0	
7/13/2017 2:39 3.07 3.45 2.97 -0.38 Downward -0.1	
7/13/2017 8:41 3.07 3.45 2.97 -0.38 Downward -0.1	
7/13/2017 10:13 3.08 3.44 3.00 -0.36 Downward -0.0	
7/13/2017 12:27 3.07 3.44 3.00 -0.37 Downward -0.0	
7/13/2017 14:35 3.06 3.41 2.95 -0.35 Downward -0.1	
7/13/2017 17:40 2.96 3.43 2.81 -0.47 Downward -0.1	
7/13/2017 21:16 2.90 3.40 2.83 -0.50 Downward -0.0	
7/14/2017 0:26 2.91 3.40 2.84 -0.49 Downward -0.0	
7/14/2017 3:08 2.91 3.40 2.84 -0.49 Downward -0.0	
7/14/2017 5:21 2.90 3.40 2.85 -0.50 Downward -0.0	
7/14/2017 8:10 2.89 3.38 2.72 -0.49 Downward -0.1	
7/14/2017 9:40 2.84 3.38 2.64 -0.54 Downward -0.2	
7/14/2017 11:15 2.90 3.36 2.64 -0.46 Downward -0.2	
7/14/2017 15:39 2.75 3.37 2.72 -0.62 Downward -0.0	
7/14/2017 21:50 2.76 3.36 2.72 -0.60 Downward -0.0	
7/15/2017 2:07 2.78 3.34 2.79 -0.56 Downward 0.0	
7/15/2017 5:28 2.80 3.34 2.79 -0.54 Downward -0.0	
7/15/2017 9:50 2.81 3.34 2.84 -0.53 Downward 0.0	
7/15/2017 12:10 2.83 3.35 2.85 -0.52 Downward 0.0	
7/15/2017 16:55 2.85 3.35 2.86 -0.50 Downward 0.0	-
7/15/2017 18:50 2.85 3.35 2.87 -0.50 Downward 0.0	,
7/16/2017 0:50 2.86 3.35 2.88 -0.49 Downward 0.0	•

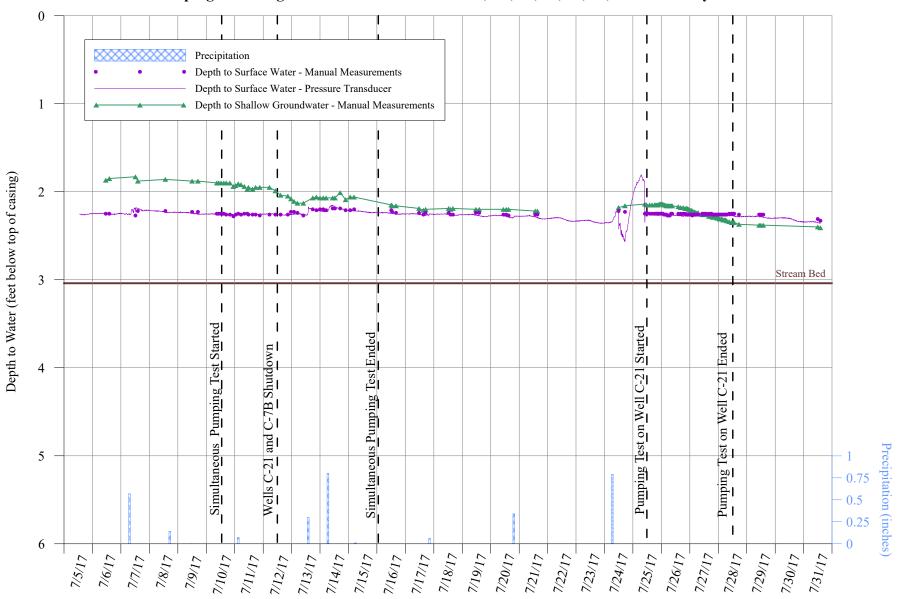
Manual Water-Level Measurements Collected from Piezometer Location PZ-6 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Shallow Screened Piezometer Depth to Water (ft btoc)	Deeper Screened Piezometer Depth to Water ^{1/} (ft btoc)	Exterior Depth to Surface Water (ft btoc)	Vertical Head (Shallow Groundwater- Deeper Groundwater)	Vertical Head Direction (Shallow Groundwater- Deeper Groundwater)	Vertical Head (Surface Water- Shallow Groundwater)	Vertical Head Direction (Surface Water- Shallow Groundwater)
7/16/2017	11:54	2.86	3.34	2.88	-0.48	Downward	0.02	Upward
7/16/2017	13:53	2.90	3.33	2.92	-0.43	Downward	0.02	Upward
7/16/2017	16:24	2.88	3.31	2.91	-0.43	Downward	0.03	Upward
7/17/2017	12:22	2.96	3.31	2.93	-0.35	Downward	-0.03	Downward
7/17/2017	15:23	2.96	3.32	2.92	-0.36	Downward	-0.04	Downward
7/17/2017	17:14	2.98	3.33	2.94	-0.35	Downward	-0.04	Downward
7/18/2017	12:48	2.94	3.27	2.94	-0.33	Downward	0.00	Upward
7/18/2017	14:37	3.01	3.29	2.99	-0.28	Downward	-0.02	Downward
7/18/2017	16:23	3.02	3.28	2.97	-0.26	Downward	-0.05	Downward
7/19/2017	13:20	3.05	3.28	2.96	-0.23	Downward	-0.09	Downward
7/20/2017	11:28	3.06	3.26	2.97	-0.20	Downward	-0.09	Downward
7/20/2017	13:20	3.06	3.26	2.96	-0.20	Downward	-0.10	Downward
7/20/2017	15:15	3.04	3.23	2.97	-0.19	Downward	-0.07	Downward
7/21/2017	13:55	3.08	3.23	3.00	-0.15	Downward	-0.08	Downward
7/21/2017	16:08	3.09	3.23	3.00	-0.14	Downward	-0.09	Downward
7/24/2017	12:51	3.03	3.12	2.91	-0.09	Downward	-0.12	Downward
7/24/2017	14:30	3.03	3.13	2.89	-0.10	Downward	-0.14	Downward
7/24/2017	17:39	3.04	3.14	2.90	-0.10	Downward	-0.14	Downward
7/25/2017	9:36	3.02	3.11	2.93	-0.09	Downward	-0.09	Downward
7/25/2017	11:31	3.03	3.11	2.94	-0.08	Downward	-0.09	Downward
7/25/2017	14:57	3.04	3.12	2.94	-0.08	Downward	-0.10	Downward
7/25/2017	17:36	3.03	3.12	2.94	-0.09	Downward	-0.09	Downward
7/26/2017	9:31	3.04	3.09	2.95	-0.05	Downward	-0.09	Downward
7/26/2017	12:25	3.05	3.11	2.96	-0.06	Downward	-0.09	Downward
7/26/2017	14:50	3.04	3.12	2.94	-0.08	Downward	-0.10	Downward
7/26/2017	17:24	3.05	3.12	2.96	-0.07	Downward	-0.09	Downward
7/27/2017	11:00	3.07	3.11	2.97	-0.04	Downward	-0.10	Downward
7/27/2017	12:15	3.07	3.11	2.97	-0.04	Downward	-0.10	Downward
7/27/2017	14:14	3.06	3.11	2.96	-0.05	Downward	-0.10	Downward
7/27/2017	16:35	3.06	3.10	2.97	-0.04	Downward	-0.09	Downward
7/28/2017	8:56	3.07	3.09	2.98	-0.02	Downward	-0.09	Downward
7/28/2017	11:31	3.06	3.08	2.97	-0.02	Downward	-0.09	Downward
7/28/2017	13:05	3.09	3.11	2.98	-0.02	Downward	-0.11	Downward
7/28/2017	14:24	3.09	3.10	2.98	-0.01	Downward	-0.11	Downward
7/28/2017	16:34	3.09	3.10	2.98	-0.01	Downward	-0.11	Downward
7/29/2017	10:05	3.10	3.10	2.98	0.00	Neutral	-0.12	Downward
7/29/2017	11:30	3.10	3.10	2.98	0.00	Neutral	-0.12	Downward
7/29/2017	13:30	3.10	3.10	2.98	0.00	Neutral	-0.12	Downward
7/31/2017	12:18	3.12	3.05	2.99	0.07	Upward	-0.13	Downward
7/31/2017	14:35	3.13	3.06	2.99	0.07	Upward	-0.14	Downward

ft btoc feet below top of casing

<u>1/</u> Water-level measurements for deeper screened piezometer have been corrected based on a difference in casing height of 1.20 feet between the shallow screened and deeper screened piezometers in order to conduct a comparison of vertical head changes.

Hydrograph of Water-Level Measurements Collected from Piezometers at Location PZ-8 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



LBG Hydrogeologic & Engineering Services, P.C.

Manual Water-Level Measurements Collected from Piezometer Location PZ-8 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

		Interior Piezometer Depth	Exterior Depth to	Vertical Head	Vertical Head Direction
Date	Time	to Groundwater	Surface Water	(Surface Water-Shallow	(Surface Water-
		(ft btoc)	(ft btoc)	Groundwater)	Shallow Groundwater)
			PZ-8		
7/6/2017	11:14	1.87	2.25	0.38	Upward
7/6/2017	14:12	1.85	2.25	0.40	Upward
7/7/2017	12:15	1.83	2.27	0.44	Upward
7/7/2017	14:19	1.88	2.22	0.34	Upward
7/8/2017	13:31	1.86	2.22	0.36	Upward
7/9/2017	12:05	1.88	2.23	0.35	Upward
7/9/2017	17:01	1.88	2.23	0.35	Upward
7/10/2017	8:57	1.90	2.25	0.35	Upward
7/10/2017	10:36	1.90	2.25	0.35	Upward
7/10/2017	12:33	1.90	2.25	0.35	Upward
7/10/2017	14:48	1.90	2.25	0.35	Upward
7/10/2017	16:50	1.90	2.26	0.36	Upward
7/10/2017	19:56	1.90	2.26	0.36	Upward
7/10/2017	22:52	1.94	2.28	0.34	Upward
7/11/2017	0:48	1.93	2.26	0.33	Upward
7/11/2017	3:02	1.91	2.25	0.34	Upward
7/11/2017	5:22	1.92	2.26	0.34	Upward
7/11/2017	8:05	1.94	2.25	0.31	Upward
7/11/2017	10:43	1.97	2.25	0.28	Upward
7/11/2017	11:41	1.95	2.26	0.31	Upward
7/11/2017	15:04	1.97	2.26	0.29	Upward
7/11/2017	17:39	1.95	2.26	0.31	Upward
7/11/2017	21:09	1.95	2.27	0.32	Upward
7/12/2017	5:18	1.95	2.26	0.31	Upward
7/12/2017	10:23	1.99	2.26	0.27	Upward
7/12/2017	14:45	2.04	2.26	0.22	Upward
7/12/2017	20:54	2.05	2.26	0.21	Upward
7/12/2017	23:27	2.08	2.23	0.15	Upward
7/13/2017	2:05	2.11	2.23	0.12	Upward
7/13/2017	4:59	2.13	2.24	0.11	Upward
7/13/2017	9:57	2.13	2.27	0.14	Upward
7/13/2017	17:54	2.07	2.20	0.13	Upward
7/13/2017	20:56	2.06	2.21	0.15	Upward
7/14/2017	0:01	2.07	2.20	0.13	Upward
7/14/2017	2:43	2.07	2.20	0.13	Upward
7/14/2017	5:10	2.07	2.21	0.14	Upward
7/14/2017	10:45	2.07	2.19	0.12	Upward
7/14/2017	12:35	2.07	2.19	0.12	Upward
7/14/2017	17:00	2.01	2.19	0.18	Upward
7/14/2017	21:35	2.09	2.21	0.12	Upward
7/15/2017	1:30	2.06	2.21	0.15	Upward
7/15/2017	4:45	2.06	2.20	0.14	Upward
7/16/2017	12:07	2.15	2.21	0.06	Upward
7/16/2017	12:50	2.16	2.23	0.07	Upward
7/16/2017	16:04	2.16	2.24	0.08	Upward
7/17/2017	11:30	2.19	2.24	0.05	Upward
7/17/2017	15:15	2.21	2.26	0.05	Upward
7/17/2017	17:08	2.20	2.24	0.04	Upward
7/18/2017	12:32	2.19	2.24	0.05	Upward
7/18/2017	14:11	2.20	2.26	0.06	Upward
7/18/2017	16:15	2.19	2.26	0.07	Upward
7/19/2017	11:30	2.20	2.24	0.04	Upward
7/19/2017	14:20	2.20	2.24	0.04	Upward

Manual Water-Level Measurements Collected from Piezometer Location PZ-8 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

ъ.	TO:	Interior Piezometer Depth	Exterior Depth to	Vertical Head	Vertical Head Direction
Date	Time	to Groundwater (ft btoc)	Surface Water (ft btoc)	(Surface Water-Shallow Groundwater)	(Surface Water- Shallow Groundwater)
7/20/2017	10.42	\ /		0.06	
7/20/2017 7/20/2017	10:43 13:10	2.20 2.20	2.26 2.26	0.06	Upward Upward
7/20/2017	15:07	2.20	2.27	0.07	Upward
7/21/2017	13:37	2.22	2.26	0.04	Upward
7/21/2017	15:31	2.22	2.26	0.04	Upward
7/24/2017	11:57	2.18	2.22	0.04	Upward
7/24/2017	17:18	2.16	2.23	0.07	Upward
7/25/2017	10:06	2.14	2.25	0.11	Upward
7/25/2017	11:40	2.15	2.24	0.09	Upward
7/25/2017	14:10	2.15	2.25	0.10	Upward
7/25/2017	16:10	2.15	2.25	0.10	Upward
7/25/2017	18:10	2.15	2.25	0.10	Upward
7/25/2017	19:10	2.15	2.25	0.10	Upward
7/25/2017	20:10	2.15	2.25	0.10	Upward
7/25/2017	21:10	2.15	2.25	0.10	Upward
7/25/2017	22:10	2.14	2.25	0.11	Upward
7/25/2017	23:10	2.14	2.25	0.11	Upward
7/26/2017	0:10	2.14	2.25	0.11	Upward
7/26/2017	1:10	2.14	2.25	0.11	Upward
7/26/2017	2:10	2.15	2.26	0.11	Upward
7/26/2017	3:10	2.15	2.26	0.11	Upward
7/26/2017	4:10	2.16	2.26	0.10	Upward
7/26/2017	5:10	2.16	2.27	0.11	Upward
7/26/2017	6:10	2.16	2.27	0.11	Upward
7/26/2017	7:10	2.16	2.27	0.11	Upward
7/26/2017	9:10	2.16	2.25	0.09	Upward
7/26/2017	12:10	2.16	2.25	0.09	Upward
7/26/2017	14:20	2.17	2.25	0.08	Upward
7/26/2017	16:20	2.18 2.18	2.25 2.25	0.07	Upward
7/26/2017 7/26/2017	18:20 20:10	2.18	2.25	0.07 0.06	Upward Upward
7/26/2017	21:10	2.19	2.26	0.07	Upward
7/26/2017	22:10	2.19	2.26	0.07	Upward
7/26/2017	23:10	2.19	2.26	0.06	Upward
7/27/2017	0:10	2.21	2.26	0.05	Upward
7/27/2017	1:10	2.21	2.26	0.05	Upward
7/27/2017	2:10	2.22	2.27	0.05	Upward
7/27/2017	3:10	2.23	2.26	0.03	Upward
7/27/2017	4:10	2.23	2.26	0.03	Upward
7/27/2017	5:10	2.24	2.26	0.02	Upward
7/27/2017	6:10	2.24	2.26	0.02	Upward
7/27/2017	7:10	2.24	2.26	0.02	Upward
7/27/2017	10:30	2.26	2.25	-0.01	Downward
7/27/2017	12:10	2.26	2.25	-0.01	Downward
7/27/2017	13:50	2.26	2.25	-0.01	Downward
7/27/2017	16:10	2.28	2.25	-0.03	Downward
7/27/2017	18:10	2.28	2.25	-0.03	Downward
7/27/2017	19:10	2.29	2.26	-0.03	Downward
7/27/2017	20:10	2.29	2.26	-0.03	Downward
7/27/2017	21:10	2.29	2.26	-0.03	Downward
7/27/2017	22:10	2.29	2.26	-0.03	Downward
7/27/2017	23:10	2.30	2.26	-0.04	Downward
7/28/2017	0:10	2.30	2.26	-0.04	Downward
7/28/2017	1:10	2.31	2.26	-0.05	Downward

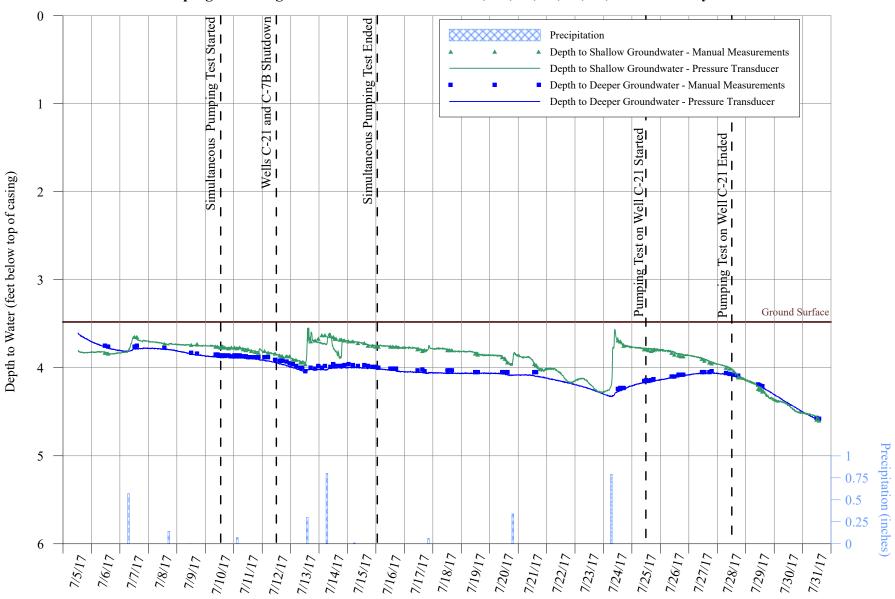
Manual Water-Level Measurements Collected from Piezometer Location PZ-8 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Interior Piezometer Depth to Groundwater (ft btoc)	Exterior Depth to Surface Water (ft btoc)	Vertical Head (Surface Water-Shallow Groundwater)	Vertical Head Direction (Surface Water- Shallow Groundwater)
7/28/2017	2:18	2.31	2.26	-0.05	Downward
7/28/2017	3:10	2.31	2.26	-0.05	Downward
7/28/2017	4:10	2.32	2.26	-0.06	Downward
7/28/2017	5:10	2.32	2.26	-0.06	Downward
7/28/2017	6:10	2.32	2.26	-0.06	Downward
7/28/2017	7:10	2.33	2.26	-0.07	Downward
7/28/2017	9:10	2.34	2.25	-0.09	Downward
7/28/2017	11:10	2.35	2.25	-0.10	Downward
7/28/2017	12:10	2.35	2.25	-0.10	Downward
7/28/2017	13:30	2.35	2.25	-0.10	Downward
7/28/2017	17:30	2.37	2.26	-0.11	Downward
7/29/2017	10:30	2.38	2.26	-0.12	Downward
7/29/2017	12:00	2.38	2.26	-0.12	Downward
7/29/2017	14:00	2.38	2.26	-0.12	Downward
7/31/2017	12:00	2.40	2.31	-0.09	Downward
7/31/2017	14:12	2.41	2.33	-0.08	Downward

ft btoc feet below top of casing

 $K:\label{loss} Lake\ Anne\ Clovewood\ 2017\ Report\ PZ-8.doc$

Hydrograph of Water-Level Measurements Collected from Piezometers at Location PZ-9 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



LBG Hydrogeologic & Engineering Services, P.C.

Manual Water-Level Measurements Collected from Piezometer Location PZ-9 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Shallow Screened Piezometer Depth to Water	Deeper Screened Piezometer Depth to Water ^{1/}	Exterior Depth to Surface Water	Vertical Head (Shallow Groundwater-Deeper	Vertical Head Direction (Shallow Groundwater- Deeper Groundwater)
		(ft btoc)	(ft btoc)	(ft btoc)	Groundwater)	Deeper Groundwater)
	<u> </u>	(20.000)	(20.000)	PZ-9		
7/6/2017	11:22	3.83	3.75	Dry	0.08	Upward
7/6/2017	14:03	3.84	3.76	Dry	0.08	Upward
7/7/2017	12:25	3.65	3.76	Dry	-0.11	Downward
7/7/2017	14:17	3.65	3.75	Dry	-0.10	Downward
7/8/2017	13:30	3.73	3.77	Dry	-0.04	Downward
7/9/2017	12:10	3.74	3.83	Dry	-0.09	Downward
7/9/2017	17:05	3.73	3.84	Dry	-0.11	Downward
7/10/2017	8:45	3.76	3.85	Dry	-0.09	Downward
7/10/2017	10:33	3.76	3.85	Dry	-0.09	Downward
7/10/2017	12:39	3.77	3.86	Dry	-0.09	Downward
7/10/2017	14:50	3.77	3.86	Dry	-0.09	Downward
7/10/2017	16:38	3.77	3.86	Dry	-0.09	Downward
7/10/2017	19:36	3.78	3.86	Dry	-0.08	Downward
7/10/2017	22:00	3.77	3.87	Dry	-0.10	Downward
7/11/2017	0:36	3.77	3.86	Dry	-0.09	Downward
7/11/2017	2:32	3.78	3.86	Dry	-0.08	Downward
7/11/2017	5:08	3.77	3.86	Dry	-0.09	Downward
7/11/2017	7:54	3.79	3.87	Dry	-0.08	Downward
7/11/2017	10:15	3.80	3.87	Dry	-0.07	Downward
7/11/2017	12:07	3.79	3.88 3.88	Dry	-0.09 -0.07	Downward
7/11/2017	14:54	3.81		Dry	-0.07	Downward
7/11/2017 7/11/2017	18:12 20:53	3.83	3.88 3.88	Dry	-0.06	Downward Downward
7/12/2017	2:00	3.81	3.88	Dry Dry	-0.03	Downward
7/12/2017	5:02	3.83	3.88	Dry	-0.07	Downward
7/12/2017	10:55	3.84	3.91	Dry	-0.03	Downward
7/12/2017	14:38	3.86	3.92	Dry	-0.06	Downward
7/12/2017	16:12	3.87	3.92	Dry	-0.05	Downward
7/12/2017	16:59	3.87	3.92	Dry	-0.05	Downward
7/12/2017	20:37	3.87	3.93	Dry	-0.06	Downward
7/12/2017	23:15	3.87	3.95	Dry	-0.08	Downward
7/13/2017	1:56	3.91	3.96	Dry	-0.05	Downward
7/13/2017	4:35	3.91	3.98	Dry	-0.07	Downward
7/13/2017	8:10	3.94	4.00	Dry	-0.06	Downward
7/13/2017	9:50	3.94	4.00	Dry	-0.06	Downward
7/13/2017	12:27	3.96	4.04	Dry	-0.08	Downward
7/13/2017	16:56	3.70	4.00	Dry	-0.30	Downward
7/13/2017	20:42	3.69	4.01	Dry	-0.32	Downward
7/13/2017	23:25	3.67	3.98	Dry	-0.31	Downward
7/14/2017	2:26	3.63	4.00	Dry	-0.37	Downward
7/14/2017	5:00	3.63	3.98	Dry	-0.35	Downward
7/14/2017	9:35	3.64	3.99	Dry	-0.35	Downward
7/14/2017	12:00	3.65	3.96	Dry	-0.31	Downward
7/14/2017	13:12	3.67	3.98	Dry	-0.31	Downward
7/14/2017	14:23	3.67	3.98	Dry	-0.31	Downward
7/14/2017	17:35	3.68	3.98	Dry	-0.30	Downward
7/14/2017	18:48	3.68	3.98	Dry	-0.30	Downward
7/14/2017	21:20	3.69	3.97	Dry	-0.28	Downward
7/15/2017	0:52	3.70	3.96	Dry	-0.26	Downward
7/15/2017	4:30	3.70	3.97	Dry	-0.27	Downward
7/15/2017	8:48	3.72	3.98	Dry	-0.26	Downward
7/15/2017	14:10	3.72	3.97	Dry	-0.25	Downward
7/15/2017	17:20	3.75	3.98	Dry	-0.23 -0.24	Downward
7/15/2017	21:00	3.75	3.99	Dry	-0.24	Downward

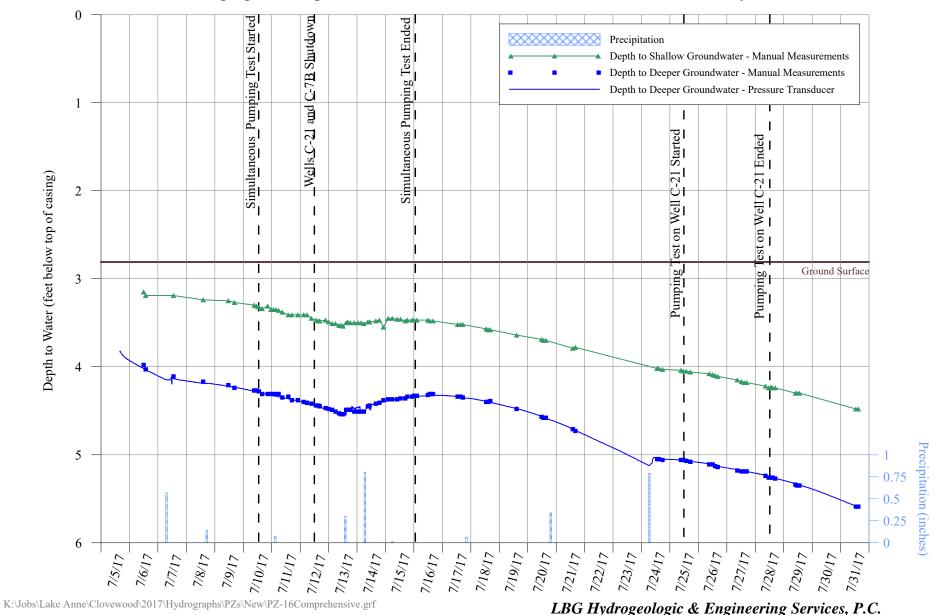
Manual Water-Level Measurements Collected from Piezometer Location PZ-9 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

7/15/2017	Date	Time	Shallow Screened Piezometer Depth to Water (ft btoc)	Deeper Screened Piezometer Depth to Water ^{1/2} (ft btoc)	Exterior Depth to Surface Water (ft btoc)	Vertical Head (Shallow Groundwater-Deeper Groundwater)	Vertical Head Direction (Shallow Groundwater- Deeper Groundwater)
7/16/2017 2:05 3.76 4.00 Dry -0.24 Downward 7/16/2017 12:13 3.76 4.01 Dry -0.25 Downward 7/16/2017 12:13 3.76 4.01 Dry -0.25 Downward 7/16/2017 17:00 3.76 4.01 Dry -0.25 Downward 7/16/2017 17:00 3.76 4.01 Dry -0.25 Downward 7/16/2017 11:10 3.79 4.03 Dry -0.24 Downward 7/17/2017 11:10 3.79 4.03 Dry -0.21 Downward 7/17/2017 17:01 3.80 4.04 Dry -0.21 Downward 7/18/2017 12:24 3.80 4.03 Dry -0.23 Downward 7/18/2017 12:24 3.80 4.03 Dry -0.23 Downward 7/18/2017 12:04 3.80 4.03 Dry -0.23 Downward 7/18/2017 16:07 3.80 4.03 Dry -0.23 Downward 7/18/2017 16:07 3.80 4.03 Dry -0.23 Downward 7/19/2017 11:50 3.84 4.05 Dry -0.21 Downward 7/19/2017 11:50 3.84 4.05 Dry -0.21 Downward 7/20/2017 10:34 3.88 4.05 Dry -0.20 Downward 7/20/2017 10:34 3.88 4.05 Dry -0.17 Downward 7/20/2017 10:00 3.90 4.05 Dry -0.15 Downward 7/20/2017 10:00 3.94 4.05 Dry -0.11 Downward 7/21/2017 10:00 3.94 4.05 Dry -0.11 Downward 7/21/2017 10:00 3.94 4.05 Dry -0.11 Downward 7/21/2017 10:00 3.97 4.05 Dry -0.08 Downward 7/21/2017 10:00 3.75 4.23 Dry -0.55 Downward 7/21/2017 10:10 3.69 4.24 Dry -0.55 Downward 7/21/2017 10:10 3.79 4.15 Dry -0.36 Downward 7/22/2017 10:17 3.79 4.15 Dry -0.35 Downward 7/22/2017 10:17 3.79 4.15 Dry -0.35 Downward 7/22/2017 10:15 3.80 4.14 Dry -0.35 Downward 7/22/2017 10:15 3.80 4.15 Dry -0.35 Downward 7/22/2017 10:15 3.81 4.14 Dry -0.35 Downward 7/22/2017 10:15 3.85 4.10 Dry -0.25 Downward 7/22/2017 10:10 3.87 4.08 Dry -0.21 Downward 7/22/2017 10:20 3.87 4.08 Dry -0.21 Downward 7/22/2017 10:20 3.87 4.08 Dry -0.21 Downward 7/22/2017 10:20 3.87 4.08 Dry	7/15/2017	23:45				-0.23	Downward
7/16/2017 12:13 3.76 4.01 Dry -0.25 Downward 7/16/2017 14:19 3.76 4.01 Dry -0.25 Downward 7/16/2017 14:19 3.76 4.01 Dry -0.25 Downward 7/16/2017 11:10 3.79 4.03 Dry -0.24 Downward 7/17/2017 11:10 3.79 4.03 Dry -0.24 Downward 7/17/2017 17:01 3.80 4.02 Dry -0.21 Downward 7/17/2017 17:01 3.80 4.04 Dry -0.24 Downward 7/18/2017 12:04 3.80 4.03 Dry -0.23 Downward 7/18/2017 14:06 3.80 4.03 Dry -0.23 Downward 7/18/2017 16:07 3.80 4.03 Dry -0.23 Downward 7/18/2017 16:07 3.80 4.03 Dry -0.23 Downward 7/19/2017 16:07 3.84 4.05 Dry -0.21 Downward 7/19/2017 16:03 3.84 4.05 Dry -0.21 Downward 7/20/2017 10:34 3.88 4.05 Dry -0.21 Downward 7/20/2017 13:00 3.90 4.05 Dry -0.17 Downward 7/20/2017 15:00 3.94 4.05 Dry -0.15 Downward 7/20/2017 15:00 3.94 4.05 Dry -0.15 Downward 7/21/2017 15:09 3.97 4.05 Dry -0.09 Downward 7/24/2017 12:10 3.69 4.24 Dry -0.55 Downward 7/24/2017 12:10 3.69 4.24 Dry -0.55 Downward 7/24/2017 12:10 3.79 4.15 Dry -0.36 Downward 7/25/2017 12:10 3.79 4.14 Dry -0.35 Downward 7/25/2017 13:50 3.80 4.15 Dry -0.35 Downward 7/25/2017 13:50 3.80 4.15 Dry -0.35 Downward 7/25/2017 13:50 3.80 4.11 Dry -0.35 Downward 7/25/2017 13:50 3.80 4.11 Dry -0.35 Downward 7/25/2017 13:50 3.80 4.11 Dry -0.35 Downward 7/25/2017 13:50 3.86 4.08 Dry -0.09 Downward 7/25/2017 13:50 3.86 4.08 Dry -0.27 Downward 7/25/2017 13:50 3.86 4.08 Dry -0.25 Downward 7/25/2017 13:50 3.86 4.08 Dry -0.25 Downward 7/25/2017 13:50 3.86 4.08 Dry -0.25 Downward 7/25/2017 13:00 3.99 4.05 Dry -0.21 Downward 7/26/2017 17:20 3.87 4.08 Dry -0.21 Downward 7/26/2017 17:20 3.87 4.08 Dry							
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7/27/2017 11:10 3.90 4.05 Dry -0.15 Downward 7/27/2017 13:10 3.92 4.05 Dry -0.13 Downward 7/27/2017 17:20 3.94 4.05 Dry -0.11 Downward 7/27/2017 19:20 3.95 4.04 Dry -0.09 Downward 7/28/2017 7:30 4.00 4.06 Dry -0.06 Downward 7/28/2017 10:30 4.01 4.07 Dry -0.06 Downward						-	
7/27/2017 13:10 3.92 4.05 Dry -0.13 Downward 7/27/2017 17:20 3.94 4.05 Dry -0.11 Downward 7/27/2017 19:20 3.95 4.04 Dry -0.09 Downward 7/28/2017 7:30 4.00 4.06 Dry -0.06 Downward 7/28/2017 10:30 4.01 4.07 Dry -0.06 Downward							
7/27/2017 17:20 3.94 4.05 Dry -0.11 Downward 7/27/2017 19:20 3.95 4.04 Dry -0.09 Downward 7/28/2017 7:30 4.00 4.06 Dry -0.06 Downward 7/28/2017 10:30 4.01 4.07 Dry -0.06 Downward							
7/27/2017 19:20 3.95 4.04 Dry -0.09 Downward 7/28/2017 7:30 4.00 4.06 Dry -0.06 Downward 7/28/2017 10:30 4.01 4.07 Dry -0.06 Downward							
7/28/2017 7:30 4.00 4.06 Dry -0.06 Downward 7/28/2017 10:30 4.01 4.07 Dry -0.06 Downward							
7/28/2017 10:30 4.01 4.07 Dry -0.06 Downward							
	7/28/2017	13:40	4.04	4.08	Dry	-0.04	Downward
7/28/2017 17:40 4.11 4.09 Dry 0.02 Upward			*** *			****	
7/29/2017 10:35 4.24 4.19 Dry 0.05 Upward							
7/29/2017 12:05 4.25 4.20 Dry 0.05 Upward				·			
7/29/2017 14:05 4.27 4.21 Dry 0.06 Upward				·			
7/31/2017 11:45 4.59 4.57 Dry 0.02 Upward							
7/31/2017 13:55 4.60 4.58 Dry 0.02 Upward							

ft btoc feet below top of casing

<u>1/</u> Water-level measurements for deeper screened piezometer have been corrected based on a difference in casing height of 2.16 feet between the shallow screened and deeper screened piezometers in order to conduct a comparison of vertical head changes.

Hydrograph of Water-Level Measurements Collected from Piezometers at Location PZ-16 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Manual Water-Level Measurements Collected from Piezometer Location PZ-16 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Data	Time	Shallow Screened	Deeper Screened Piezometer	Exterior Depth to	Vertical Head (Shallow	Vertical Head Direction
Date	Time	Piezometer Depth to Water (ft btoc)	Depth to Water ^{1/} (ft btoc)	Surface Water (ft btoc)	Groundwater-Deeper Groundwater)	(Shallow Groundwater- Deeper Groundwater)
		(It blue)	(It bloc)	PZ-16	<u> </u>	
7/6/2017	12:00	3.15	3.98	Dry	-0.83	Downward
7/6/2017	13:46	3.19	4.03	Dry	-0.84	Downward
7/7/2017	13:40	3.19	4.11	Dry	-0.92	Downward
7/8/2017	14:10	3.24	4.17	Dry	-0.92	Downward
7/9/2017	11:27	3.25	4.21	Dry	-0.96	Downward
7/9/2017	16:35	3.27	4.24	Dry	-0.97	Downward
7/10/2017	9:15	3.30	4.27	Dry	-0.97	Downward
7/10/2017	11:08	3.31	4.27	Dry	-0.96	Downward
7/10/2017	13:09	3.32	4.28	Dry	-0.96	Downward
7/10/2017	15:55	3.34	4.31	Dry	-0.97	Downward
7/10/2017	20:39	3.31	4.31	Dry	-1.00	Downward
7/10/2017	23:28	3.35	4.31	Dry	-0.96	Downward
7/11/2017	1:17	3.35	4.31	Dry	-0.96	Downward
7/11/2017	3:37	3.35	4.31	Dry	-0.96	Downward
7/11/2017	5:52	3.36	4.31	Dry	-0.95	Downward
7/11/2017	9:01	3.38	4.35	Dry	-0.97	Downward
7/11/2017	14:04	3.41	4.34	Dry	-0.93	Downward
7/11/2017	17:01	3.41	4.38	Dry	-0.97	Downward
7/11/2017	22:10	3.41	4.38	Dry	-0.97	Downward
7/12/2017	3:05	3.41	4.40	Dry	-0.99	Downward
7/12/2017	5:49	3.41	4.41	Dry	-1.00	Downward
7/12/2017	9:35	3.45	4.42	Dry	-0.97	Downward
7/12/2017	13:37	3.47	4.44	Dry	-0.97	Downward
7/12/2017	15:39	3.48	4.44	Dry	-0.96	Downward
7/12/2017	16:31	3.48	4.45	Dry	-0.97	Downward
7/12/2017	21:28	3.47	4.47	Dry	-1.00	Downward
7/13/2017	0:02	3.49	4.48	Dry	-0.99	Downward
7/13/2017	3:05	3.51	4.49	Dry	-0.98	Downward
7/13/2017	5:54	3.51	4.51	Dry	-1.00	Downward
7/13/2017	8:50	3.53	4.53	Dry	-1.00	Downward
7/13/2017	10:47	3.53	4.54	Dry	-1.01	Downward
7/13/2017	12:12	3.54	4.54	Dry	-1.00	Downward
7/13/2017	14:50	3.50	4.49	Dry	-0.99	Downward
7/13/2017	16:10	3.49	4.49	Dry	-1.00	Downward
7/13/2017	18:16	3.50	4.49	Dry	-0.99	Downward
7/13/2017	21:39	3.50	4.51	Dry	-1.01	Downward
7/14/2017	0:52	3.50	4.51	Dry	-1.01	Downward
7/14/2017	3:26	3.50	4.51	Dry	-1.01	Downward
7/14/2017	5:48	3.51	4.51	Dry	-1.00	Downward
7/14/2017	9:10	3.49	4.45	Dry	-0.96	Downward
7/14/2017	10:40	3.49	4.44	Dry	-0.95	Downward
7/14/2017	15:55	3.48	4.42	Dry	-0.94	Downward
7/14/2017	18:52	3.47	4.41	Dry	-0.94	Downward
7/14/2017	22:20	3.55	4.38	Dry	-0.83	Downward
7/15/2017	2:18	3.45	4.37	Dry	-0.92	Downward
7/15/2017	5:45	3.45	4.37	Dry	-0.92	Downward
7/15/2017	9:51	3.46	4.37	Dry	-0.91	Downward
7/15/2017	12:44	3.46	4.36	Dry	-0.90	Downward
7/15/2017	16:40	3.48	4.36	Dry	-0.88	Downward
7/15/2017	18:30	3.47	4.34	Dry	-0.87	Downward
7/15/2017	22:30	3.47	4.34	Dry	-0.87	Downward

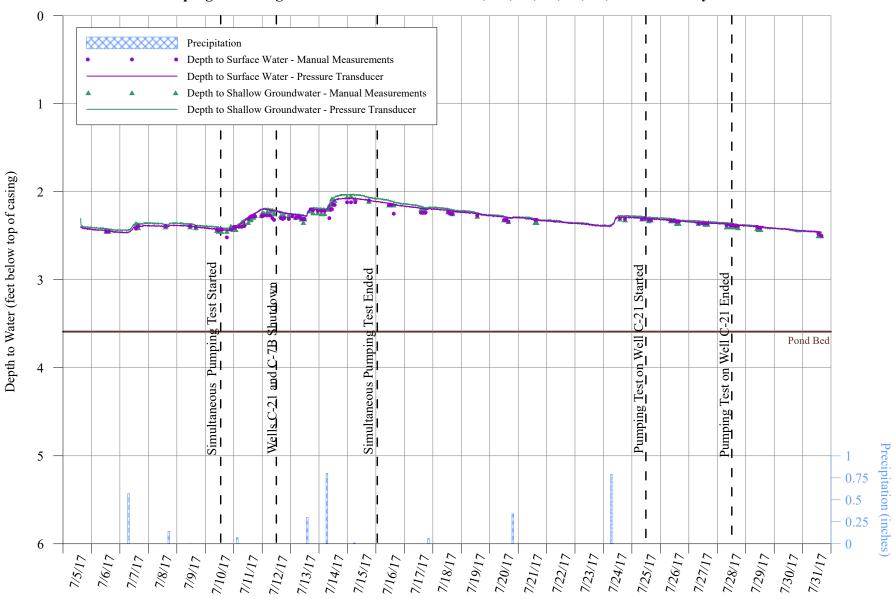
Manual Water-Level Measurements Collected from Piezometer Location PZ-16 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Shallow Screened Piezometer Depth to Water (ft btoc)	Deeper Screened Piczometer Depth to Water ^{1/2} (ft btoc)	Exterior Depth to Surface Water (ft btoc)	Vertical Head (Shallow Groundwater-Deeper Groundwater)	Vertical Head Direction (Shallow Groundwater- Deeper Groundwater)
7/16/2017	0:10	3.47	4.33	Dry	-0.86	Downward
7/16/2017	2:30	3.47	4.33	Dry	-0.86	Downward
7/16/2017	11:43	3.47	4.32	Dry	-0.85	Downward
7/16/2017	13:35	3.48	4.31	Dry	-0.83	Downward
7/16/2017	16:08	3.48	4.31	Dry	-0.83	Downward
7/17/2017	12:56	3.52	4.34	Dry	-0.82	Downward
7/17/2017	15:26	3.52	4.34	Dry	-0.82	Downward
7/17/2017	17:19	3.52	4.35	Dry	-0.83	Downward
7/18/2017	12:59	3.57	4.40	Dry	-0.83	Downward
7/18/2017	14:44	3.58	4.40	Dry	-0.82	Downward
7/18/2017	16:33	3.58	4.39	Dry	-0.81	Downward
7/19/2017	14:40	3.64	4.48	Dry	-0.84	Downward
7/20/2017	11:43	3.69	4.57	Dry	-0.88	Downward
7/20/2017	13:30	3.70	4.58	Dry	-0.88	Downward
7/20/2017	15:22	3.70	4.58	Dry	-0.88	Downward
7/21/2017	14:00	3.79	4.71	Dry	-0.92	Downward
7/21/2017	16:18	3.78	4.73	Dry	-0.95	Downward
7/24/2017	13:12	4.02	5.05	Dry	-1.03	Downward
7/24/2017	14:37	4.02	5.05	Dry	-1.03	Downward
7/24/2017	17:45	4.03	5.06	Dry	-1.03	Downward
7/25/2017	9:20	4.04	5.06	Dry	-1.02	Downward
7/25/2017	11:23	4.05	5.06	Dry	-1.01	Downward
7/25/2017	13:52	4.05	5.07	Dry	-1.02	Downward
7/25/2017	17:15	4.06	5.08	Dry	-1.02	Downward
7/26/2017	9:13	4.08	5.11	Dry	-1.03	Downward
7/26/2017	12:08	4.09	5.11	Dry	-1.02	Downward
7/26/2017	14:08	4.10	5.13	Dry	-1.03	Downward
7/26/2017	16:22	4.11	5.14	Dry	-1.03	Downward
7/27/2017	8:50	4.15	5.18	Dry	-1.03	Downward
7/27/2017	12:25	4.17	5.19	Dry	-1.02	Downward
7/27/2017	14:43	4.18	5.19	Dry	-1.01	Downward
7/27/2017	16:50	4.18	5.19	Dry	-1.01	Downward
7/28/2017	8:42	4.22	5.24	Dry	-1.02	Downward
7/28/2017	11:17	4.24	5.26	Dry	-1.02	Downward
7/28/2017	13:13	4.23	5.26	Dry	-1.03	Downward
7/28/2017	14:35	4.24	5.26	Dry	-1.02	Downward
7/28/2017	16:51	4.24	5.27	Dry	-1.03	Downward
7/29/2017	9:50	4.30	5.34	Dry	-1.04	Downward
7/29/2017	11:20	4.30	5.35	Dry	-1.05	Downward
7/29/2017	13:20	4.30	5.35	Dry	-1.05	Downward
7/31/2017	12:55	4.48	5.59	Dry	-1.11	Downward
7/31/2017	14:58	4.48	5.59	Dry	-1.11	Downward

ft btoc feet below top of casing

<u>1/</u> Water-level measurements for deeper screened piezometer have been corrected based on a difference in casing height of 1.81 feet between the shallow screened and deeper screened piezometers in order to conduct a comparison of vertical head changes.

Hydrograph of Water-Level Measurements Collected from Piezometer near the Onsite Pond During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



LBG Hydrogeologic & Engineering Services, P.C.

Manual Water-Level Measurements Collected from Piezometer Location PZ-Pond During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

		Interior Piezometer Depth	Exterior Depth to	Vertical Head	Vertical Head Direction
Date	Time	to Groundwater	Surface Water	(Surface Water-Shallow	(Surface Water-
		(ft btoc)	(ft btoc)	Groundwater)	Shallow Groundwater)
			PZ-Pond		
7/6/2017	12:27	2.45	2.45	0.00	Neutral
7/6/2017	14:30	2.45	2.45	0.00	Neutral
7/7/2017	13:36	2.36	2.42	0.06	Upward
7/7/2017	15:33	2.41	2.39	-0.02	Downward
7/8/2017	14:30	2.40	2.39	-0.01	Downward
7/9/2017	11:10	2.40	2.39	-0.01	Downward
7/9/2017	16:03	2.41	2.40	-0.01	Downward
7/10/2017	9:53	2.44	2.43	-0.01	Downward
7/10/2017	11:17	2.45	2.44	-0.01	Downward
7/10/2017	13:42	2.45	2.43	-0.02	Downward
7/10/2017	18:14	2.45	2.52	0.07	Upward
7/10/2017	21:34	2.39	2.43	0.04	Upward
7/11/2017	0:13	2.43	2.40	-0.03	Downward
7/11/2017	1:46	2.43	2.40	-0.03	Downward
7/11/2017	4:30	2.38	2.40	0.02	Upward
7/11/2017	6:49	2.35	2.40	0.05	Upward
7/11/2017	8:59	2.36	2.39	0.03	Upward
7/11/2017	12:15	2.35	2.31	-0.04	Downward
7/11/2017	13:45	2.32	2.29	-0.03	Downward
7/11/2017	14:47	2.31	2.28	-0.03	Downward
7/11/2017	15:43	2.29	2.28	-0.01	Downward
7/11/2017	16:46	2.29	2.28	-0.01	Downward
7/11/2017	18:01	2.27	2.28	0.01	Upward
7/11/2017	23:35	2.27	2.28	0.01	Upward
7/11/2017	23:55	2.25	2.27	0.02	Upward
7/12/2017	0:15	2.24	2.27	0.03	Upward
7/12/2017	1:29	2.24	2.27	0.03	Upward
7/12/2017	4:18	2.23	2.27	0.04	Upward
7/12/2017	6:49	2.22	2.27	0.05	Upward
7/12/2017	8:40	2.21	2.30	0.09	Upward
7/12/2017	10:03	2.25	2.32	0.07	Upward
7/12/2017	15:54	2.27	2.30	0.03	Upward
7/12/2017	17:19	2.27	2.31	0.04	Upward
7/12/2017	18:34	2.27	2.30	0.03	Upward
7/12/2017	22:30	2.27	2.31	0.04	Upward
7/13/2017	1:22	2.27	2.28	0.01	Upward
7/13/2017 7/13/2017	4:14 6:20	2.29 2.28	2.30 2.28	0.01	Upward Neutral
7/13/2017	8:22	2.28	2.28	0.00	Upward
7/13/2017	9:22	2.29	2.31	0.00	Neutral
7/13/2017	10:06	2.31	2.31	0.00	Neutral
7/13/2017	10:50	2.35	2.31	-0.04	Downward
7/13/2017	11:54	2.33	2.31	0.00	Neutral Neutral
7/13/2017	16:58	2.22	2.20	-0.02	Downward
7/13/2017	19:00	2.24	2.21	-0.02	Downward
7/13/2017	22:56	2.24	2.22	-0.03	Downward
7/14/2017	2:04	2.25	2.22	-0.02	Downward
7/14/2017	4:44	2.25	2.22	-0.03	Downward
7/14/2017	8:42	2.20	2.30	0.10	Upward
7/14/2017	9:47	2.17	2.20	0.03	Upward
7/14/2017	10:57	2.08	2.20	0.03	Upward
7/14/2017	11:50	2.13	2.15	0.02	Upward
7/14/2017	13:16	2.10	2.15	0.05	Upward
//11/201/	15.10	2.10	4.1 J	0.03	Opwaru .

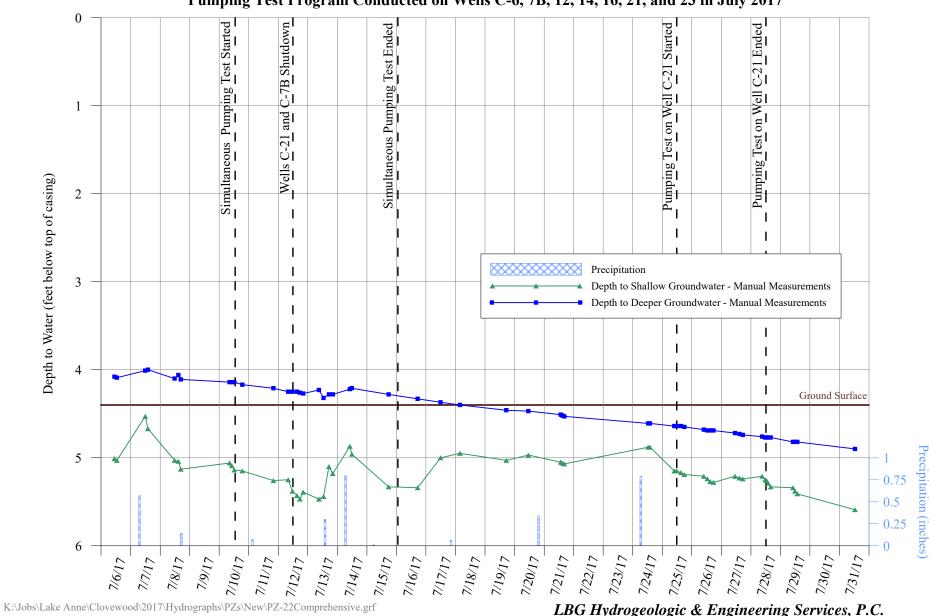
Manual Water-Level Measurements Collected from Piezometer Location PZ-Pond During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

		Interior Piezometer Depth	Exterior Depth to	Vertical Head	Vertical Head Direction
Date	Time	to Groundwater	Surface Water	(Surface Water-Shallow	(Surface Water-
	Į.	(ft btoc)	(ft btoc)	Groundwater)	Shallow Groundwater)
7/14/2017	23:41	2.06	2.12	0.06	Upward
7/15/2017	3:00	2.05	2.12	0.07	Upward
7/15/2017	6:36	2.08	2.12	0.04	Upward
7/15/2017	18:07	2.11	2.10	-0.01	Downward
7/16/2017	11:03	2.15	2.15	0.00	Neutral
7/16/2017	13:05	2.15	2.15	0.00	Neutral
7/16/2017	15:05	2.15	2.25	0.10	Upward
7/17/2017	14:02	2.20	2.24	0.04	Upward
7/17/2017	15:41	2.21	2.24	0.03	Upward
7/17/2017	17:42	2.21	2.24	0.03	Upward
7/18/2017	12:56	2.23	2.23	0.00	Neutral
7/18/2017	14:53	2.24	2.25	0.01	Upward
7/18/2017	16:40	2.25	2.25	0.00	Neutral
7/19/2017	13:30	2.28	2.27	-0.01	Downward
7/20/2017	12:10	2.32	2.32	0.00	Neutral
7/20/2017	14:05	2.32	2.32	0.00	Neutral
7/20/2017	15:45	2.34	2.34	0.00	Neutral
7/21/2017	14:21	2.35	2.32	-0.03	Downward
7/21/2017	15:44	2.35	2.32	-0.03	Downward
7/24/2017	13:52	2.31	2.30	-0.01	Downward
7/24/2017	18:10	2.32	2.31	-0.01	Downward
7/25/2017	8:33	2.31	2.31	0.00	Neutral
7/25/2017	10:59	2.31	2.30	-0.01	Downward
7/25/2017	14:14	2.33	2.32	-0.01	Downward
7/25/2017	16:04	2.32	2.32	0.00	Neutral
7/26/2017	8:44	2.33	2.33	0.00	Neutral
7/26/2017	11:39	2.33	2.33	0.00	Neutral
7/26/2017	13:38	2.36	2.34	-0.02	Downward
7/26/2017	15:38	2.36	2.34	-0.02	Downward
7/27/2017	8:08	2.36	2.36	0.00	Neutral
7/27/2017	11:49	2.35	2.36	0.01	Upward
7/27/2017	13:50	2.37	2.36	-0.01	Downward
7/27/2017	15:57	2.37	2.36	-0.01	Downward
7/28/2017	7:51	2.40	2.38	-0.02	Downward
7/28/2017	10:50	2.40	2.38	-0.02	Downward
7/28/2017	13:38	2.40	2.38	-0.02	Downward
7/28/2017	15:08	2.40	2.39	-0.01	Downward
7/28/2017	17:31	2.41	2.39	-0.02	Downward
7/29/2017	9:35	2.42	2.40	-0.02	Downward
7/29/2017	10:55	2.43	2.41	-0.02	Downward
7/29/2017	12:40	2.43	2.41	-0.02	Downward
7/31/2017	13:21	2.50	2.48	-0.02	Downward
7/31/2017	15:56	2.50	2.50	0.00	Neutral

ft btoc feet below top of casing

 $K: \label{loss} Lake\ Anne \ Clovewood \ 2017 \ Report \ PZ-Pond.doc$

Hydrograph of Water-Level Measurements Collected from Piezometer at Location PZ-22 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Manual Water-Level Measurements Collected from Piezometer Location PZ-22 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Shallow Screened Piezometer Depth to Water (ft btoc)	Deeper Screened Piezometer Depth to Water ^{1/2} (ft btoc)	Exterior Depth to Surface Water (ft btoc)	Vertical Head (Shallow Groundwater-Deeper Groundwater)	Vertical Head Direction (Shallow Groundwater- Deeper Groundwater)
				PZ-22	•	•
7/6/2017	10:57	5.01	4.08	Dry	0.93	Upward
7/6/2017	12:52	5.03	4.09	Dry	0.94	Upward
7/7/2017	11:57	4.53	4.01	Dry	0.52	Upward
7/7/2017	14:02	4.67	4.00	Dry	0.67	Upward
7/8/2017	11:50	5.03	4.10	Dry	0.93	Upward
7/8/2017	14:50	5.04	4.06	Dry	0.98	Upward
7/8/2017	16:48	5.13	4.11	Dry	1.02	Upward
7/10/2017	8:25	5.06	4.14	Dry	0.92	Upward
7/10/2017	10:12	5.09	4.14	Dry	0.95	Upward
7/10/2017	12:16	5.14	4.14	Dry	1.00	Upward
7/10/2017	18:51	5.15	4.17	Dry	0.98	Upward
7/11/2017	20:05	5.26	4.21	Dry	1.05	Upward
7/12/2017	8:05	5.25	4.25	Dry	1.00	Upward
7/12/2017	11:30	5.38	4.25	Dry	1.13	Upward
7/12/2017	15:16	5.43	4.25	Dry	1.18	Upward
7/12/2017	17:36	5.47	4.26	Dry	1.21	Upward
7/12/2017	20:14	5.39	4.27	Dry	1.12	Upward
7/13/2017	9:02 12:48	5.47 5.44	4.23 4.32	Dry	1.24 1.12	Upward Upward
7/13/2017	17:09	5.44	4.32	Dry	0.82	
7/13/2017 7/13/2017	20:16	5.18	4.28	Dry Dry	0.82	Upward Upward
7/14/2017	10:10	4.87	4.22	Dry	0.65	Upward
7/14/2017	11:49	4.96	4.21	Dry	0.05	Upward
7/15/2017	17:40	5.33	4.28	Dry	1.05	Upward
7/16/2017	17:15	5.34	4.33	Dry	1.01	Upward
7/17/2017	11:55	5.00	4.37	Dry	0.63	Upward
7/18/2017	3:39	4.95	4.40	Dry	0.55	Upward
7/19/2017	17:20	5.03	4.46	Dry	0.57	Upward
7/20/2017	11:16	4.97	4.47	Dry	0.50	Upward
7/21/2017	13:29	5.05	4.51	Dry	0.54	Upward
7/21/2017	14:47	5.06	4.52	Dry	0.54	Upward
7/21/2017	16:28	5.07	4.53	Dry	0.54	Upward
7/24/2017	12:31	4.88	4.61	Dry	0.27	Upward
7/24/2017	14:01	4.88	4.61	Dry	0.27	Upward
7/25/2017	9:48	5.15	4.64	Dry	0.51	Upward
7/25/2017	11:47	5.15	4.64	Dry	0.51	Upward
7/25/2017	15:15	5.17	4.64	Dry	0.53	Upward
7/25/2017	17:59	5.19	4.65	Dry	0.54	Upward
7/26/2017	9:48	5.21	4.68	Dry	0.53	Upward
7/26/2017	12:38	5.24	4.69	Dry	0.55	Upward
7/26/2017	15:00	5.27	4.69	Dry	0.58	Upward
7/26/2017	17:38	5.28	4.69	Dry	0.59	Upward
7/27/2017	11:07	5.21	4.72	Dry	0.49	Upward
7/27/2017	14:46	5.23	4.73	Dry	0.50	Upward
7/27/2017	17:24	5.24	4.74	Dry	0.50	Upward
7/28/2017	9:13	5.21	4.76	Dry	0.45	Upward
7/28/2017	11:43	5.25	4.77	Dry	0.48	Upward
7/28/2017	12:51	5.26	4.77	Dry	0.49	Upward
7/28/2017	14:05	5.29	4.77	Dry	0.52	Upward
7/28/2017	16:07	5.33	4.77	Dry	0.56	Upward
7/29/2017	10:15	5.34	4.82	Dry	0.52	Upward

Manual Water-Level Measurements Collected from Piezometer Location PZ-22 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

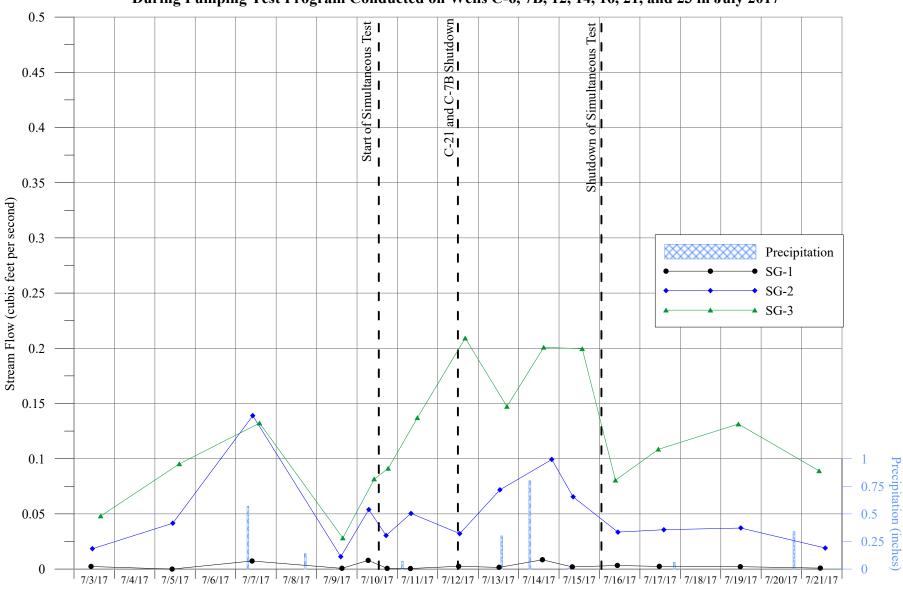
Date	Time	Shallow Screened Piczometer Depth to Water (ft btoc)	Deeper Screened Piezometer Depth to Water ^{1/} (ft btoc)	Exterior Depth to Surface Water (ft btoc)	Vertical Head (Shallow Groundwater-Deeper Groundwater)	Vertical Head Direction (Shallow Groundwater- Deeper Groundwater)
7/29/2017	11:45	5.38	4.82	Dry	0.56	Upward
7/29/2017	13:45	5.41	4.82	Dry	0.59	Upward
7/31/2017	12:35	5,59	4.90	Dry	0.69	Upward

ft btoc feet below top of casing

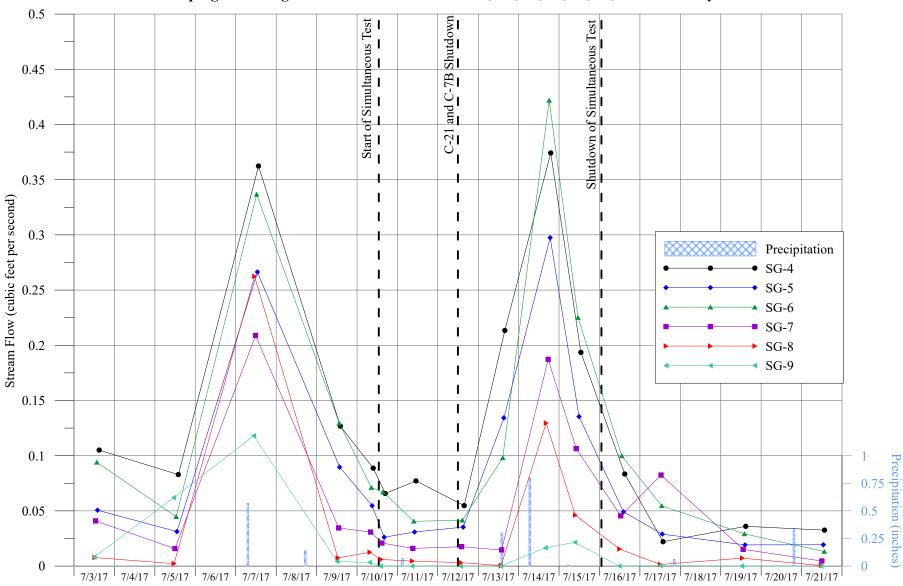
<u>1/</u> Water-level measurements for deeper screened piezometer have been corrected based on a difference in casing height of 1.10 feet between the shallow screened and deeper screened piezometers in order to conduct a comparison of vertical head changes.

APPENDIX IX

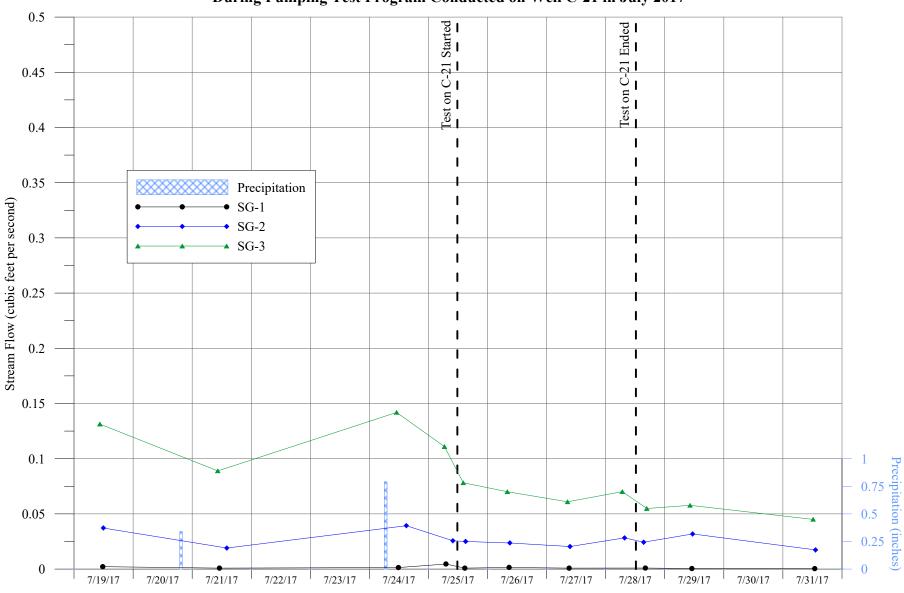
Graph of Stream Gaging Measurements Collected from Gaging Locations SG-1, 2 and 3 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



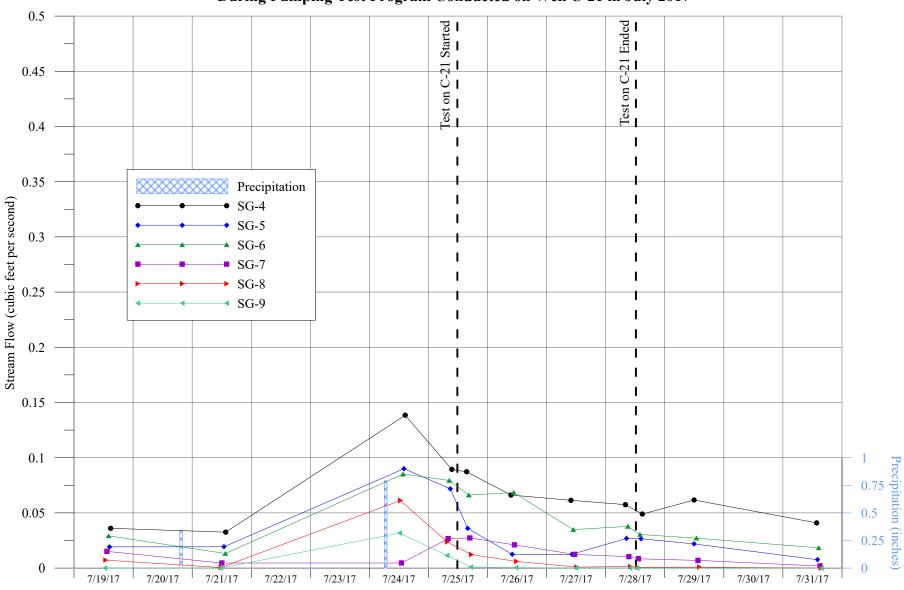
Graph of Stream Gaging Measurements Collected from Gaging Locations SG-4, 5, 6, 7, 8 and 9 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 in July 2017



Graph of Stream Gaging Measurements Collected from Gaging Locations SG-1, 2 and 3 During Pumping Test Program Conducted on Well C-21 in July 2017



Graph of Stream Gaging Measurements Collected from Gaging Locations SG-4, 5, 6, 7, 8 and 9 During Pumping Test Program Conducted on Well C-21 in July 2017



Stream Flow Measurements Collected During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Flow (cfs)	Date	Time	Flow (cfs)	Date	Time	Flow (cfs)
	SG-1			SG-2			SG-3	
7/3/2017	10:08	0.002	7/3/2017	10:55	0.018	7/3/2017	15:51	0.048
7/5/2017	10:20	0.000	7/5/2017	10:38	0.042	7/5/2017	14:32	0.095
7/7/2017	9:45	0.007	7/7/2017	10:07	0.139	7/7/2017	14:10	0.132
7/9/2017	15:05	0.001	7/9/2017	14:25	0.011	7/9/2017	15:35	0.028
7/10/2017	6:38	0.008	7/10/2017	7:02	0.054	7/10/2017	10:15	0.082
7/10/2017	17:55	0.001	7/10/2017	17:17	0.030	7/10/2017	18:34	0.091
7/11/2017	7:48	0.000	7/11/2017	8:08	0.050	7/11/2017	11:55	0.137
7/12/2017	12:24	0.003	7/12/2017	13:01	0.032	7/12/2017	16:15	0.209
7/13/2017	12:25	0.002	7/13/2017	12:53	0.072	7/13/2017	17:03	0.147
7/14/2017	14:05	0.008	7/14/2017	19:41	0.099	7/14/2017	14:55	0.201
7/15/2017	7:53	0.002	7/15/2017	8:22	0.066	7/15/2017	13:45	0.200
7/16/2017	10:38	0.003	7/16/2017	10:59	0.033	7/16/2017	9:30	0.081
7/17/2017	11:33	0.002	7/17/2017	14:12	0.036	7/17/2017	10:59	0.109
7/19/2017	11:39	0.002	7/19/2017	11:57	0.037	7/19/2017	10:30	0.131
7/21/2017	11:06	0.001	7/21/2017	14:05	0.019	7/21/2017	10:25	0.089
7/24/2017	11:48	0.001	7/24/2017	15:00	0.039	7/24/2017	11:04	0.142
7/25/2017	7:05	0.005	7/25/2017	9:55	0.026	7/25/2017	6:29	0.111
7/25/2017	14:46	0.001	7/25/2017	15:05	0.025	7/25/2017	14:08	0.078
7/26/2017	8:47	0.001	7/26/2017	9:04	0.024	7/26/2017	8:02	0.070
7/27/2017	9:09	0.001	7/27/2017	9:31	0.020	7/27/2017	8:31	0.061
7/28/2017	723	0.001	7/28/2017	7:40	0.028	7/28/2017	6:46	0.070
7/28/2017	16:08	0.001	7/28/2017	15:25	0.024	7/28/2017	16:42	0.055
7/29/2017	11:01	0.000	7/29/2017	11:20	0.032	7/29/2017	10:19	0.058
7/31/2017	12:56	0.000	7/31/2017	13:14	0.017	7/31/2017	12:15	0.045
	SG-4			SG-5			SG-6	
7/3/2017	15:00	0.105	7/3/2017	13:57	0.051	7/3/2017	13:35	0.094
7/5/2017	13:58	0.083	7/5/2017	13:07	0.031	7/5/2017	12:38	0.045
7/7/2017	13:33	0.362	7/7/2017	12:51	0.266	7/7/2017	12:28	0.337
7/9/2017	14:10	0.127	7/9/2017	13:42	0.090	7/9/2017	13:30	0.129
7/10/2017	9:39	0.089	7/10/2017	9:00	0.055	7/10/2017	8:34	0.071
7/10/2017	16:47	0.066	7/10/2017	16:09	0.026	7/10/2017	15:31	0.067
7/11/2017	11:03	0.077	7/11/2017	10:14	0.031	7/11/2017	9:48	0.041
7/12/2017	15:40	0.055	7/12/2017	15:03	0.035	7/12/2017	14:35	0.042
7/13/2017	15:50	0.213	7/13/2017	15:10	0.134	7/13/2017	14:35	0.098
7/14/2017	19:05	0.374	7/14/2017	18:42	0.298	7/14/2017	18:10	0.422
7/15/2017	12:57	0.194	7/15/2017	11:54	0.135	7/15/2017	11:15	0.225
7/16/2017	15:00	0.083	7/16/2017	14:15	0.049	7/16/2017	13:15	0.100
7/17/2017	13:46	0.022	7/17/2017	13:17	0.029	7/17/2017	12:59	0.055
7/19/2017	14:54	0.036	7/19/2017	14:26	0.019	7/19/2017	14:04	0.029
7/21/2017	13:37	0.033	7/21/2017	12:56	0.019	7/21/2017	13:31	0.013
7/24/2017	14:32	0.138	7/24/2017	14:03	0.090	7/24/2017	13:42	0.085
7/25/2017	9:30	0.089	7/25/2017	8:52	0.072	7/25/2017	8:30	0.079
7/25/2017	15:31	0.087	7/25/2017	15:56	0.036	7/25/2017	16:25	0.066
7/26/2017	9:32	0.066	7/26/2017	10:01	0.012	7/26/2017	10:34	0.068
7/27/2017	9:53	0.061	7/27/2017	10:18	0.013	7/27/2017	10:50	0.035
7/28/2017	8:02	0.057	7/28/2017	8:29	0.027	7/28/2017	9:05	0.038
7/28/2017 7/29/2017	14:52 11:53	0.049 0.062	7/28/2017 7/29/2017	14:22 11:53	0.027 0.022	7/28/2017 7/29/2017	13:55 12:52	0.030
					0.022	7/31/2017		0.027
7/31/2017	13:43	0.041	7/31/2017	14:03	0.008	//31/201/	14:33	0.018

Stream Flow Measurements Collected During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Flow (cfs)	Date	Time	Flow (cfs)	Date	Time	Flow (cfs)
SG-7		SG-8			SG-9			
7/3/2017	12:50	0.041	7/3/2017	12:18	0.008	7/3/2017	11:58	0.008
7/5/2017	11:56	0.016	7/5/2017	11:23	0.002	7/5/2017	11:07	0.062
7/7/2017	11:48	0.209	7/7/2017	11:13	0.262	7/7/2017	10:41	0.118
7/9/2017	13:13	0.035	7/9/2017	12:40	0.007	7/9/2017	12:15	0.004
7/10/2017	8:05	0.031	7/10/2017	7:41	0.013	7/10/2017	7:29	0.003
7/10/2017	14:52	0.021	7/10/2017	14:19	0.006	7/10/2017	14:00	0.000
7/11/2017	9:10	0.016	7/11/2017	8:51	0.004	7/11/2017	8:39	0.000
7/12/2017	14:09	0.018	7/12/2017	13:39	0.003	7/12/2017	13:31	0.000
7/13/2017	13:53	0.015	7/13/2017	13:31	0.001	7/13/2017	13:20	0.000
7/14/2017	17:33	0.187	7/14/2017	16:20	0.130	7/14/2017	15:58	0.017
7/15/2017	10:15	0.106	7/15/2017	9:40	0.046	7/15/2017	9:22	0.021
7/16/2017	12:38	0.045	7/16/2017	11:55	0.015	7/16/2017	11:48	0.000
7/17/2017	12:32	0.082	7/17/2017	12:07	0.001	7/17/2017	11:58	0.000
7/19/2017	13:22	0.015	7/19/2017	12:50	0.007	7/19/2017	12:33	0.000
7/21/2017	12:03	0.005	7/21/2017	11:38	0.000	7/21/2017	11:30	0.000
7/24/2017	13:02	0.005	7/24/2017	12:37	0.061	7/24/2017	12:17	0.032
7/25/2017	8:02	0.027	7/25/2017	7:39	0.024	7/25/2017	7:31	0.011
7/25/2017	16:48	0.027	7/25/2017	17:27	0.012	7/25/2017	17:16	0.001
7/26/2017	10:57	0.021	7/26/2017	11:44	0.006	7/26/2017	11:34	0.001
7/27/2017	11:22	0.012	7/27/2017	12:12	0.001	7/27/2017	11:59	0.000
7/28/2017	9:25	0.010	7/28/2017	10:01	0.001	7/28/2017	9:52	0.000
7/28/2017	13:20	0.008	7/28/2017	12:55	0.001	7/28/2017	12:45	0.000
7/29/2017	13:27	0.007	7/29/2017	14:05	0.001	7/31/2017	15:40	0.000
7/31/2017	15:04	0.002	7/31/2017	15:27	0.000			

cfs cubic feet per second

 $K:\label{loss} Lake\ Anne\ Clovewood\ 2017\ Report\ SG\ Table.doc$

APPENDIX X



ANALYTICAL REPORT

Job Number: 420-123595-1 SDG Number: Clovewood Job Description: LBG, Inc.

For:

Leggette, Brashears & Graham, Inc. 4 Research Drive Shelton, CT 06464

Attention: Stacy Stieber

Debra Bayer

Subbra 50

Customer Service Manager dbayer@envirotestlaboratories.com

08/24/2017

NYSDOH ELAP does not certify for all parameters. EnviroTest Laboratories does hold certification for all analytes where certification is offered by ELAP unless otherwise specified in the Certification Information section of this report. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval of the laboratory. EnviroTest Laboratories Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our laboratory. All questions regarding this report should be directed to the EnviroTest Customer Service Representative.

EnviroTest Laboratories, Inc. Certifications and Approvals: NYSDOH 10142, NJDEP NY015, CTDOPH PH-0554



METHOD SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-1 SDG Number: Clovewood

Description	Lab Location	Method	Preparation Method
Matrix: Water			
ICP Metals by 200.7 Sample Filtration Total Metals Digestion for 200.7 200 Series Drinking Water Prep Determination Step	EnvTest EnvTest EnvTest EnvTest	EPA 200.7 Rev	7 4.4 FILTRATION EPA 200.7 EPA 200.7/200.8
ICPMS Metals by 200.8 200 Series Drinking Water Prep Determination Step Total Metals Digestion for 200.8	EnvTest EnvTest EnvTest	EPA 200.8 Rev	7.5.4 EPA 200.7/200.8 EPA 200.8
Mercury in Water by CVAA Digestion for CVAA Mercury in Waters	EnvTest EnvTest	EPA 245.1 Rev	v.3.0 EPA 245.1
Anions by Ion Chromatography	EnvTest	MCAWW 300.0)
Anions by Ion Chromatography	EnvTest	EPA 300.0 Rev	<i>J</i> . 2.1
EPA 504.1 EDB	Pace	EPA 504.1	
EPA 505 Pesticide/PCB	Pace	EPA 505	
EPA 515 Chlorinated Acids	Pace	EPA 515	
Purgeable Organic Compounds in Water by GC/MS	EnvTest	EPA-DW 524.2	2
EPA 525.2 Semivolatile Organics	Pace	EPA 525.2	
EPA 531.1 Carbamate Pesticides in Drinki	Pace	EPA 531.1	
EPA 900 Series GA/GB/RA226/RA228/Gamma	Radios	EPA 900	
Uranium	Radios	STL-STL EPA	
Heterotropic Plate Count	EnvTest	IDEXX SIMPLA	ATE
Odor, Threshold Test	EnvTest	SM20 SM 2150	0B
Alkalinity, Titration Method	EnvTest	SM21 SM 2320	0B-97,-11
Corrosivity LSI Calculation	EnvTest	SM20 SM 2330	0B
Hardness by Calculation	EnvTest	SM20 SM 2340	0B-97,-11
pH	EnvTest	SM19 SM 4500	0 H+ B
Nitrite by Colormetric	EnvTest	SM20 SM 4500	0 NO2 B
Total Coliform and Escherichia coli by Colilert- Presence/Absence	EnvTest	SMWW SM 92	23
Apparent Color	EnvTest	SM21 SM2120	DB-01,11
Turbidity	EnvTest	SM21 SM2130	0B-01,11
Total Dissolved Solids (Dried at 180 °C)	EnvTest	SM21 SM2540	OC-97,11
Cyanide, Total: Colorimetric Method Cyanide: Distillation	EnvTest EnvTest	SM21 SM4500	CN E-99 SM21 SM 4500 CN C
General Sub Contract Method	Pace	Subcontract	
General Sub Contract Method	Radios	Subcontract	

METHOD SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-1 SDG Number: Clovewood

Description Lab Location Method Preparation Method

Lab References:

EnvTest = EnviroTest

Pace = Pace Analytical - Ormond Beach

Radios = Pace Analytical Services, Inc.

Method References:

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

IDEXX =

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM19 = "Standard Methods For The Examination Of Water And Wastewater", 19Th Edition, 1995."

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SM21 = "Standard Methods For The Examination Of Water And Wastewater", 21st Edition

SMWW = "Standard Methods for the Examination of Water and Wastewater"

STL-STL = Severn Trent Laboratories, St. Louis, Facility Standard Operating Procedure.

METHOD / ANALYST SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-1 SDG Number: Clovewood

Method	Analyst	Analyst ID
EPA-DW 524.2	Andersen, Eric C	ECA
EPA 200.7 Rev 4.4	Sirico, Derek	DS
EPA 200.8 Rev.5.4	Sirico, Derek	DS
EPA 245.1 Rev.3.0	Sirico, Derek	DS
SM20 SM 2340B-97,-11	Sirico, Derek	DS
MCAWW 300.0	Luis, Carlos	CL
EPA 300.0 Rev. 2.1	Luis, Carlos	CL
IDEXX SIMPLATE	O'Driscoll, Kate	ко
SM20 SM 2150B	O'Driscoll, Kate	ко
SM21 SM 2320B-97,-11	Tramantano, Matt	MT
SM20 SM 2330B	Cusack, Renee	RC
SM19 SM 4500 H+ B	O'Driscoll, Kate	КО
SM20 SM 4500 NO2 B	Grant, Ameya	AG
SMWW SM 9223	Grant, Ameya	AG
SM21 SM2120B-01,11	O'Driscoll, Kate	КО
SM21 SM2130B-01,11	O'Driscoll, Kate	КО
SM21 SM2540C-97,11	O'Driscoll, Kate	КО
SM21 SM4500 CN E-99	Osborne, Amy	AO

SAMPLE SUMMARY

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-1

SDG Number: Clovewood

			Date/Time	Date/Time
Lab Sample ID	Client Sample ID	Client Matrix	Sampled	Received
420-123595-1	C - 6	Drinking Water	07/13/2017 0950	07/13/2017 1000

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-1

Sdg Number: Clovewood

Client Sample ID: C - 6

 Lab Sample ID:
 420-123595-1
 Date Sampled:
 07/13/2017
 0950

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

524.2 Purgeable Organic Compounds in Water by GC/MS

Method: 524.2 Analysis Batch: 420-112453 Instrument ID: Agilent 7890A/5975C

Preparation: N/A Lab File ID: X071418.D

Dilution: 1.0 Initial Weight/Volume: 5 mL

Date Analyzed: 07/14/2017 1812 Final Weight/Volume: 5 mL

Date Prepared: N/A

Analyte	Result (ug/L) Qualifier	RL
1,1,1,2-Tetrachloroethane	<0.500	0.500
1,1,1-Trichloroethane	<0.500	0.500
1,1,2,2-Tetrachloroethane	<0.500	0.500
1,1,2-Trichloroethane	<0.500	0.500
1,1-Dichloroethane	<0.500	0.500
1,1-Dichloroethene	<0.500	0.500
1,1-Dichloropropene	<0.500	0.500
1,2,3-Trichlorobenzene	<0.500	0.500
1,2,3-Trichloropropane	<0.500	0.500
1,2,4-Trichlorobenzene	<0.500	0.500
1,2,4-Trimethylbenzene	<0.500	0.500
1,2-Dichloroethane	<0.500	0.500
1,2-Dichlorobenzene	<0.500	0.500
1,2-Dichloropropane	<0.500	0.500
1,3-Dichloropropane	<0.500	0.500
1,4-Dichlorobenzene	<0.500	0.500
2,2-Dichloropropane	<0.500	0.500
Benzene	<0.500	0.500
Bromobenzene	<0.500	0.500
Bromochloromethane	<0.500	0.500
Bromomethane	<0.500	0.500
n-Butylbenzene	<0.500	0.500
cis-1,2-Dichloroethene	<0.500	0.500
cis-1,3-Dichloropropene	<0.500	0.500
Carbon tetrachloride	<0.500	0.500
Chlorobenzene	<0.500	0.500
Chloroethane	<0.500	0.500
Chloromethane	<0.500	0.500
Dibromomethane	<0.500	0.500
Ethylbenzene	<0.500	0.500
Dichlorodifluoromethane	<0.500	0.500
Hexachlorobutadiene	<0.500	0.500
Isopropylbenzene	<0.500	0.500
p-Isopropyltoluene	<0.500	0.500
Methylene Chloride	<0.500	0.500
m-Xylene & p-Xylene	<1.00	1.00
Methyl tert-butyl ether	<0.500	0.500
o-Xylene	<0.500	0.500
Tetrachloroethene	<0.500	0.500
Toluene	<0.500	0.500
trans-1,2-Dichloroethene	<0.500	0.500
trans-1,3-Dichloropropene	<0.500	0.500
Trichloroethene	<0.500	0.500
tert-Butylbenzene	<0.500	0.500

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-1

Sdg Number: Clovewood

Client Sample ID: C - 6

 Lab Sample ID:
 420-123595-1
 Date Sampled:
 07/13/2017
 0950

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

524.2 Purgeable Organic Compounds in Water by GC/MS

Method: 524.2 Analysis Batch: 420-112453 Instrument ID: Agilent 7890A/5975C

 Preparation:
 N/A
 Lab File ID:
 X071418.D

 Dilution:
 1.0
 Initial Weight/Volume:
 5 mL

 Date Analyzed:
 07/14/2017 1812
 Final Weight/Volume:
 5 mL

Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL
Trichlorofluoromethane	<0.500		0.500
Vinyl chloride	<0.500		0.500
Xylenes, Total	<1.50		1.50
Styrene	<0.500		0.500
sec-Butylbenzene	<0.500		0.500
1,3,5-Trimethylbenzene	<0.500		0.500
N-Propylbenzene	<0.500		0.500
1,3-Dichlorobenzene	<0.500		0.500
2-Chlorotoluene	<0.500		0.500
4-Chlorotoluene	<0.500		0.500
Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene	91		71 - 120
Toluene-d8 (Surr)	115		79 - 121
1,2-Dichloroethane-d4 (Surr)	116		70 - 128

Job Number: 420-123595-1 Client: Leggette, Brashears & Graham, Inc.

Sdg Number: Clovewood

10.0

Client Sample ID: C - 6

Date Prepared:

Manganese

Lab Sample ID: 420-123595-1 Date Sampled: 07/13/2017 0950 Client Matrix: **Drinking Water** Date Received: 07/13/2017 1000

200.7 Rev 4.4 ICP Metals by 200.7

Instrument ID: Thermo ICP Method: 200.7 Rev 4.4 Analysis Batch: 420-112479

Preparation: Prep Batch: 420-112493 N/A 200.7/200.8 Lab File ID:

Dilution: Initial Weight/Volume: 50 mL 1.0 Date Analyzed: 07/17/2017 1421 Final Weight/Volume: 50 mL 07/17/2017 0925

Analyte Result (ug/L) Qualifier RL 1210 60.0 Iron g

Manganese 10.0 201 Sodium 19900 200 Zinc <20.0 20.0

200.7 Rev 4.4 ICP Metals by 200.7-Dissolved

Method: Analysis Batch: 420-112597 Instrument ID: Thermo ICP 200.7 Rev 4.4

Preparation: 200.7 Prep Batch: 420-112501 Lab File ID: N/A Dilution: 1.0 Initial Weight/Volume: 50 mL

Date Analyzed: 07/19/2017 1821 Final Weight/Volume: 50 mL 07/17/2017 1505 Date Prepared:

209

Analyte Result (ug/L) Qualifier RL <60.0 60.0 Iron

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-1

Sdg Number: Clovewood

Client Sample ID: C - 6

 Lab Sample ID:
 420-123595-1
 Date Sampled:
 07/13/2017
 0950

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

200.8 Rev.5.4 ICPMS Metals by 200.8

Method: 200.8 Rev.5.4 Analysis Batch: 420-112457 Instrument ID: Perkin Elmer ELAN

Preparation: 200.7/200.8 Prep Batch: 420-112493 Lab File ID: N/A
Dilution: 1.0 Initial Weight/Volume: 50 mL

Date Analyzed: 07/17/2017 1322 Final Weight/Volume: 50 mL Date Prepared: 07/17/2017 0925

Result (ug/L) RL Analyte Qualifier <1.00 1.00 Lead Arsenic <1.40 1.40 < 0.300 Beryllium 0.300 Cadmium <1.00 1.00 Chromium <7.00 7.00 1.04 0.500 Nickel < 0.400 0.400 Antimony < 0.300 0.300 Thallium Barium 14.6 2.00 Selenium <2.00 2.00 200.8 Rev.5.4 Instrument ID: Perkin Elmer ELAN Method: Analysis Batch: 420-112536 Preparation: 200.8 Prep Batch: 420-112520 Lab File ID: N/A Dilution: 1.0 Initial Weight/Volume: 50 mL 07/18/2017 1706 Date Analyzed: Final Weight/Volume: 50 mL Date Prepared: 07/17/2017 1800

 Analyte
 Result (ug/L)
 Qualifier
 RL

 Silver
 <1.00</td>
 1.00

245.1 Rev.3.0 Mercury in Water by CVAA

Method: 245.1 Rev.3.0 Analysis Batch: 420-112511 Instrument ID: Perkin Elmer FIMS Preparation: 245.1 Prep Batch: 420-112451 Lab File ID: N/A

Dilution: 1.0 Initial Weight/Volume: 25 mL

Date Analyzed: 07/18/2017 1209 Final Weight/Volume: 25 mL Date Prepared: 07/17/2017 1115

Analyte Result (ug/L) Qualifier RL

Mercury <0.200 0.200

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-1

Sdg Number: Clovewood

Client Sample ID: C - 6

 Lab Sample ID:
 420-123595-1
 Date Sampled:
 07/13/2017 0950

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017 1000

SM 2340B-97,-11 Hardness by Calculation

Method: SM 2340B-97,-11

Preparation: N/A
Dilution: 1.0

Date Analyzed: 07/17/2017 1421

Date Prepared: N/A

Analysis Batch: 420-112535

Instrument ID: None Lab File ID: N/A

Initial Weight/Volume: Final Weight/Volume:

Analyte Result (mg/L) Qualifier RL

Calcium hardness as calcium carbonate 66.1 1.25

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-1

Sdg Number: Clovewood

Rin	loav
	UM V

Client Sample ID: C - 6

Lab Sample ID: 420-123595-1 Client Matrix: Drinking Water Date Sampled: 07/13/2017 0950 Date Received: 07/13/2017 1000

Analyte Result Qual Units Dil Method Coliform, Total Absent CFU/100mL 1.0 SM 9223

Anly Batch: 420-112380 Date Analyzed 07/13/2017 1510

Escherichia coli Absent CFU/100mL 1.0 SM 9223

Anly Batch: 420-112380 Date Analyzed 07/13/2017 1510

Analyte Result Qual Units RL Dil Method
Heterotrophic Plate Count 132 CFU/mL 2.00 1.0 SIMPLATE

Anly Batch: 420-112413 Date Analyzed 07/13/2017 1550

General Chemistry

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-1

Sdg Number: Clovewood

General	Chemistry
General	CHEIIIISHV

Client Sample ID: C - 6

Lab Sample ID: 420-123595-1 Client Matrix: Drinking Water Date Sampled: 07/13/2017 0950

Date Received: 07/13/2017 1000

 Analyte
 Result
 Qual
 Units
 RL
 Dil
 Method

 Nitrate as N
 <0.250</td>
 mg/L
 0.250
 1.0
 300.0

Anly Batch: 420-112412 Date Analyzed 07/13/2017 1618

AnalyteResultQualUnitsDilMethodLangelier Index-0.810NONE1.0SM 2330B

Anly Batch: 420-112765 Date Analyzed 07/26/2017 1302

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-1

Sdg Number: Clovewood

General Chemistry

Client Sample ID: C - 6

Lab Sample ID: 420-123595-1
Client Matrix: Drinking Water

Date Sampled: 07/13/2017 0950 Date Received: 07/13/2017 1000

Analyte	Result	Qual Units	RL	Dil	Method
Alkalinity	139	mg/L	5.00	1.0	SM 2320B-97,-11
	Anly Batch: 420-112669	Date Analyzed 07/21/2017 1730			
Total Dissolved Solids	172	mg/L	5.00	1.0	SM2540C-97,11
	Anly Batch: 420-112602	Date Analyzed 07/20/2016 1700			
Chloride	2.17	mg/L	1.50	1.0	300.0 Rev. 2.1
	Anly Batch: 420-112412	Date Analyzed 07/13/2017 1618			
Sulfate	11.2	mg/L	5.00	1.0	300.0 Rev. 2.1
	Anly Batch: 420-112412	Date Analyzed 07/13/2017 1618			
Fluoride	<0.500	mg/L	0.500	1.0	300.0 Rev. 2.1
	Anly Batch: 420-112412	Date Analyzed 07/13/2017 1618			
Cyanide, Total	<0.00500	mg/L	0.00500	1.0	SM4500 CN E-99
	Anly Batch: 420-112524	Date Analyzed 07/18/2017 1400			
Ammanant Calan	Prep Batch: 20.0	Date Prepared: 07/14/2017 1300	2.00	1.0	SM2120B-01,11
Apparent Color	Anly Batch: 420-112486	g Pt-Co Date Analyzed 07/13/2017 1746	2.00	1.0	3W2120B-01,11
pH@color measurement	6.99	SU	2.00	1.0	SM2120B-01,11
	Anly Batch: 420-112486	Date Analyzed 07/13/2017 1746			
Turbidity	8.90	g NTU	0.100	1.0	SM2130B-01,11
,	Anly Batch: 420-112420	Date Analyzed 07/13/2017 1809			,
Odor	1.00	T.O.N.	1.00	1.0	SM 2150B
	Anly Batch: 420-112485	Date Analyzed 07/13/2017 1800			
Temp @ Odor Measurem	ent 60.0	Degrees C	5.00	1.0	SM 2150B
	Anly Batch: 420-112485	Date Analyzed 07/13/2017 1800			
pН	6.99	H SU	0.200	1.0	SM 4500 H+ B
	Anly Batch: 420-112487	Date Analyzed 07/13/2017 1741			
Temp @ pH Measuremer	nt 16.5	Degrees C	5.00	1.0	SM 4500 H+ B
	Anly Batch: 420-112487	Date Analyzed 07/13/2017 1741			
Nitrite as N	<0.0100	mg/L	0.0100	1.0	SM 4500 NO2 B
	Anly Batch: 420-112510	Date Analyzed 07/14/2017 1047			

DATA REPORTING QUALIFIERS

Client: Leggette, Brashears & Graham, Inc.

Job Number: Sdg Number: Clovewood

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te

Certification Information

Client: Leggette, Brashears & Graham, Inc. Job Number:

Sdg Number: Clovewood

The following analytes are Not Part of the ELAP scope of accreditation

Sulfur, Tungsten, Silicon, Bicarbonate Alkalinity, 7 Day BOD 5210C, 28 Day BOD, Soluble BOD, Carbon Dioxide, Carbonate Alkalinity, CBOD Soluble, Chlorine, Cyanide (WAD), Ferrous Iron, Ferric Iron, Total Nitrogen, Total Organic Nitrogen, Dissolved Oxygen, pH, Phenolphthalein Alkalinity, Solids (Fixed), Solids (Percent), Solids (Percent Moisture), Solids (Percent Volatile), Solids (Volatile Suspended), Temperature, TKN (Soluble), COD (Soluble), Total Inorganic Carbon, Volatile Acids as Acetic Acid, 2-Aminopyridine, 3-Picoline, 1-Methyl-2-pyrrilidinone, Aziridine, Dimethyl sulfoxide, 1-Chlorohexane, Iron Bacteria, Salmonella, & Sulfur Reducing Bacteria.

The following analytes are Not Part of ELAP Potable Water scope of accreditation

Cobalt (200.7, 200.8), Tin (200.7), Strontium (200.7), Gold (200.7), Platinum (200.7), Palladium (200.7), Titanium (200.7), Phosphorus (365.3), Nitrate-Nitrite (10-107-4-1C, 353.2), m-Xylene & p-Xylene (502.2, 524), Naphthalene (502.2), o-Xylene (502.2, 524), & Fecal Coliform (9222D).

The following analytes are Not Part of ELAP Solid and Hazardous Waste scope of accreditation

Ammonia (SM 4500NH3G), TKN (351.2), Phosphorus (365.3), 1,2-Dichloro-1,1,2-trifluoroethane (8260), & Chlorodifluoromethane (8260).

The following analytes are Not Part of ELAP Non Potable Water scope of accreditation

Dissolved Organic Carbon (5310C), Mecoprop (8151A), & MCPA (8151A).

Definitions and Glossary

Client: Leggette, Brashears & Graham, Inc. Job Number:

Sdg Number: Clovewood

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%R	Percent Recovery
DL, RA, RE	Indicates a Dilution, Reanalysis or Reextraction.
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit - an estimate of the minimum amount of a substance that an analytical process can reliably detect. A MDL is analyte- and matrix-specific and may be laboratory-dependent.
ND	Not detected at the reporting limit (or MDL if shown).
QC	Quality Control
RL	Reporting Limit - the minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.
RPD	Relative Percent Difference - a measure of the relative difference between two points

Page 16 of 18

EnviroTest Laboratories	lnc.	CHA Lab Name Address & Phone	Envi	roTe	st La	borato	ries						59			(REPORT# (L	.ab Use Only)
PROJECT REFERENCE Clovewood	PROJECT NO.	PROJECT LOCATION		MATRI) TYPE						REQU	JIRED	ANAL	YSES					PAGE 1 of	1
ENVIROTEST PROJECT MANAGER Debra Bayer CLIENT (SITE) PM	P.O. NUMBER CLIENT PHONE	TOWN				MPA C/G kit	40ml Vials HCI	um Thio.	um Thio.	/Na2SO3	tric Acid	io(liquid)	Liter Plastic	ium Hyd.	ic Sterile	tic Nitric	s Unpres		TURNAROUND TIME
LBG, Inc.	203-929-8555	J. L.	<i>IDICATE</i>	fater) Indicate		a. E	40ml	40ml Sodium Thio	250ml Amber Sodium Thio	Liter Amber HCI/Na2SO:	250ml Plastic Nitric Acid	40ml Mon/Sod.Thio(liquid	֟֟֟֟֝֟֟֝֟֟֓֓֓֓֓֓֓֟֟֟֓֟֟ <u>֟</u>	Plastic Sodium Hyd	25ml Plastic Sterile	Liter Plastic Nitric	40mi Vials Unpres	NORMAL	٨
Stacy Stieber			9 (G) m	(Waste Water)				•	nl An	ter A	50ml	9		ă.	12		\	QUICK	
CLIENT ADDRESS			R GRAI	w (w	9				250r	ב	ત્ય	6		250ml		}		VERBAL	
4 Research Drive, Suite 204, She COMPANY CONTRACTING THIS WORK (# applicable)		1	DSITE (C) OI	D (Drinking Water) or W	OR SEMISO		L					<u> </u>						#OF COOLERS	
SAMPLE DATE TIME	SAMPLE IDENTIFICA	TION	COMPOSIT	G til				١	UMBE	R OF	CONT	AINER	s sub	MITTE	D				REMARKS
7/13/17 950	C-6	·		ñ			3	2	1	2	1	2	4	1	2	5	2	Table 8B (Sb,A	s,Ba,Be,Cd,Cr,Cn,Hg,Ni
7.01				11	\top													Se,TI,F)	
		***************************************		Ш	1		\vdash											Table 8C (NO3,	NO2)
			\sqcap	111	⊤	2-Lite	r Ambe	er Unpre	es.									Table 8D (CI,Fe	e,Mn,Ag,Na,SO4,Zn,Odor,Color)
				171		1-250	ml Am	ber Unp	res.									524.2 (POC,MTBE,Vinyl Chloride)	
				Ш	\top	3-250	ml Pla	stic Unp	res. (n	o air)								SOCs (504,508	,515,525,531,547,548,549,Dloxin)
		W		Ш	-	2-40m	nl Amb	er Sodi	ım Thi	o.								Additional Test	ts (Total coliform
				Ш	1	1-500	mł Am	ber Soc	lium Th	io.								thru Zinc)	
				T		1-Lite	r Ambe	er Plast	c Sodi	ım Thi	o.&H2	SO4					Ì	Radio(Gross A	lpha/Beta,Radium-226/228,Uranium)
			П		1	2-Lite	r Ambe	er Sodiı	ım Thic).								Radon	
V V	V			V	┰								<u> </u>			T		Dissolved Fe, I	Mn
			П																
				П	T														
RELINQUISHIP BY: (SIGNATURE)	COMPANY 6	7/13/17	TIME	14	3	RECE	İVED	BY: (SI	GNAT	JRE)					COMP	ANY	•	DATE	TIME
SAMPUFINY (SIGNATUFIN)	COMPANY	DAYE //	TIME	35	2			BY: (SI							COMP.			DATE	TIME
RELINQUISHED BY (SIGNA) ORE)	COMPANY /	DATE	TIME			RECE	EIVED	BY: (SI	GNAT	JRE)			/		COMP	ANY		DATE	TIME
SUBCONTACT: PACE-SOCs, Radio, Radon; ASi-MPA/Crypto/Giardia																			
RECEIVED FOR LABORATORY BY:	711317 /K/3	CUSTODY INTACT YES NO				LABO		AY AE	MARK	S:	ICE	р	H	_ CL2		Revel	wed by	l	

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-1

SDG Number: Clovewood

Login Number: 123595

Question	T/F/NA	Comment
Samples were collected by ETL employee as per SOP-SAM-1	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is recorded.	True	3.5C
Cooler Temp. is within method specified range.(0-6 C PW, 0-8 C NPW, or BAC <10 C	True	
If false, was sample received on ice within 6 hours of collection.	NA	
Based on above criteria cooler temperature is acceptable.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	False	рН
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

Page 18 of 18

(724)850-5600



August 03, 2017

Ms. Debra Bayer EnviroTest Laboratories, Inc. 315 Fullerton Avenue Newburgh, NY 12550

RE: Project: 42001269

Pace Project No.: 30224102

Dear Ms. Bayer:

Enclosed are the analytical results for sample(s) received by the laboratory on July 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins acquelyn.collins@pace

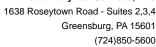
Suguely Cellins

jacquelyn.collins@pacelabs.com (724)850-5612 Project Manager

Enclosures

cc: Janine Rader, EnviroTest Laboratories, Inc.







CERTIFICATIONS

Project: 42001269
Pace Project No.: 30224102

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683 Georgia Certification #: C040

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification Missouri Certification #: 235 Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282 South Dakota Certification

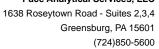
Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8 Utah/TNI Certification #: PA014572015-5 USDA Soil Permit #: P330-14-00213 Vermont Dept. of Health: ID# VT-0282 Virgin Island/PADEP Certification Virginia/VELAP Certification #: 460198 Washington Certification #: C868

West Virginia DEP Certification #: 143 West Virginia DHHR Certification #: 9964C

Wyoming Certification #: 8TMS-L

Wisconsin Certification

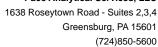




SAMPLE SUMMARY

Project: 42001269
Pace Project No.: 30224102

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30224102001	C-6 (420-123595-1)	Drinking Water	07/13/17 09:50	07/14/17 10:20

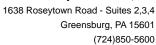




SAMPLE ANALYTE COUNT

Project: 42001269
Pace Project No.: 30224102

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30224102001	C-6 (420-123595-1)	SM7500RnB-07	NEG	1
		EPA 900.0	NEG	2
		EPA 903.1	WRR	1
		EPA 904.0	VAL	1
		ASTM D5174-97	RMK	1

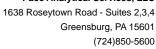




ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 42001269
Pace Project No.: 30224102

Sample: C-6 (420-123595-1) PWS:	Lab ID: 30224 Site ID:	Collected: 07/13/17 09:50 Sample Type:	Received:	07/14/17 10:20	Matrix: Drinking	Water
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radon	SM7500RnB-07	51.1 ± 28.9 (46.2) C:NA T:NA	pCi/L	07/15/17 07:4	1 10043-92-2	
Gross Alpha	EPA 900.0	0.079 ± 1.02 (2.67) C:NA T:NA	pCi/L	07/24/17 08:3	7 12587-46-1	
Gross Beta	EPA 900.0	0.099 ± 0.610 (1.45) C:NA T:NA	pCi/L	07/24/17 08:3	7 12587-47-2	
Radium-226	EPA 903.1	0.324 ± 0.335 (0.501) C:NA T:106%	pCi/L	07/26/17 13:0	9 13982-63-3	
Radium-228	EPA 904.0	0.549 ± 0.322 (0.624) C:76% T:90%	pCi/L	07/27/17 11:17	7 15262-20-1	
Total Uranium	ASTM D5174-97	0.210 ± 0.008 (0.193) C:NA T:NA	ug/L	08/02/17 16:1	1 7440-61-1	





QUALITY CONTROL - RADIOCHEMISTRY

Project:

42001269

Pace Project No.:

30224102

QC Batch:

265053

SM7500RnB-07

Analysis Method: Analysis Description: SM7500RnB-07 7500Rn B Radon

QC Batch Method: Associated Lab Samples:

METHOD BLANK: 1305441

30224102001

Associated Lab Samples: 30224102001

Matrix: Water

Parameter

Act ± Unc (MDC) Carr Trac

Units

Analyzed

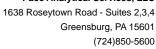
Qualifiers

Radon

2.8 ± 18.8 (32.7) C:NA T:NA

pCi/L 07/15/17 02:40

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





QUALITY CONTROL - RADIOCHEMISTRY

Project: 42001269 Pace Project No.:

30224102

QC Batch:

265152

Analysis Method:

EPA 903.1

QC Batch Method: EPA 903.1 Analysis Description:

903.1 Radium-226

Associated Lab Samples: METHOD BLANK: 1306510

30224102001

Matrix: Water

Associated Lab Samples:

30224102001

Parameter

Act ± Unc (MDC) Carr Trac

Units

Analyzed

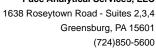
Qualifiers

Radium-226

0.159 ± 0.312 (0.570) C:NA T:95%

pCi/L 07/26/17 12:14

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





QUALITY CONTROL - RADIOCHEMISTRY

Project: 42001269
Pace Project No.: 30224102

QC Batch: 265148 Analysis Method: EPA 900.0

QC Batch Method: EPA 900.0 Analysis Description: 900.0 Gross Alpha/Beta

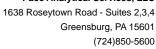
Associated Lab Samples: 30224102001

METHOD BLANK: 1306505 Matrix: Water

Associated Lab Samples: 30224102001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	-0.333 ± 0.399 (1.52) C:NA T:NA	pCi/L	07/24/17 08:35	
Gross Beta	-0.362 ± 0.578 (1.62) C:NA T:NA	pCi/L	07/24/17 08:35	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





QUALITY CONTROL - RADIOCHEMISTRY

Project: 4200

42001269

Pace Project No.:

30224102

QC Batch:

265158

Analysis Method:

EPA 904.0

QC Batch Method:

EPA 904.0

Analysis Description:

904.0 Radium 228

Associated Lab Samples:

30224102001

Matrix: Water

Associated Lab Samples:

METHOD BLANK: 1306521

30224102001

Parameter

Act ± Unc (MDC) Carr Trac

Units pCi/L Analyzed

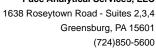
Qualifiers

Radium-228

0.0810 ± 0.316 (0.717) C:75% T:85%

07/27/17 11:14

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





QUALITY CONTROL - RADIOCHEMISTRY

Project: 420

42001269

Pace Project No.:

30224102

QC Batch:
QC Batch Method:

265552

ASTM D5174-97

Analysis Method:

ASTM D5174-97

Analysis Description:

D5174.97 Total Uranium KPA

Associated Lab Samples:

30224102001

METHOD BLANK: 1307891

.....

Matrix: Water

Associated Lab Samples:

30224102001

Parameter

Act ± Unc (MDC) Carr Trac

Units ug/L Analyzed

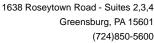
Qualifiers

Total Uranium

0.032 ± 0.001 (0.193) C:NA T:NA

07/26/17 12:46

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





QUALIFIERS

Project: 42001269
Pace Project No.: 30224102

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Date: 08/03/2017 01:25 PM

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

EnviroTest Laboratories, inc. 315 Fullerton Avenue Newburgh, NY 12550 Phone (845) 562-0890 Fax (845) 562-0841

Enviro l'est Laboratories, inc.								,		
s i 3 Fullerion Avenue Newburgh, NY 12550 Phone (845) 562-0890 Fax (845) 562-0841		ច	Chain of Custody Record	stody R	ecord				Envirolest Ex Laboratories Inc.	
Client Information (Sub Contract Lab)	Sampler.	136 71810B	Lab PM: مرم Bayer, Debra			Carrier Tracking No(s):	ng No(s):	COC No: 420-9117.1		
Jient Contact Shipping/Receiving				E-Mail: dbayer@envirotestlaboratories.com	es.com			Page:		
Sompany: Pace Analytical Services, Inc.					Analysis	Analysis Requested		STL Job #; 420-123595-4		
Address: 1638 Roseytown Rd, Suites 2,3,4,	Due Date Requested: 7/27/2017							Preservation Codes	codes:	
Jly: Greensburg	TAT Requested (days):							A - HCL B - NaOH		
State, Zip: PA, 15601	T			122 A5				D. Nitric Acid		
Phane:	PO #		(C)	\$\$e\F				F - MeOH G - Amchlor		
Email:	*Ow		STERNING PROPERTY.						1 T - TSP Dodecahydrate U - Acetone	
Project Name: LBG, Inc.	Project #: 42001269			siU lei				woodtowonicate	W-ph 4-5 Z-other (specify)	
Site:	SSOW#:		2000	oT /I:				noo h		
	Sample		Matrix 60 55 183 (W-water, 16 18 18 18 18 18 18 18 18 18 18 18 18 18	ВСОИТЯРС ВСОИТЯРС ВСОИТЯРС				al Number o		
Sample Identification Client ID (Lab ID)	Sample Date Time	G=grab) Br-mssus, A=Atr		ns					Special Instructions/Note:	
C - 6 (420-123595-1)	7/13/17 9:50		Water	×				7	138	

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						WO#:30224102	2410	Ο!		
) 	l		

The second secon	- The state of the				302241				The state of the s	
Descriptor (formal for the state of										
ant [Poison B Unknown] Radiological	Sar	iple Disposal (A fee may	be assessed if	samples are	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	n 1 month)	
ested: I, II, III, IV, Other (specify)			Spé	Special Instructions/QC Requirements:	'QC Requir	ements:	2001	ACTIVE TO	Months	
Empty Kit Relinquished by:	Date:		Time:			Method	Method of Shipment			100000
Relinquished by.	Date/Time: // / / / / / / / / / / / / / / / / /	0	Company	Recaewed by			Date/Time:	1.0%	Company	
Reinquished by:	Date/Time:		Company	Received by:			Date/Time:		Company	
Relinquished by:	Date/Time:	0	Company	Received by:		-	Date/Time:		Company	
Custody Seals Intact: Custody Seal No.:				Coder Temperature(s) °C and Other Remarks:	i(s) °C and Ot	er Remarks;				***************************************
- ON 0 00 0										_

Sample Condition Upon Re	ceipt	Pitts	sbur	gh	3022410
Face Analytical Client Name:	É	์กบ	, roji	test labos.	Project#
Courler: 7 Fed Ex UPS USPS CI Tracking #: 7796 254933	30		nercia	J ∏Pace Other	Label Z (- LIMS Login A (V)
Custody Seal on Cooler/Box Present:	\$	ľno e of lo	e; (N	als Intact: ☐ yes /et Blue None	no · · · · · · · · · · · · · · · · · · ·
Cooler Temperature Observed Temp	3.5	_ °C	Co	rrection Factor <u>: 🔘 :</u>	。 °C Final Temp: 3,5 °C
Temp should be above freezing to 6°C					Date and initials of person examinin
Remmental	Ye	s l No) N/	A	contents: 24 7/14/17
Comments:	17	7		1.	
Chain of Custody Present:			 	2.	
Chain of Custody Filled Oul:	1	1	+	3.	
Chain of Custody Relinquished:	1	17	+	4.	
Sampler Name & Signature on COC:	1	 		5.	
Sample Labels malch COC:Includes date/lime/ID Matrix:	1~1		<u> </u>	7	·
RIOZGGOO GGROTIATION	i/	Τ	T	6.	
Samples Arrived within Hold Time:	17	 	1-	7.	
Short Hold Time Analysis (<72hr remaining):		7	 	8.	
tush Turn Around Time Requested:	1		\top	9.	
ufficient Volume:	17			10.	
correct Containers Used:	-	1			
-Pace Conialners Used:	1/	<u> </u>		11.	
ontainers Intact:	+			12,	
nhophosphate field filtered	1-			13.	
rganic Samples checked for dechlorination:	+		1	14.	
llered volume received for Dissolved jests containers have been checked for preservation.	1			15.	
containers needing preservation are found to be in	1			10,	
mpliance with EPA recommendation.				Initial when ZH	Date/lime of preservation
ceptions: VOA, coliform, TOC, O&G, Phenolics				Lot # of added	
adspace in VOA Vials (>6mm):			1	16.	
p Blank Present:			1	17.	
o Blank Custody Seals Present		$\neg \uparrow$	/		
d Aqueous Samples Screened > 0.5 mrem/hr		1		Initial when completed: 74	Date: 7/11/17
ent Notification/ Resolution:					
Person Contacted:			Da(e/T	ime:	Contacted By:
omments/ Resolution:					
A check in this box indicates that additi					
: Whenever there is a discrepancy affecting North Cardification Office (i.e. out of hold, incorrect preservative, o	olina com	pliance	samp	les, a copy of this form wil	

J:\QAQC\Master\Document Management\Sample Mgt\Sample Condition Upon Receipt Pittsburgh (C056-5 5July2017)





August 07, 2017

Ron Bayer EnviroTest Laboratories Inc. 315 Fullerton Avenue Newburgh, NY 12550

RE: Project: LBG,Inc 42001269

Pace Project No.: 35324052

Dear Ron Bayer:

Enclosed are the analytical results for sample(s) received by the laboratory on July 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

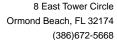
Sincerely,

Bo Garcia bo.garcia@pacelabs.com (386)672-5668 Project Manager

Enclosures

cc: Debra Bayer, EnviroTest Laboratories Inc. Renee Cusack, EnviroTest Laboratories Inc. Laura Marciano, EnviroTest Laboratories Inc. Janine Rader, EnviroTest Laboratories Inc. Meredith Ruthven, EnviroTest Laboratories Inc.







CERTIFICATIONS

Project: LBG,Inc 42001269

Pace Project No.: 35324052

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174

Alabama Certification #: 41320 Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

Florida Certification #: E83079 Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Louisiana Certification #: FL NELAC Reciprocity Louisiana Environmental Certificate #: 05007

Maryland Certification: #346 Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236 Montana Certification #: Cert 0074 Nebraska Certification: NE-OS-28-14

Nevada Certification: FL NELAC Reciprocity

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity Virginia Environmental Certification #: 460165

Wyoming Certification: FL NELAC Reciprocity

West Virginia Certification #: 9962C Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

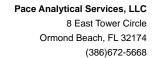
Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158 Pennsylvania Certification #: 68-00350 Connecticut Certification #: PH-0435 Maryland Certification #: 208

Rhode Island Certification #: LAO00340 Massachusetts Certification #: M-NY026 New Hampshire Certification #: 2987





SAMPLE SUMMARY

Project: LBG,Inc 42001269

Pace Project No.: 35324052

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35324052001	C-6	Drinking Water	07/13/17 09:50	07/14/17 11:10



SAMPLE ANALYTE COUNT

Project: LBG,Inc 42001269

Pace Project No.: 35324052

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35324052001	C-6	EPA 504.1	 BP1	2	PASI-O
		EPA 505	MMR	3	
		EPA 508.1	NS1	18	PASI-O
		EPA 515.3	LJM	8	PASI-O
		EPA 531.1	WFH	9	PASI-O
		EPA 547	NMB	1	PASI-O
		EPA 549.2	NMB	1	PASI-O
		EPA 525.2	NS1	7	PASI-O
		EPA 548.1	JDT	1	PASI-O



ANALYTICAL RESULTS

Project: LBG,Inc 42001269

Pace Project No.: 35324052

Date: 08/07/2017 12:26 PM

Sample: C-6	Lab ID:	35324052001	Collecte	d: 07/13/1	7 09:50	Received: 07/	14/17 11:10 Ma	atrix: Drinking	Water
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504.1 GCS EDB and DBCP	Analytical	Method: EPA 5	04.1 Prepa	aration Metl	nod: EP	A 504.1			
1,2-Dibromo-3-chloropropane 1,2-Dibromoethane (EDB)	<0.0060 <0.0071	ug/L ug/L	0.019 0.0094	0.0060 0.0071	1 1	07/16/17 14:45 07/16/17 14:45	07/17/17 02:23 07/17/17 02:23		
505 GCS Pesticides/PCBs		Method: EPA 5							
Aldrin	<0.025	ug/L	0.025	0.025	1	07/20/17 16:38	07/21/17 00:08	309-00-2	
Surrogates		-							
Tetrachloro-m-xylene (S)	95	%.	30-150		1	07/20/17 16:38	07/21/17 00:08	877-09-8	
Decachlorobiphenyl (S)	70	%.	30-150		1	07/20/17 16:38	07/21/17 00:08	2051-24-3	
508.1 GCS Pesticides	Analytical	Method: EPA 5	08.1 Prepa	aration Metl	nod: EP	A 508.1			
Alachlor	<0.038	ug/L	0.22	0.038	1	07/21/17 15:45	07/28/17 03:24	15972-60-8	
Atrazine	<0.068	ug/L	0.11	0.068	1	07/21/17 15:45	07/28/17 03:24	1912-24-9	
gamma-BHC (Lindane)	< 0.0032	ug/L	0.022	0.0032	1	07/21/17 15:45	07/28/17 03:24	58-89-9	
Butachlor	<0.029	ug/L	0.11	0.029	1	07/21/17 15:45		23184-66-9	
Chlordane (Technical)	<0.051	ug/L	0.22	0.051	1	07/21/17 15:45			
Dieldrin	<0.021	ug/L	0.11	0.021	1	07/21/17 15:45			
Endrin	<0.0076	ug/L	0.011	0.0076	1	07/21/17 15:45	07/28/17 03:24	72-20-8	
Heptachlor	<0.013	ug/L	0.043	0.013	1	07/21/17 15:45	07/28/17 03:24	76-44-8	
Heptachlor epoxide	< 0.0032	ug/L	0.022	0.0032	1	07/21/17 15:45	07/28/17 03:24	1024-57-3	
Hexachlorobenzene	<0.021	ug/L	0.11	0.021	1	07/21/17 15:45	07/28/17 03:24	118-74-1	
Hexachlorocyclopentadiene	<0.035	ug/L	0.11	0.035	1	07/21/17 15:45	07/28/17 03:24	77-47-4	
Methoxychlor	<0.055	ug/L	0.11	0.055	1	07/21/17 15:45	07/28/17 03:24	72-43-5	
Metolachlor	<0.051	ug/L	0.11	0.051	1	07/21/17 15:45	07/28/17 03:24	51218-45-2	
PCB, Total	<0.086	ug/L	0.11	0.086	1	07/21/17 15:45	07/28/17 03:24	1336-36-3	
Propachlor	<0.032	ug/L	0.11	0.032	1	07/21/17 15:45	07/28/17 03:24	1918-16-7	
Simazine	<0.075	ug/L	0.076	0.075	1	07/21/17 15:45	07/28/17 03:24	122-34-9	
Toxaphene	<0.66	ug/L	1.1	0.66	1	07/21/17 15:45	07/28/17 03:24	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	88	%	70-130		1	07/21/17 15:45	07/28/17 03:24	2051-24-3	
515.3 Chlorinated Herbicides	Analytical	Method: EPA 5	15.3 Prepa	aration Metl	nod: EP	A 515.3			
2,4-D	<0.081	ug/L	0.10	0.081	1	07/20/17 09:35	07/22/17 06:39	94-75-7	
Dalapon	<0.89	ug/L	1.0	0.89	1	07/20/17 09:35	07/22/17 06:39	75-99-0	
Dicamba	<0.067	ug/L	0.10	0.067	1	07/20/17 09:35	07/22/17 06:39	1918-00-9	L1
Dinoseb	<0.16	ug/L	0.20	0.16	1	07/20/17 09:35	07/22/17 06:39	88-85-7	
Pentachlorophenol	< 0.030	ug/L	0.040	0.030	1	07/20/17 09:35	07/22/17 06:39	87-86-5	
Picloram	<0.094	ug/L	0.10	0.094	1		07/22/17 06:39		
2,4,5-TP (Silvex)	<0.16	ug/L	0.20	0.16	1	07/20/17 09:35	07/22/17 06:39	93-72-1	
Surrogates		-							
2,4-DCAA (S)	92	%	70-130		1	07/20/17 09:35	07/22/17 06:39	19719-28-9	
531.1 HPLC Carbamates	Analytical	Method: EPA 5	31.1						
Aldicarb	<0.64	ug/L	2.0	0.64	1		07/18/17 15:48	116-06-3	
Aldicarb sulfone	<0.37	ug/L	2.0	0.37	1		07/18/17 15:48	1646-88-4	
Aldicarb sulfoxide	<0.59	ug/L	2.0	0.59	1		07/18/17 15:48	1646-87-3	
Carbofuran	<0.32	ug/L	2.0	0.32	1		07/18/17 15:48	1563-66-2	



ANALYTICAL RESULTS

Project: LBG,Inc 42001269

Pace Project No.: 35324052

Date: 08/07/2017 12:26 PM

Sample: C-6	Lab ID:	35324052001	Collected	d: 07/13/17	09:50	Received: 07/	14/17 11:10 Ma	atrix: Drinking	Water
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
531.1 HPLC Carbamates	Analytical	Method: EPA 5	31.1						
3-Hydroxycarbofuran	<0.45	ug/L	2.0	0.45	1		07/18/17 15:48	16655-82-6	
Methomyl	<0.57	ug/L	2.0	0.57	1		07/18/17 15:48	16752-77-5	
Oxamyl	<0.55	ug/L	2.0	0.55	1		07/18/17 15:48	23135-22-0	
Carbaryl	<0.27	ug/L	2.0	0.27	1		07/18/17 15:48	63-25-2	
Surrogates									
BDMC (S)	102	%	80-120		1		07/18/17 15:48		
547 HPLC Glyphosate	Analytical	Method: EPA 5	47						
Glyphosate	<4.2	ug/L	6.0	4.2	1		07/20/17 04:41		
549.2 HPLC Paraquat Diquat	Analytical	Method: EPA 5	49.2 Prepa	aration Meth	od: EP	A 549.2			
Diquat	<0.30	ug/L	0.40	0.30	1	07/18/17 10:40	07/19/17 17:39	85-00-7	
525.2 Base Neutral Extractable	Analytical	Method: EPA 5	25.2 Prepa	aration Meth	od: EP	A 525.2			
Benzo(a)pyrene	<0.012	ug/L	0.096	0.012	1	07/25/17 10:30	07/26/17 14:20	50-32-8	L2
bis(2-Ethylhexyl)adipate	<0.37	ug/L	1.5	0.37	1	07/25/17 10:30	07/26/17 14:20	103-23-1	
bis(2-Ethylhexyl)phthalate	<0.48	ug/L	1.9	0.48	1	07/25/17 10:30	07/26/17 14:20	117-81-7	
Metribuzin	<0.14	ug/L	0.29	0.14	1	07/25/17 10:30	07/26/17 14:20	21087-64-9	
Surrogates									
1,3-Dimethyl-2-nitrobenzene(S)	116	%	70-130		1	07/25/17 10:30	07/26/17 14:20		
Perylene-d12 (S)	84	%	70-130		1	07/25/17 10:30	07/26/17 14:20		
Triphenylphosphate (S)	93	%	70-130		1	07/25/17 10:30	07/26/17 14:20	115-86-6	
548.1 GCS Endothall	Analytical	Method: EPA 5	48.1 Prepa	aration Meth	od: EP	A 548.1			
Endothall	<4.3	ug/L	9.0	4.3	1	07/19/17 17:00	07/24/17 23:24		L2,L5



Project: LBG,Inc 42001269

Pace Project No.: 35324052

Date: 08/07/2017 12:26 PM

QC Batch: 381535 Analysis Method: EPA 531.1

QC Batch Method: EPA 531.1 Analysis Description: 531.1 HPLC Carbamate

Associated Lab Samples: 35324052001

METHOD BLANK: 2070180 Matrix: Water

Associated Lab Samples: 35324052001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
3-Hydroxycarbofuran	ug/L	<0.45	2.0	0.45	07/18/17 12:36	
Aldicarb	ug/L	< 0.64	2.0	0.64	07/18/17 12:36	
Aldicarb sulfone	ug/L	< 0.37	2.0	0.37	07/18/17 12:36	
Aldicarb sulfoxide	ug/L	< 0.59	2.0	0.59	07/18/17 12:36	
Carbaryl	ug/L	<0.27	2.0	0.27	07/18/17 12:36	
Carbofuran	ug/L	< 0.32	2.0	0.32	07/18/17 12:36	
Methomyl	ug/L	< 0.57	2.0	0.57	07/18/17 12:36	
Oxamyl	ug/L	<0.55	2.0	0.55	07/18/17 12:36	
BDMC (S)	%	120	80-120		07/18/17 12:36	

LABORATORY CONTROL SAMPLE:	2070181					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
3-Hydroxycarbofuran	ug/L	10	10.3	103	80-120	
Aldicarb	ug/L	10	11.2	112	80-120	
Aldicarb sulfone	ug/L	10	10.9	109	80-120	
Aldicarb sulfoxide	ug/L	10	12.0	120	80-120	
Carbaryl	ug/L	10	12.0	120	80-120	
Carbofuran	ug/L	10	11.7	117	80-120	
Methomyl	ug/L	10	10.6	106	80-120	
Oxamyl	ug/L	10	11.8	118	80-120	
BDMC (S)	%			118	80-120	

MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	TE: 207018	32		2070183							
			MS	MSD					_			
	3:	5323850001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
3-Hydroxycarbofuran	ug/L	0.45U	10	10	10	10.2	100	102	80-120	2	20	
Aldicarb	ug/L	0.64U	10	10	10.5	10.3	105	103	80-120	3	20	
Aldicarb sulfone	ug/L	0.37U	10	10	9.5	9.8	95	98	80-120	4	20	
Aldicarb sulfoxide	ug/L	0.59U	10	10	11.2	11.0	112	110	80-120	2	20	
Carbaryl	ug/L	0.27U	10	10	12.0	11.5	120	115	80-120	4	20	
Carbofuran	ug/L	0.32U	10	10	11.3	10.5	113	105	80-120	7	20	
Methomyl	ug/L	0.57U	10	10	10.5	11.1	105	111	80-120	6	20	
Oxamyl	ug/L	0.55U	10	10	10.2	10.0	102	100	80-120	2	20	
BDMC (S)	%						103	98	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



LBG,Inc 42001269 Project:

Pace Project No.: 35324052

QC Batch: 382091

Analysis Method: Analysis Description: EPA 547

QC Batch Method: **EPA 547**

35324052001

547 HPLC Glyphosate

Matrix: Water

Associated Lab Samples:

Date: 08/07/2017 12:26 PM

METHOD BLANK:

Associated Lab Samples:

35324052001

Blank Reporting

Limit MDL Parameter Units Result Qualifiers Analyzed

Glyphosate <4.2 6.0 4.2 07/20/17 02:06 ug/L

LABORATORY CONTROL SAMPLE: 2073234

2073233

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Glyphosate ug/L 50 52.3 105 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2073236 2073235

MS MSD MS 35324897001 Spike Spike MS MSD MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual 0.0042U 50 50 48.2 80-120 0 30 Glyphosate ug/L 48.4 96 97 mg/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2073237 2073238

MS MSD 35324066001 Spike Spike MS MSD MS MSD % Rec Max % Rec RPD RPD Units Result Conc. Qual Parameter Conc. Result Result % Rec Limits Glyphosate <4.2 50 50 51.2 49.9 102 80-120 3 30 ug/L 100

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:

LBG,Inc 42001269

Pace Project No.:

35324052

QC Batch:

381135

QC Batch Method:

EPA 504.1

Analysis Method:

EPA 504.1

Analysis Description:

504 EDB DBCP

Associated Lab Samples: 35324052001

METHOD BLANK: 2067594

Matrix: Water

Associated Lab Samples:

Parameter

Parameter

35324052001

Blank

Reporting

Result

Limit

MDL

Analyzed

Qualifiers

1,2-Dibromo-3-chloropropane 1,2-Dibromoethane (EDB)

ug/L ug/L

Units

< 0.0064 < 0.0075

.25

0.020 0.010

0.26

0.24

0.0064 0.0075

LCSD

07/16/17 20:27 07/16/17 20:27

LABORATORY CONTROL SAMPLE & LCSD: 2067595 2068674 Spike LCS

LCSD Conc. Result Result .25 0.24

% Rec Limits 104 70-130

Max **RPD RPD**

1,2-Dibromo-3-chloropropane 1,2-Dibromoethane (EDB)

Date: 08/07/2017 12:26 PM

ug/L ug/L

Units

0.22

98 88 94 6

40

LCS

% Rec

% Rec

70-130

6

40

Qualifiers

MATRIX SPIKE & MATRIX SP	IKE DUPLICA	ATE: 20686	75		2068676							
	3	5323705002	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,2-Dibromo-3- chloropropane	ug/L	0.0061U	.44	.44	0.63	0.65	144	149	65-135	3	40	M1
1,2-Dibromoethane (EDB)	ug/L	0.0072U	.44	.44	0.61	0.58	139	132	65-135	6	40	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324052

QC Batch: 32255

QC Batch Method:

EPA 505

LABORATORY CONTROL SAMPLE

Analysis Method:

EPA 505

Analysis Description:

505 GCS Pesticides

Associated Lab Samples: 35324052001

METHOD BLANK: 149103

Matrix: Water

Associated Lab Samples:

Date: 08/07/2017 12:26 PM

35324052001

149104

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aldrin	ug/L	<0.025	0.025	0.025	07/20/17 18:40	
Decachlorobiphenyl (S)	%.	75	30-150		07/20/17 18:40	
Tetrachloro-m-xylene (S)	%.	85	30-150		07/20/17 18:40	

LABORATORT CONTROL GAMILEE.	143104	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	.048	0.047	98	70-130	
Decachlorobiphenyl (S)	%.			95	30-150	
Tetrachloro-m-xvlene (S)	%.			94	30-150	

LABORATORY CONTROL SAMPLE:	149105					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	.0095	<0.025	97	70-130	
Decachlorobiphenyl (S)	%.			89	30-150	
Tetrachloro-m-xylene (S)	%.			95	30-150	

MATRIX SPIKE SAMPLE:	149106						
		7024421001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	<0.025	.095	0.092	96	65-135	
Decachlorobiphenyl (S)	%.				75	30-150	
Tetrachloro-m-xylene (S)	%.				97	30-150	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324052

Date: 08/07/2017 12:26 PM

QC Batch: 382070 Analysis Method: EPA 508.1

QC Batch Method: EPA 508.1 Analysis Description: 508 GCS Pesticide

Associated Lab Samples: 35324052001

METHOD BLANK: 2073167 Matrix: Water

Associated Lab Samples: 35324052001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Alachlor	ug/L	<0.035	0.20	0.035	07/26/17 10:06	
Atrazine	ug/L	< 0.063	0.10	0.063	07/26/17 10:06	
Butachlor	ug/L	< 0.027	0.10	0.027	07/26/17 10:06	
Chlordane (Technical)	ug/L	< 0.047	0.20	0.047	07/26/17 10:06	
Dieldrin	ug/L	< 0.019	0.10	0.019	07/26/17 10:06	
Endrin	ug/L	< 0.0070	0.010	0.0070	07/26/17 10:06	
gamma-BHC (Lindane)	ug/L	< 0.0030	0.020	0.0030	07/26/17 10:06	
Heptachlor	ug/L	< 0.012	0.040	0.012	07/26/17 10:06	
Heptachlor epoxide	ug/L	< 0.0030	0.020	0.0030	07/26/17 10:06	
Hexachlorobenzene	ug/L	< 0.019	0.10	0.019	07/26/17 10:06	
Hexachlorocyclopentadiene	ug/L	< 0.032	0.10	0.032	07/26/17 10:06	
Methoxychlor	ug/L	< 0.051	0.10	0.051	07/26/17 10:06	
Metolachlor	ug/L	< 0.047	0.10	0.047	07/26/17 10:06	
Propachlor	ug/L	< 0.030	0.10	0.030	07/26/17 10:06	
Simazine	ug/L	< 0.069	0.070	0.069	07/26/17 10:06	
Toxaphene	ug/L	<0.61	1.0	0.61	07/26/17 10:06	
Decachlorobiphenyl (S)	%	103	70-130		07/26/17 10:06	

LABORATORY CONTROL SAMPLE:	2073168					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Alachlor	ug/L		1.0	100	70-130	
Atrazine	ug/L	1.2	1.2	97	70-130	
Butachlor	ug/L	.5	0.48	96	70-130	
Dieldrin	ug/L	.5	0.51	103	70-130	
Endrin	ug/L	.05	0.053	106	70-130	
gamma-BHC (Lindane)	ug/L	.1	0.10	102	70-130	
Heptachlor	ug/L	.2	0.18	91	70-130	
Heptachlor epoxide	ug/L	.1	0.10	100	70-130	
Hexachlorobenzene	ug/L	.5	0.46	92	70-130	
Hexachlorocyclopentadiene	ug/L	.5	0.47	94	70-130	
Methoxychlor	ug/L	.5	0.53	107	70-130	
Metolachlor	ug/L	.5	0.48	96	70-130	
Propachlor	ug/L	.5	0.48	96	70-130	
Simazine	ug/L	.88	0.78	89	70-130	
Decachlorobiphenyl (S)	%			105	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324052

Date: 08/07/2017 12:26 PM

MATRIX SPIKE & MATRIX SPII	KE DUPLICA	TE: 20749	71		2074972							
			MS	MSD								
	3	5323850001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
Alachlor	ug/L	0.034U	2	2	2.0	1.9	100	97	65-135	3	40	
Atrazine	ug/L	0.061U	2.5	2.5	2.6	3.1	102	123	65-135	19	40	
Butachlor	ug/L	0.026U	1	1	0.93	0.89	93	89	65-135	4	40	
Chlordane (Technical)	ug/L	0.045U			< 0.094	< 0.094					40	
Dieldrin	ug/L	0.018U	1	1	1.0	1.0	104	104	65-135	0	40	
Endrin	ug/L	0.0067U	.1	.1	0.11	0.11	107	107	65-135	0	40	
gamma-BHC (Lindane)	ug/L	0.0029U	.2	.2	0.22	0.22	110	111	65-135	1	40	
Heptachlor	ug/L	0.012U	.4	.4	0.70	0.81	174	201	65-135	14	40	M1
Heptachlor epoxide	ug/L	0.0029U	.2	.2	0.21	0.21	104	103	65-135	0	40	
Hexachlorobenzene	ug/L	0.018U	1	1	1.0	1.1	102	111	65-135	8	40	
Hexachlorocyclopentadiene	ug/L	0.031U	1	1	1.2	1.0	116	105	65-135	10	40	
Methoxychlor	ug/L	0.049U	1	1	1.0	0.97	101	97	65-135	4	40	
Metolachlor	ug/L	0.045U	1	1	0.95	0.95	95	95	65-135	0	40	
Propachlor	ug/L	0.029U	1	1	1.0	1.2	103	123	65-135	17	40	
Simazine	ug/L	0.066U	1.8	1.8	0.62	0.68	36	39	65-135	9	40	M1
Toxaphene	ug/L	0.58U			<1.2	<1.2					40	
Decachlorobiphenyl (S)	%						94	94	70-130		40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324052

Date: 08/07/2017 12:26 PM

QC Batch: 382064 Analysis Method: EPA 515.3

QC Batch Method: EPA 515.3 Analysis Description: 5153 GCS Herbicides

Associated Lab Samples: 35324052001

METHOD BLANK: 2073155 Matrix: Water

Associated Lab Samples: 35324052001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
2,4,5-TP (Silvex)	ug/L	<0.16	0.20	0.16	07/22/17 00:29	
2,4-D	ug/L	< 0.081	0.10	0.081	07/22/17 00:29	
Dalapon	ug/L	< 0.89	1.0	0.89	07/22/17 00:29	
Dicamba	ug/L	< 0.067	0.10	0.067	07/22/17 00:29	
Dinoseb	ug/L	<0.16	0.20	0.16	07/22/17 00:29	
Pentachlorophenol	ug/L	< 0.030	0.040	0.030	07/22/17 00:29	
Picloram	ug/L	< 0.094	0.10	0.094	07/22/17 00:29	
2,4-DCAA (S)	%	88	70-130		07/22/17 00:29	

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
2,4,5-TP (Silvex)	ug/L		1.0	103	70-130	
2,4-D	ug/L	.5	0.39	78	70-130	
Dalapon	ug/L	5	4.5	90	70-130	
Dicamba	ug/L	.5	0.66	132	70-130 L	.1
Dinoseb	ug/L	1	1.1	114	70-130	
Pentachlorophenol	ug/L	.2	0.20	98	70-130	
Picloram	ug/L	.5	0.50	99	70-130	
2,4-DCAA (S)	%			93	70-130	

MATRIX SPIKE & MATRIX S	PIKE DUPLICA	TE: 20734	78		2073479							
			MS	MSD								
	9	2347613003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
2,4,5-TP (Silvex)	ug/L	ND	1	1	1.1	1.1	108	111	70-130	3	40	
2,4-D	ug/L	ND	.5	.5	0.42	0.47	84	94	70-130	11	40	
Dalapon	ug/L	ND	5	5	5.7	6.0	115	120	70-130	5	40	
Dicamba	ug/L	ND	.5	.5	0.58	0.63	117	126	70-130	7	40	
Dinoseb	ug/L	ND	1	1	1.1	1.1	105	113	70-130	7	40	
Pentachlorophenol	ug/L	ND	.2	.2	0.18	0.19	91	95	70-130	4	40	
Picloram	ug/L	ND	.5	.5	0.65	0.70	130	140	70-130	7	40 I	M1
2,4-DCAA (S)	%						98	99	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324052

Date: 08/07/2017 12:26 PM

MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	TE: 20734	80		2073481							
	3	5323949005	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
2,4,5-TP (Silvex)	ug/L	<0.16	1	1	1.1	1.1	108	110	70-130	1	40	
2,4-D	ug/L	<0.081	.5	.5	0.40	0.41	79	82	70-130	3	40	
Dalapon	ug/L	< 0.89	5	5	4.7	4.8	94	95	70-130	1	40	
Dicamba	ug/L	< 0.067	.5	.5	0.51	0.63	103	127	70-130	21	40	
Dinoseb	ug/L	<0.16	1	1	1.1	1.1	110	111	70-130	1	40	
Pentachlorophenol	ug/L	< 0.030	.2	.2	0.19	0.19	96	97	70-130	1	40	
Picloram	ug/L	< 0.094	.5	.5	0.55	0.57	110	115	70-130	5	40	
2,4-DCAA (S)	%						95	93	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324052

Date: 08/07/2017 12:26 PM

QC Batch: 382937 Analysis Method: EPA 525.2

QC Batch Method: EPA 525.2 Analysis Description: 525.2 Base Neutral Extractables

Associated Lab Samples: 35324052001

METHOD BLANK: 2078153 Matrix: Water

Associated Lab Samples: 35324052001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Benzo(a)pyrene	ug/L	<0.013	0.10	0.013	07/26/17 11:53	
bis(2-Ethylhexyl)adipate	ug/L	<0.38	1.6	0.38	07/26/17 11:53	
bis(2-Ethylhexyl)phthalate	ug/L	< 0.50	2.0	0.50	07/26/17 11:53	
Metribuzin	ug/L	<0.15	0.30	0.15	07/26/17 11:53	
1,3-Dimethyl-2-nitrobenzene(S)	%	105	70-130		07/26/17 11:53	
Perylene-d12 (S)	%	84	70-130		07/26/17 11:53	
Triphenylphosphate (S)	%	83	70-130		07/26/17 11:53	

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
nzo(a)pyrene	ug/L		0.26	65	70-130	L2
2-Ethylhexyl)adipate	ug/L	6.4	5.4	84	70-130	
-Ethylhexyl)phthalate	ug/L	8	6.8	85	70-130	
buzin	ug/L	1.2	1.2	103	70-130	
imethyl-2-nitrobenzene(S)	%			106	70-130	
ene-d12 (S)	%			75	70-130	
enylphosphate (S)	%			83	70-130	

MATRIX SPIKE & MATRIX SP	IKE DUPLICA	TE: 20784	76		2078477							
			MS	MSD								
	9:	2348121001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Benzo(a)pyrene	ug/L				0.092J	0.098J					40	MO
bis(2-Ethylhexyl)adipate	ug/L				10.9	10.3				6	40	
bis(2-Ethylhexyl)phthalate	ug/L				14.0	13.5				3	40	
Metribuzin	ug/L				2.2	< 0.30					40	M1
1,3-Dimethyl-2- nitrobenzene(S)	%						110	120	70-130			
Perylene-d12 (S)	%						64	62	70-130			S0,S8
Triphenylphosphate (S)	%						83	84	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:

LBG,Inc 42001269

Pace Project No.:

35324052

QC Batch:

381974

QC Batch Method:

EPA 548.1

Analysis Method:

EPA 548.1

Analysis Description:

548 GCS Endothall

MDL

79

Associated Lab Samples: 35324052001

METHOD BLANK: 2072291

Matrix: Water

Associated Lab Samples:

35324052001

Blank

Reporting

Parameter

Units ug/L

Result <4.3 Limit 9.0

Analyzed 07/24/17 19:29 Qualifiers

LABORATORY CONTROL SAMPLE:

Parameter

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

2072292

Spike Conc.

LCS Result

LCS % Rec % Rec Limits

80-120

Qualifiers

Endothall

Endothall

ug/L

Units

2072347

2072348

39.6

4.3

89

Max

Endothall

35324386001 Parameter Units Result

ug/L

Units

ug/L

MS MSD Spike Spike Conc. Conc.

50

50

MS MSD Result Result 50 45.0

MS MSD % Rec % Rec 90

% Rec Limits 80-120

RPD RPD

Qual

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

2072358

4.3U

35324386002

Result

4.3U

2072359

44.4

30

MS

MSD

MS

50

MSD MS

MSD % Rec % Rec Limits RPD

Max RPD Qual

Endothall

Parameter

Spike Conc.

50

Spike Conc.

Result Result 34.3

% Rec 41.0

69 82 80-120

18

30 M0

Date: 08/07/2017 12:26 PM

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REPORT OF LABORATORY ANALYSIS

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Project: LBG,Inc 42001269

Pace Project No.: 35324052

Date: 08/07/2017 12:26 PM

QC Batch: 381247

QC Batch Method: EPA 549.2

Analysis Method: EPA 549.2

Analysis Description: 549 HPLC Paraquat Diquat

Associated Lab Samples: 35324052001

METHOD BLANK: 2068888 Matrix: Water

Associated Lab Samples: 35324052001

Blank Reporting
Parameter Units Result Limit MDL Analyzed Qualifiers

Diquat ug/L <0.30 0.40 0.30 07/19/17 13:34

LABORATORY CONTROL SAMPLE: 2068889

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Diquat ug/L 2 1.6 80 70-130

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2070241 2070242

MS MSD MS 35323937005 Spike Spike MS MSD MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual Diquat 2 2 1.5 1.6 77 70-130 6 30 ug/L < 0.30 82

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2070243 2070244

MS MSD 35323949005 MS MSD MS MSD Spike Spike % Rec Max Parameter % Rec RPD Units Result Conc. Conc. Result Result % Rec Limits RPD Qual 2 2 1.7 Diquat ug/L < 0.30 1.6 85 82 70-130 4 30

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: LBG,Inc 42001269

Pace Project No.: 35324052

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

S8

Date: 08/07/2017 12:26 PM

PASI-O Pace Analytical Services - Ormond Beach

re-extraction and/or re-analysis)

ANALYTE QUALIFIERS

L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
L5	LCS recovery exceeded QC limits. Batch accepted based on matrix spike recovery within LCS limits.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S0	Surrogate recovery outside laboratory control limits.

REPORT OF LABORATORY ANALYSIS

Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LBG,Inc 42001269

Pace Project No.: 35324052

Date: 08/07/2017 12:26 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35324052001	C-6	EPA 504.1	381135	EPA 504.1	381255
35324052001	C-6	EPA 505	32255	EPA 505	32334
35324052001	C-6	EPA 508.1	382070	EPA 508.1	382791
35324052001	C-6	EPA 515.3	382064	EPA 515.3	382572
35324052001	C-6	EPA 531.1	381535		
35324052001	C-6	EPA 547	382091		
35324052001	C-6	EPA 549.2	381247	EPA 549.2	381830
35324052001	C-6	EPA 525.2	382937	EPA 525.2	383335
35324052001	C-6	EPA 548.1	381974	EPA 548.1	382933

EnviroTest Laboratories, Inc. 315 Fullerton Avenue Newburgh, NY 12550 Phone (845) 562-0890 Fax (845) 562-0841

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Custody Record

EnviroTest Laboratories Inc.

2

Client Information (Sub Contract Lab)	35324052		~ 1	epra							420-9122.1	
Client Contact: Shipping/Receiving			dbayer@	dbayer@envirotestlaboratories.com	aborator	ies.com					Page: Page 1 of 1	
Company: Pace Analytical Ormond Beach						Analysis		Requested		1	STL Job #: 420-123595-1	ī
Address: 8 Bast Tower Circle	Due Date Requested: 7/25/2017			VER	W						Preservation Codes	1 Codes:
Gily: Officer of the control of the	TAT Requested (days):				_	er.					B - NaOH	
State, Zip: FL, 32174	15F 855	7/2/17	Ŋ	7.71.75.4		onganic				150	D - Nitric Acid E - NaHSO4	P - Na204S Q - Na2SO3
Phone: 111-222-3333(Tel)	PO#;		(0) allie					F - MeOH G - Amchlor H - Ascorbic Acid	
Email:	:#OM			orinate	-	IOAUU					7-11	
Project Name: LBG, Inc.	Project #: 42001269			е сич	_	81				o a joya	K-EDTA L-EDA	W - ph 4-5 Z - other (specify)
Site:	::SOW#:			ra /TC		09 /13	1000				Other	
Sample Identification Client ID (Lab ID)	Sample Date Time	Sample Type (C=comp, G=grab)	Matrix (wwater, Seolid, Owasteloll, Owasteloll, Defendance of the parties of the	MSM moher SUBCONTRAC	SUBCONTRAC	одятиораца раятиораца	одятиораца рамтиораца	о аятио за и за		and mile late.	Total Number	Special Instructions/Note:
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C - 6 (420-123595-1)	7/13/17 9:50		Water	×	×	×	×	×		20.52	13	
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										N/NETT	RUS	
										312030	0.70	
						5				Series St.	P 19 10	
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Possible Hazard Identification Skin Irritant	☐ Poison B ☐ Unknown ☐	Radiological	-	ample Dis	le Disposal (At Return To Client	A fee m	ay be a	assessed if sam Disposal By Lab	f samples Lab	are reta	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Archive For Mon	nan 1 month) Months
0			()	Special Instructions/QC Requirements:	ructions	/QC Rec	luiremen	ts:				
Empty Kit Relinquished by:	Date:		Time:	to:				Method	Method of Shipment:			
Relinguished by:	b) 2/18/1/100	Oh.	Company	Received by:	Set by:	MU			Date/Time:	F117	1110	Company 10.4
Seninguished by:	Date/I ime:	E .	Company	Received by:	ý:				Date/Time	.;		Company
বস্তুদিquished by: O	Date/Time:	Com	Company	Received by:	by:				Date/Time:	.; (e)		Company
Sustody Seals Intact: Custody Seal No.:				Cooler Te	mperature	Cooler Temperature(s) °C and Other Remarks:	Other Ren	arks:				
200												



Document Name: Sample Condition Upon Receipt Form Document No.: F-FL-C-007 rev. 11

Document Revised: February 6, 2017
Issuing Authority:
Pace Florida Quality Office

(SCUR)

Project # **Project Manager:** Sample Condition Upon Receipt For

PM: VEG

Due Date: 07/28/17

CLIENT: EVNTES

Date and Initials of person: Examining contents: Label: Deliver:

5.				
Thermometer Used:	Date:	FILMIE	Time:	10 Initials:
	101	on Factor) (1)	(Actual)	Samples on ice, cooling process has begun
oler #1 Temp.°C(Visual)		on Factor) 10	(Actual)	Samples on ice, cooling process has begun
oler #2 Temp.°C 10.3 (Visual)		on Factor) 6	(Actual)	Samples on ice, cooling process has begu
oler #3 Temp.°C <u> </u>				Samples on ice, cooling process has begu
oler #4 Temp.°C(Visual)	V	on Factor)		Samples on ice, cooling process has begu
oler #5 Temp.°C(Visual)		on Factor)		Samples on ice, cooling process has begu
oler #6 Temp.°C(Visual)	(Correcti	on Factor)	(Aotaar)	
urier: Fed Ex UF	os Dusps D		nercial 🗌 Pace ernight 🗀 Ground	Other
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ling: Recipient	□ Sender □	back of		5/7796 2608 5178
acking # 796 26	10 4340	1446 90	09 310	
stody Seal on Cooler/Box Present	t: Yes No	Seals inta	ct: Yes No	Ice: Wet Blue None
cking Material: Bubble Wrap	E Bassie == 5		7	ted Time: Qty:
imples shorted to lab (If Yes, com	plete) Shorte	ed Date:	Shor	ted Time: Qty:
		Co	mments:	
nain of Custody Present	⊠Yes	□ No □N/A		
hain of Custody Filled Out	√Yes	S □ No □N/A		
elinquished Signature & Sampler Na	me COC DYes	s □ No □N/A		
amples Arrived within Hold Time	₽Ÿes	s □ No □N/A		
ush TAT requested on COC	□Yes	s ⊠No □N/A		
ufficient Volume	ØÝe	s □ No □N/A		
orrect Containers Used	∠ZYe	s □ No □N/A		
Containers Intact	⊠Ýe	s □ No □N/A		
ample Labels match COC (sample IDs &	date/time of	s □ No □N/A		
ollection) Il containers needing acid/base preserva	ition have been	s 🗆 No 🗆 N/A	Preserval	Preservation Information:
hecked. Il Containers needing preservation are fo	ound to be in		Lot #/Trac	o #·
ompliance with EPA recommendation:	Ļne		Date: Initials:	Time:
	orm, TOC, O&G, Carbamate			
Headspace in VOA Vials? (>6mm):	□Ye	es □ No ☑N/A		
Frip Blank Present:		es LINO EINIT		
Client Notification/ Resolution: Person Contacted:			Date/Time:	
Comments/ Resolution (use back	for additional commen	ts):		
Comments/ Resolution (use back	o Run oc	T De		
Olecca 1		4	1	



Pace Analytical Services, Inc.

1700 Elm Street Minneapolis, MN 55414 Phone: 612.607.1700

Fax: 612.607.6444

Report Prepared for:

Bo Garcia PASI Florida 8 East Tower Circle Ormond Beach FL 32174

> **REPORT OF** LABORATORY **ANALYSIS FOR** 2,3,7,8-TCDD

Report Summary:

This report contains results of one drinking water sample analyzed to determine 2,3,7,8-TCDD content. This sample was analyzed according to Method 1613 by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

Report Information:

Pace Project #: 10396064

Sample Receipt Date: 07/18/2017

Client Project #: 35324052

Client Sub PO #: N/A **State Cert #: 11647**

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 Drinking Water Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Sarah Platzer, your Pace Project Manager.

This report has been reviewed by:

August 03, 2017

Sarah Platzer, Project Manager 612-607-6451 (612) 607-6444 (fax)

sarah.platzer@pacelabs.com



Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.

Report Prepared Date:

August 3, 2017



Tel: 612-607-1700 Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Montana	CERT0092
Alabama	40770	Nebraska	NE-OS-18-06
Alaska	MN00064	Nevada	MN00064
Alaska	UST-078	New Jersey (NE	MN002
Arizona	AZ0014	New York (NEL	11647
Arkansas	88-0680	New hampshire	2081
CNMI Saipan	MP0003	North Carolina	27700
California	MN00064	North Carolina	530
Colorado	MN00064	North Dakota	R-036
Connecticut	PH-0256	Ohio	41244
EPA Region 8	8TMS-L	Ohio VAP	CL101
Florida (NELAP	E87605	Oklahoma	9507
Georgia (EDP)	959	Oregon (ELAP)	MN200001
Guam EPA	959	Oregon (OREL	MN300001
Hawaii	MN00064	Pennsylvania	68-00563
Idaho	MN00064	Puerto Rico	MN00064
Illinois	200011	South Carolina	74003001
Indiana	C-MN-01	Tennessee	TN02818
Iowa	368	Texas	T104704192
Kansas	E-10167	Utah (NELAP)	MN00064
Kentucky	90062	Virginia	460163
Louisiana	03086	Washington	C486
Louisiana	MN00064	West Virginia #	9952C
Maryland	322	West Virginia D	382
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-L
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.



Tel: 612-607-1700 Fax: 612- 607-6444

Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X =%D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

Chain of Custody

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_;	Reposition	1. 33324032		Name:LBG,Inc)wn	er Rec	eived	Dat	:e:		1/201				≀equ	este	d By	r: 7/2	8/2017
Vo10	Bo Garcia Pace Analyt 8 East Towe	ach, FL 32174		Pace . 1700 Suite . Minne	Analytical Minn Elm Street SE	414					1613		200		es () = 5				40 (A)	-21:			
5								Sport Control	2-may 1 , 1		EPA					:40		- - - - - - - - - -	501 503		30		
13DW	tent Sample	, and a second	samidie Vae	Set 5 Collect. Date/Time			Unpreserved		Con	rajū±iš						::				10.	-:	; LAB U	SE ONLY
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-	·	nperature on Rec	eint D.D	°C Cus	 tody Seal N	or N	$\overline{}$		2000	israd a	- loo			A.I		$\overline{}$					_		
		ipolatale oli itet	oipt - 10	O Cus	tody Seal I		/ 	<u>_</u>	CUCE	ived o	II ICE	<u> </u>	or	N.			3	amp	oles	ntac	<u> </u>	or I	4

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Face Analytical*

Document Name:

Sample Condition Upon Receipt Form

Document No.: F-MN-L-213-rev.20 Document Revised: 19Dec2016 Page 1 of 2

issuing Authority: Pace Minnesota Quality Office

Sample Condition Client Name:		Project	# III AUTONOLWA I
Upon Receipt Park ()	R.	1	
Courier: Teed Ex DUPS			
Commercial Pace SpeeDee	USPS Other:_	Cfient	
Tracking Number: 7422 - 5599 - 75	jotner:_		
- 100	2.2		
Custody Seal on Cooler/Box Present? Yes No	;	Seals Intact?	Yes No Optional: Proj. Due Date: Proj. Name:
Packing Material: Bubble Wrap Bubble Bags	Non	e 🔲 Other:	Temp Blank? Yes
Thermometer 151401163 Used: 151401164	Тур	e of Ice: We	
Cooler Temp Read (°C): O . Cooler Temp Corro	ected (°C)	0.2	Biological Tissue Frozen?
Temp should be above freezing to 6°C Correction Facto	r: In	Dat Dat	te and Initials of Person Examining Contents:
USDA Regulated Soil (N/A, water sample) Did samples originate in a quarantine zone within the United St	atos: Al A	AD CA EL CA ID I	LA MC
NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)?		□Yes	No including Hawaii and Puerto Rico)? Tyes Tho
If Yes to either question, fill out a Regu	ılated Soi	l Checklist (F-MN	-Q-338) and include with SCUR/COC paperwork.
			COMMENTS:
Chain of Custody Present?	¥Yes	□No	1.
Chain of Custody Filled Out?	Yes	□No	2.
Chain of Custody Relinquished?	Yes	□No	3.
Sampler Name and/or Signature on COC?	Yes	□No □N/A	4.
Samples Arrived within Hold Time?	Yes	□No	5.
Short Hold Time Analysis (<72 hr)?	□Yes	₩No	5.
Rush Turn Around Time Requested?	Yes	X N₀	7.
Sufficient Volume?	¥⊒Yes	□No	8.
Correct Containers Used?	Ayes	□No	9.
-Pace Containers Used?	Yes	□No	
Containers Intact?	Yes	□No	10.
Filtered Volume Received for Dissolved Tests?	□Yes	□No J EN/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	Yes	□No	12.
-Includes Date/Time/ID/Analysis Matrix:	~	_	
All containers needing acid/base preservation have been			13. THNO3 TH2504 TNACH Positive for Res.
checked? All containers needing preservation are found to be in	☐Yes	□No X\N/A	Chlorine? Y N
compliance with EPA recommendation?			Sample #
(HNO ₃ , H ₂ SO ₄ , <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide)	□Yes	□No □N/A	
Exceptions: VOA, Colliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin.	Y.es	□No □N/A	Initial when Lot # of added completed: preservative:
Headspace in VOA Vials (>6mm)?	□Yes		completed: preservative: 14.
Trip Blank Present?	☐Yes	□No N/A	15.
Trip Blank Custody Seals Present?	Yes	□No DIN/A	
Pace Trip Blank Lot # (if purchased):			·
CLIENT NOTIFICATION/RESOLUTION			Field Data Required? ☐Yes ☐No
Person Contacted:			Date/Time:
Comments/Resolution:			
		7	
Project Manager Review; Zulah Hos	601		Date: 7/18/2017
Note: Whenever there is a discrepancy affecting North Carolina comhold, incorrect preservative, but of temp, incorrect containers)	pliance sar	mples, a copy of this	s form will be sent to the North Carolina DEHNR Certification Office (i.e. out of

hold, incorrect preservative, out of temp, incorrect containers).



Drinking Water Analysis Results 2,3,7,8-TCDD -- USEPA Method 1613B

Tel: 612-607-1700 Fax: 612-607-6444

Client...... PASI Florida Lab Sample ID..... 35324052001-R Date Collected.....07/13/2017 Date Received.....07/18/2017 Date Extracted.....07/31/2017

	Sample C-6	Method Blank	Lab Spike	Lab Spike Dup
[2,3,7,8-TCDD]	ND	ND		
EDL	1.8 pg/L	1.8 pg/L		
2,3,7,8-TCDD Recovery			89%	82%
Spike Recovery Limit			73-146%	73-146%
RPD			7.	9%
IS Recovery	105%	97%	104%	98%
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	103%	94%	103%	96%
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename	F170801B_24	F170801B_23	F170801B_21	F170801B_22
Analysis Date	08/02/2017	08/02/2017	08/02/2017	08/02/2017
Analysis Time	10:20	09:37	08:12	08:54
Analyst	SMT	SMT	SMT	SMT
Volume	0.953L	1.027L	1.010L	1.020L
Dilution	NA	NA	NA	NA
ICAL Date	01/11/2017	01/11/2017	01/11/2017	01/11/2017
CCAL Filename	F170801B_17	F170801B_17	F170801B_17	F170801B_17

! = Outside the Control Limits ND = Not Detected

ND = Not Detected EDL = Estimated Detection Limit

Limits = Control Limits from Method 1613 (10/94 Revision), Tables 6A and 7A

RPD = Relative Percent Difference of Lab Spike Recoveries

IS = Internal Standard [2,3,7,8-TCDD- $^{13}C_{12}$] CS = Cleanup Standard [2,3,7,8-TCDD- $^{37}Cl_4$]

Project No.....10396064



ANALYTICAL REPORT

Job Number: 420-123595-2 SDG Number: Clovewood Job Description: LBG, Inc.

For:

Leggette, Brashears & Graham, Inc. 4 Research Drive Shelton, CT 06464

Attention: Stacy Stieber

Debra Bayer

Subbra 50

Customer Service Manager dbayer@envirotestlaboratories.com

08/24/2017

NYSDOH ELAP does not certify for all parameters. EnviroTest Laboratories does hold certification for all analytes where certification is offered by ELAP unless otherwise specified in the Certification Information section of this report. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval of the laboratory. EnviroTest Laboratories Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our laboratory. All questions regarding this report should be directed to the EnviroTest Customer Service Representative.

EnviroTest Laboratories, Inc. Certifications and Approvals: NYSDOH 10142, NJDEP NY015, CTDOPH PH-0554



METHOD SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-2 SDG Number: Clovewood

Descrip	otion	Lab Location	Method Preparation Method	
Matrix:	Water			
S: To	als by 200.7 ample Filtration otal Metals Digestion for 200.7 00 Series Drinking Water Prep Determination Step	EnvTest EnvTest EnvTest EnvTest	EPA 200.7 Rev 4.4 FILTRATION EPA 200.7 EPA 200.7/200.8	
20	Metals by 200.8 00 Series Drinking Water Prep Determination Step otal Metals Digestion for 200.8	EnvTest EnvTest EnvTest	EPA 200.8 Rev.5.4 EPA 200.7/200.8 EPA 200.8	
-	in Water by CVAA igestion for CVAA Mercury in Waters	EnvTest EnvTest	EPA 245.1 Rev.3.0 EPA 245.1	
Anions b	by Ion Chromatography	EnvTest	MCAWW 300.0	
Anions b	by Ion Chromatography	EnvTest	EPA 300.0 Rev. 2.1	
EPA 504	l.1 EDB	Pace	EPA 504.1	
EPA 505	Pesticide/PCB	Pace	EPA 505	
EPA 515	Chlorinated Acids	Pace	EPA 515	
Purgeab	le Organic Compounds in Water by GC/MS	EnvTest	EPA-DW 524.2	
EPA 525	5.2 Semivolatile Organics	Pace	EPA 525.2	
EPA 531	.1 Carbamate Pesticides in Drinki	Pace	EPA 531.1	
EPA 900	Series GA/GB/RA226/RA228/Gamma	Radios	EPA 900	
Jranium	ı	Radios	STL-STL EPA	
Heterotr	opic Plate Count	EnvTest	IDEXX SIMPLATE	
Odor, Th	nreshold Test	EnvTest	SM20 SM 2150B	
Alkalinity	y, Titration Method	EnvTest	SM21 SM 2320B-97,-11	
Corrosiv	ity LSI Calculation	EnvTest	SM20 SM 2330B	
Hardnes	s by Calculation	EnvTest	SM20 SM 2340B-97,-11	
Н		EnvTest	SM19 SM 4500 H+ B	
Nitrite by	y Colormetric	EnvTest	SM20 SM 4500 NO2 B	
	liform and Escherichia coli by Colilert - e/Absence	EnvTest	SMWW SM 9223	
Apparen	it Color	EnvTest	SM21 SM2120B-01,11	
Turbidity	1	EnvTest	SM21 SM2130B-01,11	
Total Dis	ssolved Solids (Dried at 180 °C)	EnvTest	SM21 SM2540C-97,11	
	, Total: Colorimetric Method yanide: Distillation	EnvTest EnvTest	SM21 SM4500 CN E-99 SM21 SM 4500 CN C	
General	Sub Contract Method	Pace	Subcontract	
General	Sub Contract Method	Radios	Subcontract	

METHOD SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-2 SDG Number: Clovewood

Description Lab Location Method Preparation Method

Lab References:

EnvTest = EnviroTest

Pace = Pace Analytical - Ormond Beach

Radios = Pace Analytical Services, Inc.

Method References:

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

IDEXX =

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Page 3 of 18

SM19 = "Standard Methods For The Examination Of Water And Wastewater", 19Th Edition, 1995."

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SM21 = "Standard Methods For The Examination Of Water And Wastewater", 21st Edition

SMWW = "Standard Methods for the Examination of Water and Wastewater"

STL-STL = Severn Trent Laboratories, St. Louis, Facility Standard Operating Procedure.

METHOD / ANALYST SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-2 SDG Number: Clovewood

Method	Analyst	Analyst ID
EPA-DW 524.2	Andersen, Eric C	ECA
EPA 200.7 Rev 4.4	Sirico, Derek	DS
EPA 200.8 Rev.5.4	Sirico, Derek	DS
EPA 245.1 Rev.3.0	Sirico, Derek	DS
SM20 SM 2340B-97,-11	Sirico, Derek	DS
MCAWW 300.0	Luis, Carlos	CL
EPA 300.0 Rev. 2.1	Luis, Carlos	CL
IDEXX SIMPLATE	O'Driscoll, Kate	KO
SM20 SM 2150B	O'Driscoll, Kate	КО
SM21 SM 2320B-97,-11	Tramantano, Matt	MT
SM20 SM 2330B	Cusack, Renee	RC
SM19 SM 4500 H+ B	O'Driscoll, Kate	КО
SM20 SM 4500 NO2 B	Grant, Ameya	AG
SMWW SM 9223	Grant, Ameya	AG
SM21 SM2120B-01,11	O'Driscoll, Kate	КО
SM21 SM2130B-01,11	O'Driscoll, Kate	КО
SM21 SM2540C-97,11	O'Driscoll, Kate	КО
SM21 SM4500 CN E-99	Osborne, Amy	AO

SAMPLE SUMMARY

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-2

SDG Number: Clovewood

			Date/Time	Date/Time
Lab Sample ID	Client Sample ID	Client Matrix	Sampled	Received
420-123595-2	C - 12	Drinking Water	07/13/2017 1020	07/13/2017 1000

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-2

Sdg Number: Clovewood

Client Sample ID: C - 12

 Lab Sample ID:
 420-123595-2
 Date Sampled:
 07/13/2017
 1020

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

524.2 Purgeable Organic Compounds in Water by GC/MS

Method: 524.2 Analysis Batch: 420-112453 Instrument ID: Agilent 7890A/5975C

Preparation:N/ALab File ID:X071419.DDilution:1.0Initial Weight/Volume:5mL

Date Analyzed: 07/14/2017 1844 Final Weight/Volume: 5 mL

Date Prepared: N/A

Analyte	Result (ug/L) Qualifier	RL
1,1,1,2-Tetrachloroethane	<0.500	0.500
1,1,1-Trichloroethane	<0.500	0.500
1,1,2,2-Tetrachloroethane	<0.500	0.500
1,1,2-Trichloroethane	<0.500	0.500
1,1-Dichloroethane	<0.500	0.500
1,1-Dichloroethene	<0.500	0.500
1,1-Dichloropropene	<0.500	0.500
1,2,3-Trichlorobenzene	<0.500	0.500
1,2,3-Trichloropropane	<0.500	0.500
1,2,4-Trichlorobenzene	<0.500	0.500
1,2,4-Trimethylbenzene	<0.500	0.500
1,2-Dichloroethane	<0.500	0.500
1,2-Dichlorobenzene	<0.500	0.500
1,2-Dichloropropane	<0.500	0.500
1,3-Dichloropropane	<0.500	0.500
1,4-Dichlorobenzene	<0.500	0.500
2,2-Dichloropropane	<0.500	0.500
Benzene	<0.500	0.500
Bromobenzene	<0.500	0.500
Bromochloromethane	<0.500	0.500
Bromomethane	<0.500	0.500
n-Butylbenzene	<0.500	0.500
cis-1,2-Dichloroethene	<0.500	0.500
cis-1,3-Dichloropropene	<0.500	0.500
Carbon tetrachloride	<0.500	0.500
Chlorobenzene	<0.500	0.500
Chloroethane	<0.500	0.500
Chloromethane	<0.500	0.500
Dibromomethane	<0.500	0.500
Ethylbenzene	<0.500	0.500
Dichlorodifluoromethane	<0.500	0.500
Hexachlorobutadiene	<0.500	0.500
Isopropylbenzene	<0.500	0.500
p-lsopropyltoluene	<0.500	0.500
Methylene Chloride	<0.500	0.500
m-Xylene & p-Xylene	<1.00	1.00
Methyl tert-butyl ether	<0.500	0.500
o-Xylene	<0.500	0.500
Tetrachloroethene	<0.500	0.500
Toluene	<0.500	0.500
trans-1,2-Dichloroethene	<0.500	0.500
trans-1,3-Dichloropropene	<0.500	0.500
Trichloroethene	<0.500	0.500
tert-Butylbenzene	<0.500	0.500

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-2

Sdg Number: Clovewood

Client Sample ID: C - 12

 Lab Sample ID:
 420-123595-2
 Date Sampled:
 07/13/2017
 1020

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

524.2 Purgeable Organic Compounds in Water by GC/MS

Method: 524.2 Analysis Batch: 420-112453 Instrument ID: Agilent 7890A/5975C

Preparation: N/A Lab File ID: X071419.D Unitial Weight/Volume: 5 mL

Date Analyzed: 07/14/2017 1844 Final Weight/Volume: 5 mL

Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL
Trichlorofluoromethane	<0.500		0.500
Vinyl chloride	<0.500		0.500
Xylenes, Total	<1.50		1.50
Styrene	<0.500		0.500
sec-Butylbenzene	<0.500		0.500
1,3,5-Trimethylbenzene	<0.500		0.500
N-Propylbenzene	<0.500		0.500
1,3-Dichlorobenzene	<0.500		0.500
2-Chlorotoluene	<0.500		0.500
4-Chlorotoluene	<0.500		0.500
Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene	101		71 - 120
Toluene-d8 (Surr)	119		79 - 121
1,2-Dichloroethane-d4 (Surr)	121		70 - 128

Job Number: 420-123595-2 Client: Leggette, Brashears & Graham, Inc.

Sdg Number: Clovewood

50 mL

50 mL

Client Sample ID: C - 12

Lab Sample ID: 420-123595-2 Date Sampled: 07/13/2017 1020 Client Matrix: **Drinking Water** Date Received: 07/13/2017 1000

200.7 Rev 4.4 ICP Metals by 200.7

Instrument ID: Thermo ICP Method: 200.7 Rev 4.4 Analysis Batch: 420-112479 Prep Batch: 420-112493 N/A Lab File ID:

Preparation: 200.7/200.8

Dilution: Initial Weight/Volume: 1.0 Date Analyzed: 07/17/2017 1440 Final Weight/Volume:

Date Prepared: 07/17/2017 0925

Analyte Result (ug/L) Qualifier RL <60.0 60.0 Iron Manganese <10.0 10.0 6870 Sodium 200 Zinc 28.4 20.0

200.7 Rev 4.4 ICP Metals by 200.7-Dissolved

Method: Analysis Batch: 420-112597 Instrument ID: Thermo ICP 200.7 Rev 4.4 Prep Batch: 420-112501 Lab File ID: N/A

Preparation: 200.7 Dilution: 1.0

Initial Weight/Volume: 50 mL Date Analyzed: 07/19/2017 1801 Final Weight/Volume: 50 mL

07/17/2017 1505 Date Prepared:

Analyte Result (ug/L) Qualifier RL <60.0 60.0 Iron Manganese <10.0 10.0

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-2

Sdg Number: Clovewood

Client Sample ID: C - 12

 Lab Sample ID:
 420-123595-2
 Date Sampled:
 07/13/2017
 1020

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

200.8 Rev.5.4 ICPMS Metals by 200.8

Method: 200.8 Rev.5.4 Analysis Batch: 420-112457 Instrument ID: Perkin Elmer ELAN

Preparation: 200.7/200.8 Prep Batch: 420-112493 Lab File ID: N/A
Dilution: 1.0 Initial Weight/Volume: 50 mL

Date Analyzed: 07/17/2017 1324 Final Weight/Volume: 50 mL

Date Prepared: 07/17/2017 0925

Analyte	Result (ug/L)	Qualifier	RL
Lead	<1.00		1.00
Arsenic	<1.40		1.40
Beryllium	< 0.300		0.300
Cadmium	<1.00		1.00
Chromium	<7.00		7.00
Nickel	1.96		0.500
Antimony	<0.400		0.400
Thallium	< 0.300		0.300
Barium	6.80		2.00
Selenium	<2.00		2.00

Method: 200.8 Rev.5.4 Analysis Batch: 420-112536 Instrument ID: Perkin Elmer ELAN

Preparation: 200.8 Prep Batch: 420-112520 Lab File ID: N/A
Dilution: 1.0 Initial Weight/Volume: 50 mL

Date Analyzed: 07/18/2017 1721 Final Weight/Volume: 50 mL
Date Prepared: 07/17/2017 1800

 Analyte
 Result (ug/L)
 Qualifier
 RL

 Silver
 <1.00</td>
 1.00

245.1 Rev.3.0 Mercury in Water by CVAA

Method: 245.1 Rev.3.0 Analysis Batch: 420-112511 Instrument ID: Perkin Elmer FIMS Preparation: 245.1 Prep Batch: 420-112451 Lab File ID: N/A

Dilution: 1.0 Initial Weight/Volume: 25 mL

Date Analyzed: 07/18/2017 1211 Final Weight/Volume: 25 mL Date Prepared: 07/17/2017 1115

Analyte Result (ug/L) Qualifier RL

Mercury <0.200 0.200

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-2

Sdg Number: Clovewood

Client Sample ID: C - 12

 Lab Sample ID:
 420-123595-2
 Date Sampled:
 07/13/2017
 1020

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

SM 2340B-97,-11 Hardness by Calculation

Method: SM 2340B-97,-11

Preparation: N/A
Dilution: 1.0

Date Analyzed: 07/17/2017 1440

Date Prepared: N/A

Analysis Batch: 420-112535

Instrument ID: None Lab File ID: N/A

Initial Weight/Volume: Final Weight/Volume:

Analyte Result (mg/L) Qualifier RL

Calcium hardness as calcium carbonate 110 1.25

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-2

Sdg Number: Clovewood

Rin	logy
	UM V

Client Sample ID: C - 12

Lab Sample ID: 420-123595-2 Client Matrix: Drinking Water Date Sampled: 07/13/2017 1020 Date Received: 07/13/2017 1000

 Analyte
 Result
 Qual
 Units
 Dil
 Method

 Coliform, Total
 Present
 g
 CFU/100mL
 1.0
 SM 9223

Anly Batch: 420-112380 Date Analyzed 07/13/2017 1510

Escherichia coli Present g CFU/100mL 1.0 SM 9223

Anly Batch: 420-112380 Date Analyzed 07/13/2017 1510

Analyte Result Qual Units RL Dil Method
Heterotrophic Plate Count 28.0 CFU/mL 2.00 1.0 SIMPLATE

Anly Batch: 420-112413 Date Analyzed 07/13/2017 1550

General Chemistry

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-2

Sdg Number: Clovewood

General	Chemistry
General	CHEIIIISUV

Client Sample ID: C - 12

Lab Sample ID: 420-123595-2 Client Matrix: Drinking Water Date Sampled: 07/13/2017 1020 Date Received: 07/13/2017 1000

 Analyte
 Result
 Qual
 Units
 RL
 Dil
 Method

 Nitrate as N
 <0.250</td>
 mg/L
 0.250
 1.0
 300.0

Anly Batch: 420-112412 Date Analyzed 07/13/2017 1631

AnalyteResultQualUnitsDilMethodLangelier Index-0.0500NONE1.0SM 2330B

Anly Batch: 420-112765 Date Analyzed 07/26/2017 1302

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-2

Sdg Number: Clovewood

General Chemistry

Client Sample ID: C - 12

 Lab Sample ID:
 420-123595-2
 Date Sampled:
 07/13/2017
 1020

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

Analyte	Result	Qual Units	RL	Dil	Method
Alkalinity	115	mg/L	5.00	1.0	SM 2320B-97,-11
	Anly Batch: 420-112669	Date Analyzed 07/21/2017 17	'30		
Total Dissolved Solids	168	mg/L	5.00	1.0	SM2540C-97,11
	Anly Batch: 420-112602	Date Analyzed 07/20/2016 17	700		
Sulfate	20.0	mg/L	5.00	1.0	300.0 Rev. 2.1
	Anly Batch: 420-112412	Date Analyzed 07/13/2017 16	331		
Fluoride	<0.500	mg/L	0.500	1.0	300.0 Rev. 2.1
	Anly Batch: 420-112412	Date Analyzed 07/13/2017 16	331		
Chloride	9.06	mg/L	3.00	2.0	300.0 Rev. 2.1
	Anly Batch: 420-112447	Date Analyzed 07/14/2017 23	321		
Cyanide, Total	<0.00500	mg/L	0.00500	1.0	SM4500 CN E-99
	Anly Batch: 420-112524	Date Analyzed 07/18/2017 14	100		
	Prep Batch:	Date Prepared: 07/14/2017 13	300		
Apparent Color	5.00	Pt-Co	2.00	1.0	SM2120B-01,11
	Anly Batch: 420-112486	Date Analyzed 07/13/2017 17	'47		
pH@color measurement	7.62	SU	2.00	1.0	SM2120B-01,11
	Anly Batch: 420-112486	Date Analyzed 07/13/2017 17	'47		
Turbidity	0.482	NTU	0.100	1.0	SM2130B-01,11
•	Anly Batch: 420-112420	Date Analyzed 07/13/2017 18	310		
Odor	1.00	T.O.N.	1.00	1.0	SM 2150B
	Anly Batch: 420-112485	Date Analyzed 07/13/2017 18	300		
Temp @ Odor Measurem	ent 60.0	Degrees C	5.00	1.0	SM 2150B
	Anly Batch: 420-112485	Date Analyzed 07/13/2017 18	300		
pН	7.62	H SU	0.200	1.0	SM 4500 H+ B
	Anly Batch: 420-112487	Date Analyzed 07/13/2017 17	' 45		
Temp @ pH Measuremer	nt 17.3	Degrees C	5.00	1.0	SM 4500 H+ B
	Anly Batch: 420-112487	Date Analyzed 07/13/2017 17	' 45		
Nitrite as N	<0.0100	mg/L	0.0100	1.0	SM 4500 NO2 B
	Anly Batch: 420-112510	Date Analyzed 07/14/2017 10	147		

DATA REPORTING QUALIFIERS

Client: Leggette, Brashears & Graham, Inc.

Job Number: Sdg Number: Clovewood

Lab Section	Qualifier	Description
General Chemistry		
	Н	Sample was prepped or analyzed beyond the specified holding time
Biology		
	g	Result fails applicable NYS drinking water standards

Certification Information

Client: Leggette, Brashears & Graham, Inc. Job Number:

Sdg Number: Clovewood

The following analytes are Not Part of the ELAP scope of accreditation

Sulfur, Tungsten, Silicon, Bicarbonate Alkalinity, 7 Day BOD 5210C, 28 Day BOD, Soluble BOD, Carbon Dioxide, Carbonate Alkalinity, CBOD Soluble, Chlorine, Cyanide (WAD), Ferrous Iron, Ferric Iron, Total Nitrogen, Total Organic Nitrogen, Dissolved Oxygen, pH, Phenolphthalein Alkalinity, Solids (Fixed), Solids (Percent), Solids (Percent Moisture), Solids (Percent Volatile), Solids (Volatile Suspended), Temperature, TKN (Soluble), COD (Soluble), Total Inorganic Carbon, Volatile Acids as Acetic Acid, 2-Aminopyridine, 3-Picoline, 1-Methyl-2-pyrrilidinone, Aziridine, Dimethyl sulfoxide, 1-Chlorohexane, Iron Bacteria, Salmonella, & Sulfur Reducing Bacteria.

The following analytes are Not Part of ELAP Potable Water scope of accreditation

Cobalt (200.7, 200.8), Tin (200.7), Strontium (200.7), Gold (200.7), Platinum (200.7), Palladium (200.7), Titanium (200.7), Phosphorus (365.3), Nitrate-Nitrite (10-107-4-1C, 353.2), m-Xylene & p-Xylene (502.2, 524), Naphthalene (502.2), o-Xylene (502.2, 524), & Fecal Coliform (9222D).

The following analytes are Not Part of ELAP Solid and Hazardous Waste scope of accreditation

Ammonia (SM 4500NH3G), TKN (351.2), Phosphorus (365.3), 1,2-Dichloro-1,1,2-trifluoroethane (8260), & Chlorodifluoromethane (8260).

The following analytes are Not Part of ELAP Non Potable Water scope of accreditation

Dissolved Organic Carbon (5310C), Mecoprop (8151A), & MCPA (8151A).

Definitions and Glossary

Client: Leggette, Brashears & Graham, Inc. Job Number:

Sdg Number: Clovewood

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%R	Percent Recovery
DL, RA, RE	Indicates a Dilution, Reanalysis or Reextraction.
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit - an estimate of the minimum amount of a substance that an analytical process can reliably detect. A MDL is analyte- and matrix-specific and may be laboratory-dependent.
ND	Not detected at the reporting limit (or MDL if shown).
QC	Quality Control
RL	Reporting Limit - the minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.
RPD	Relative Percent Difference - a measure of the relative difference between two points

Page 16 of 18

																			·····	
Enviro Labora	Test atorie	es, Inc.	CHA Lab Name Address & Phone	Envi	roTe	st La	borato	ries						35 5-562		<u>5</u> –	Q		REPORT# (L	ab Use Only)
PROJECT REFERENCE Clo	vewood	PROJECT NO.	PROJECT LOCATION		MATRI) TYPE	(-		REQ	JIRED	ANAL'	YSES					PAGE 1 of	1
ENVIROTEST PROJECT M	ra Bayer	P.O. NUMBER CLIENT PHONE	TOWN CLIENT FAX				MPA C/G kit	40ml Vials HCI	um Thio.	um Thio.	Na2S03	tric Acid	o(liquid)	Liter Plastic	um Hyd.	c Sterile	tic Nitric	Saudun s	*****	TURNAROUND TIME
LB	IG, Inc.	203-929-8555	CHENI FAX	DICATE	Water) Indicate		MP	40ml	40ml Sodium Thio	250ml Amber Sodium Thio.	Liter Amber HCI/Na2S03	250ml Plastic Nitric Aci	40ml Mon/Sod.Thio(liquid	Lite	250ml Plastic Sodium Hyd	25ml Plastic Sterile	Liter Plastic Nitric	40ml Vials Unpre	NORMAL	
CLIENT NAME Stac	y Stieber			(G) R	ま	1			4	¥ =	ler Ar	imo:	i Mor		ni Pta	128	_	4	QUICK	
CLIENT ADDRESS				R GRAE	or W (W	8				250n	1	K	40ш		250r				VERBAL	
COMPANY CONTRACTING	3 THIS WORK (If app	Shelton, CT 06484	1	DSITE (C) OR	D (Drinking Water) or W (Wa	OR SEMISO Specify		·	.L		·								#OF COOLERS	
SAMPLE DATE	TIME	SAMPLE IDENTIFICA	TION	COMPC	D (Drin)				1	NUMBE	R OF	CONT	AINER	s sub	MITTE	D				REMARKS
7/13/14	1020	C-12		П	D			3	2	1	2	1	2	4	1	2	5	2	Table 8B (Sb,A	s,Ba,Be,Cd,Cr,Cn,Hg,Ni
'/ / '																			Se,TI,F)	
																			Table 8C (NO3,	NO2)
					II		2-Liter	r Ambe	er Unpr	es.									Table 8D (CI,Fe	,Mn,Ag,Na,SO4,Zn,Odor,Color)
						L	1-250	ml Aml	ber Unr	ores.									524.2 (POC,MT	BE,Vinyl Chloride)
			·	Ш	Ш	\perp	3-250	ml Plas	stic Unp	pres. (r	no air)								SOCs (504,508,	515,525,531,547,548,549,Dloxin)
				Ш	Ш	\perp	2-40m	l Amb	er Sodi	um Thi	0.						<u></u>		Additional Test	s (Total coliform
				Ш	Ш		1-500	mi Am	ber Soc	dium T	nio.	<u> </u>	<u> </u>						thru Zinc)	
				$oxed{oxed}$	Ш		1-Lite	r Ambe	er Plast	lc Sod	um Thi	o.&H2	SO4						Radio(Gross A	lpha/Beta,Radium-226/228,Uranium)
					Ш		2-Lite	r Ambe	er Sodiı	um Thi	0.				<u> </u>				Radon	
		<u> </u>			V	\bot		<u> </u>	<u> </u>	<u> </u>	ļ		ļ		L				Dissolved Fe, N	Mn
					Ш	\perp	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>	<u> </u>	<u> </u>	L		ļ	
DELINOUS PA	// VOICENATURE	COMPANY	TRATE /		Ш		DEGE	IVED	BY: (SI	LONG T		<u>L</u>	<u> </u>	<u></u>	L	20115	1 1 1 1	<u> </u>	DATE	ITIME
RELINQUISHED BY	acer thi	COMPANY	DATE /3/1-	TIME	14	<u>/3</u>			,							COMP			DATE	
SAMPLED AN (SIG		LBG.	1/18/17	TIME	10	20														
REUNQUISHED			DATE /		:		HECE	:IAED	BY: (S	IGNAT	UHE)				(COMP.	ANY		DATE	TIME
		OCs, Radio, Radon; ASI-M	PA/Crypto/Glarc	lla			Teres		0			(2)	/	7						
RECEIVED FOR LA	BORATORY BY 7	DATE TIME 7/B/N 1KB	CUSTODY INTACT YES NO	3	S Ter	L.	LABO		HY HE	:MARK	S :	ICE_	p	H	_ CL2		Revel	ved by		•

LOGIN SAMPLE RECEIPT CHECK LIST

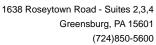
Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-2

SDG Number: Clovewood

Login Number: 123595

Question	T/F/NA	Comment
Samples were collected by ETL employee as per SOP-SAM-1	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is recorded.	True	3.5C
Cooler Temp. is within method specified range.(0-6 C PW, 0-8 C NPW, or BAC <10 C	True	
If false, was sample received on ice within 6 hours of collection.	NA	
Based on above criteria cooler temperature is acceptable.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	False	рН
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	





August 03, 2017

Ms. Debra Bayer EnviroTest Laboratories, Inc. 315 Fullerton Avenue Newburgh, NY 12550

RE: Project: 42001269

Pace Project No.: 30224100

Dear Ms. Bayer:

Enclosed are the analytical results for sample(s) received by the laboratory on July 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins

Suguely Cellins

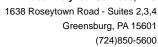
jacquelyn.collins@pacelabs.com

(724)850-5612 **Project Manager**

Enclosures

cc: Janine Rader, EnviroTest Laboratories, Inc.







CERTIFICATIONS

Project: 42001269
Pace Project No.: 30224100

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683 Georgia Certification #: C040

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091
Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification Missouri Certification #: 235 Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002

Montana Certification #: Cert 0082

Pennsylvania/TNI Certification #: 65-00282 Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282

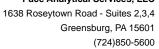
South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

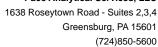




SAMPLE SUMMARY

Project: 42001269
Pace Project No.: 30224100

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30224100001	C-12 (420-123595-2)	Drinking Water	07/13/17 10:20	07/14/17 10:20

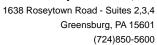




SAMPLE ANALYTE COUNT

Project: 42001269
Pace Project No.: 30224100

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30224100001	C-12 (420-123595-2)	SM7500RnB-07	NEG	1
		EPA 900.0	NEG	2
		EPA 903.1	WRR	1
		EPA 904.0	VAL	1
		ASTM D5174-97	RMK	1

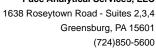




ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 42001269
Pace Project No.: 30224100

Sample: C-12 (420-123595-2) PWS:	Lab ID: 30224 Site ID:	Collected: 07/13/17 10:20 Sample Type:	Received:	07/14/17 10:20	Matrix: Drinking	Water
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radon	SM7500RnB-07	757 ± 51.4 (45.6) C:NA T:NA	pCi/L	07/15/17 06:34	10043-92-2	
Gross Alpha	EPA 900.0	0.718 ± 1.28 (2.89) C:NA T:NA	pCi/L	07/24/17 08:37	12587-46-1	
Gross Beta	EPA 900.0	0.949 ± 0.730 (1.47) C:NA T:NA	pCi/L	07/24/17 08:37	12587-47-2	
Radium-226	EPA 903.1	0.301 ± 0.391 (0.647) C:NA T:93%	pCi/L	07/26/17 12:51	13982-63-3	
Radium-228	EPA 904.0	0.459 ± 0.347 (0.703) C:77% T:82%	pCi/L	07/27/17 11:16	15262-20-1	
Total Uranium	ASTM D5174-97	0.717 ± 0.025 (0.193) C:NA T:NA	ug/L	08/03/17 16:26	7440-61-1	





Project:

42001269

Pace Project No.:

30224100

QC Batch:
QC Batch Method:

265143

ASTM D5174-97

Analysis Method:

ASTM D5174-97

Analysis Description:

D5174.97 Total Uranium KPA

Associated Lab Samples:

30224100001

METHOD BLANK: 1306496

Matrix: Water

Associated Lab Samples:

30224100001

Parameter

Act ± Unc (MDC) Carr Trac

Units ug/L Analyzed

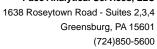
Qualifiers

Total Uranium

0.064 ± 0.004 (0.193) C:NA T:NA

08/03/17 11:33

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project:

42001269

Pace Project No.:

30224100

QC Batch:

265053

Analysis Method: Analysis Description: SM7500RnB-07 7500Rn B Radon

QC Batch Method: SM7500RnB-07

Associated Lab Samples: 30224100001

Matrix: Water

METHOD BLANK: 1305441

Associated Lab Samples:

30224100001

Parameter

Act ± Unc (MDC) Carr Trac

Units pCi/L Analyzed

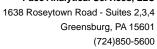
Qualifiers

Radon

2.8 ± 18.8 (32.7) C:NA T:NA

07/15/17 02:40

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project:

42001269

Pace Project No.:

30224100

QC Batch:

265152

Analysis Method:

EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description:

903.1 Radium-226

Associated Lab Samples:

30224100001

METHOD BLANK: 1306510

Matrix: Water

Associated Lab Samples:

30224100001

Parameter

Act ± Unc (MDC) Carr Trac

Units pCi/L

Analyzed

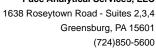
Qualifiers

Radium-226

0.159 ± 0.312 (0.570) C:NA T:95%

07/26/17 12:14

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project: 42001269
Pace Project No.: 30224100

QC Batch: 265148 Analysis Method: EPA 900.0

QC Batch Method: EPA 900.0 Analysis Description: 900.0 Gross Alpha/Beta

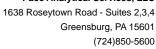
Associated Lab Samples: 30224100001

METHOD BLANK: 1306505 Matrix: Water

Associated Lab Samples: 30224100001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	-0.333 ± 0.399 (1.52) C:NA T:NA	pCi/L	07/24/17 08:35	_
Gross Beta	-0.362 ± 0.578 (1.62) C:NA T:NA	pCi/L	07/24/17 08:35	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project:

42001269

Pace Project No.:

30224100

QC Batch:

265158

Analysis Method:

EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description:

904.0 Radium 228

Associated Lab Samples:

30224100001

METHOD BLANK: 1306521

Matrix: Water

Associated Lab Samples:

30224100001

Parameter

Act ± Unc (MDC) Carr Trac

Units pCi/L Analyzed

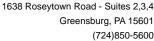
Qualifiers

Radium-228

 $0.0810 \pm 0.316 \quad (0.717) \text{ C:}75\% \text{ T:}85\%$

07/27/17 11:14

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





QUALIFIERS

Project: 42001269
Pace Project No.: 30224100

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Date: 08/03/2017 04:47 PM

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

EnviroTest Laboratories, Inc. 315 Fullerton Avenue Newburgh, NY 12550 Phone (84S) 552-0890 Fax (84S) 562-0841

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EnviroTest Estaboratories Inc. The second of the second of the second of

ormation (Sub Contract Lab)	SSteb-04 LB6		זמ	Camer Tracking No(s):	COC No: 420-9118.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dbayer@e	E-Mail: dbayer@envirotestlaboratories.com		Page: Page 1 of 1
Company: Pace Analytical Services, Inc.			Analysis Requested	uested	STL Job #: 420-123595-2
Address;	Due Date Requested:				Preservation Codes:
1638 Koseytown Kd, Sultes 2, 3,4,	7/2/2017				
Greensburg	IAI Kequested (days):		8		
State, Zip: PA, 15601			22 A5		D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3
Phone:	PO#:		1/977		
Email:	# QW		AA/8		
Project Name: I BG Inc	Project #:		GA/G ∃Urar	Ž IAUJE	J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify)
- Annual Control of the Control of t	SSOV#.		008 \T	1000 J	
Sample Identification Client ID (Lab ID)	Sample Date Time G=grab)	Je Matrix 6 % % % % % % % % % % % % % % % % % %	SARTNOSEUS SARTNOSEUS SARTNOSEUS	o 1edmul/ listoT	/W Sples
	M	Preservation Code.		X	
C - 12 (420-123595-2)	7/13/17 10:20	Water	×	L	S
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				10	3
Possible Hazard Identification Non-Hazard	orizola		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	ssessed if samples are retain	ed longer than 1 month)
ssted: I, II, IV, Other (specify)			Special Instructions/QC Requirements:		Archive For Months
Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by:	Date/Time: // /425	Company	Received by:	Date/Time:	Company
	Date/Timé:	Company	Received by:		Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks:	marks:	THE RESIDENCE OF THE PARTY OF T

Sample Condition Upon Rec	eipt l	Pitts	bur	gh		302241
Face Analytical Client Name:	<u>E</u>	์ดบ	. no f	rest labs.	_ Project;	¥
Courler: ②Fed Ex □UPS □USPS □Clie Tracking#: 〒子りょろうりするる	ы [3 🖒	Comn	nercia	I Pace Other		Label Al
Custody Seal on Cooler/Box Present:		Z no	Se	als_Intact: yes	no	
Thermometer Used	Туре		_	let Blue None	- °C r:	Tomo: 2 5 °C
Cooler Temperature Observed Temp	3.5	- • C	Со	rrection Factor: 💍	.O Fina	1 18mp. 12 ,
Temp should be above freezing to 6°C					Date and	initials of person examining
	Yes	No	TN/	Ā	conten	18: 24 + 1(51(51
Comments:	17	,	+-	1.		·
Chain of Custody Present:	+	•	+-	2.		
Chain of Custody Filled Oul:	1-	-	1	3,		• ***
Chain of Custody Relinquished:	1-	17	+	4,		
Sampler Name & Signature on COC:	+-	-	+	6.		
Sample Labels match COC:				⊣° .		
-Includes date/time/ID Matrix:	<u> </u>	 -	_	<u> </u>		
Samples Arrived within Hold Time:	 	<u> </u>	-	6		
Short Hold Time Analysis (<72hr remaining):	1	ļ.,	<u> </u>	<u> 7. </u>		
Rush Turn Around Time Requested:		/		8	•	
Sufficient Volume:	/			9.		
Correct Containers Used;			ļ	10.		
-Pace Containers Used:		1				
Containers Intact:	1			11.		
Orthophosphate field filtered				12	-	
Organic Samples checked for dechlorination:			1	13.		
Fillered volume received for Dissolved tests			/	14		
All containers have been checked for preservation.	\Box			15.		
All containers needing preservalion are found to be in compliance with EPA recommendation.	1		 -			
exceptions: VOA, coliform, TOC, O&G, Phenolics				inilial when E4	Date/lime of preservation	
sateplions, vory sometry,, -				Lot # of added		
	—~ _T			preservative		
leadspace in VOA Vials (>6mm):			_/_	16		
rip Blank Present:			-	17.		1
rip Blank Cuslody Seals Present Rad Aqueous Samples Screened > 0.5 mrem/hr				Initial when completed; 24	Date: 7/	14/17
Client Notification/ Resolution: Person Contacled:		r)ale/T	īme:	Contacte	ed By:
Person Contacted: Comments/ Resolution:) LI (O) 1			
Comments/ Resolution:						
-				***		
A check in this box indicates that addition	— onal in	form	ation	has been stored in	ereports.	
ole: Whenever there is a discrepancy affecting North Caro	lina com	pllance	samp	les, a copy of this form w	ill be sent to the No	dh Carolina DEHNR
ote: Whenever here is a dispreparty effecting the side of the certification Office (i.e., but of hold, incorrect preservalive, on the review is documented electronically in LIMS, When the line Workorder Edit Screen.	ul of lent Project h	ip, inco Vanage	rrect c	ontainers) es the SRF Review sched	dule in LIMS. The re	view is in the Status section

J:\QAQC\Master\Document Management\Sample Mgi\Sample Condition Upon Receipt Pittsburgh (C056-5 5July2017)





August 07, 2017

Ron Bayer EnviroTest Laboratories Inc. 315 Fullerton Avenue Newburgh, NY 12550

RE: Project: LBG, Inc 42001269

Pace Project No.: 35324054

Dear Ron Bayer:

Enclosed are the analytical results for sample(s) received by the laboratory on July 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Bo Garcia bo.garcia@pacelabs.com (386)672-5668 Project Manager

Enclosures

cc: Debra Bayer, EnviroTest Laboratories Inc. Renee Cusack, EnviroTest Laboratories Inc. Laura Marciano, EnviroTest Laboratories Inc. Janine Rader, EnviroTest Laboratories Inc. Meredith Ruthven, EnviroTest Laboratories Inc.





Ormond Beach, FL 32174 (386)672-5668

CERTIFICATIONS

Project: LBG, Inc 42001269

Pace Project No.: 35324054

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174

Alabama Certification #: 41320 Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

Florida Certification #: E83079 Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Louisiana Certification #: FL NELAC Reciprocity Louisiana Environmental Certificate #: 05007

Maryland Certification: #346 Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236 Montana Certification #: Cert 0074 Nebraska Certification: NE-OS-28-14

Nevada Certification: FL NELAC Reciprocity

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity Virginia Environmental Certification #: 460165

Wyoming Certification: FL NELAC Reciprocity

West Virginia Certification #: 9962C Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

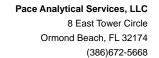
Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158 Pennsylvania Certification #: 68-00350 Connecticut Certification #: PH-0435 Maryland Certification #: 208

Rhode Island Certification #: LAO00340 Massachusetts Certification #: M-NY026 New Hampshire Certification #: 2987





SAMPLE SUMMARY

Project: LBG, Inc 42001269

Pace Project No.: 35324054

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35324054001	C-12	Drinking Water	07/13/17 10:20	07/14/17 11:10



SAMPLE ANALYTE COUNT

Project: LBG, Inc 42001269

Pace Project No.: 35324054

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35324054001	C-12	EPA 504.1	BP1	2	PASI-O
		EPA 505	MMR	3	
		EPA 508.1	NS1	18	PASI-O
		EPA 515.3	LJM	8	PASI-O
		EPA 531.1	WFH	9	PASI-O
		EPA 547	NMB	1	PASI-O
		EPA 549.2	NMB	1	PASI-O
		EPA 525.2	NS1	7	PASI-O
		EPA 548.1	JDT	1	PASI-O



ANALYTICAL RESULTS

Project: LBG, Inc 42001269

Pace Project No.: 35324054

Date: 08/07/2017 12:28 PM

1,2-Dibromoe-3-chloropropane 1,2-Dibromoe-thane (EDB)	Sample: C-12	Lab ID:	35324054001	Collecte	d: 07/13/17	7 10:20	Received: 07/	14/17 11:10 Ma	atrix: Drinking	Water
1,2-Dibromoe-3-chloropropane 1,2-Dibromoe-thane (EDB) -0,0064 -0,0064 -0,0064 -0,0064 -0,0064 -0,0065 -0,0064 -1,2-Dibromoe-thane (EDB) -0,0064 -0,0064 -0,0065 -0,0064 -1,2-Dibromoe-thane (EDB) -0,0065 -0,0064 -1,2-Dibromoe-thane (EDB) -0,0065 -0,0064 -1,2-Dibromoe-thane (EDB) -0,0065 -0,0064 -1,2-Dibromoe-thane (EDB) -0,0065 -0,0064 -1,2-Dibromoe-thane (EDB) -0,0025 -0,0064 -1,2-Dibromoe-thane (EDB) -0,0025 -0,0065 -1,2-Dibromoe-thane (EDB) -1,2-Dib	Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
1,2-Dibromoethane (EDB)	504.1 GCS EDB and DBCP	Analytical I	Method: EPA 5	04.1 Prepa	aration Meth	od: EP/	A 504.1			
Aldrin	1,2-Dibromo-3-chloropropane 1,2-Dibromoethane (EDB)		-			-				
Surrogates Fetrachloro-m-xylene (S)	505 GCS Pesticides/PCBs	Analytical I	Method: EPA 5	05 Prepara	ation Metho	d: EPA	505			
Decachlorobiphenyl (S) 68	Aldrin Surrogates	<0.025	ug/L	0.025	0.025	1	07/20/17 16:38	07/21/17 00:30	309-00-2	
Analytical Method: EPA 508.1 Preparation Method: EPA 508.1	Tetrachloro-m-xylene (S)	67	%.	30-150		1	07/20/17 16:38	07/21/17 00:30	877-09-8	
Alachlor	Decachlorobiphenyl (S)	68	%.	30-150		1	07/20/17 16:38	07/21/17 00:30	2051-24-3	
Atrazine	508.1 GCS Pesticides	Analytical I	Method: EPA 5	08.1 Prepa	aration Meth	od: EP	A 508.1			
Samma-BHC (Lindane)	Alachlor	<0.037	ug/L	0.21	0.037	1	07/21/17 15:45	07/28/17 03:50	15972-60-8	
Butachlor	Atrazine	<0.066	ug/L	0.11	0.066	1	07/21/17 15:45	07/28/17 03:50	1912-24-9	
Chlordane (Technical)	gamma-BHC (Lindane)	< 0.0032	ug/L	0.021	0.0032	1	07/21/17 15:45	07/28/17 03:50	58-89-9	
Dieldrin Co.020 Ug/L O.11 O.020 1 O7/21/17 15:45 O7/28/17 03:50 60-57-1 Endrin Co.0074 Ug/L O.011 O.0074 1 O7/21/17 15:45 O7/28/17 03:50 72-20-8 Heptachlor Co.0032 Ug/L O.042 O.013 1 O7/21/17 15:45 O7/28/17 03:50 72-20-8 Heptachlor Co.0032 Ug/L O.021 O.0032 1 O7/21/17 15:45 O7/28/17 03:50 70-44-8 Heptachlor Co.0032 Ug/L O.011 O.0032 1 O7/21/17 15:45 O7/28/17 03:50 T02-45-73 Hexachlorobenzene Co.020 Ug/L O.11 O.020 1 O7/21/17 15:45 O7/28/17 03:50 T02-45-73 Hexachlorocyclopentadiene Co.034 Ug/L O.11 O.034 1 O7/21/17 15:45 O7/28/17 03:50 T7-47-4 Methoxychlor Co.054 Ug/L O.11 O.054 1 O7/21/17 15:45 O7/28/17 03:50 T7-47-4 Methoxychlor Co.055 Ug/L O.11 O.050 1 O7/21/17 15:45 O7/28/17 03:50 T2-43-5 Metolachlor Co.055 Ug/L O.11 O.050 1 O7/21/17 15:45 O7/28/17 03:50 T2-43-5 Metolachlor Co.054 Ug/L O.11 O.050 1 O7/21/17 15:45 O7/28/17 03:50 T2-8-5 T02-8-5 T02-8-	Butachlor	<0.028	ug/L	0.11	0.028	1	07/21/17 15:45	07/28/17 03:50	23184-66-9	
Endrin	Chlordane (Technical)	<0.050	ug/L	0.21	0.050	1	07/21/17 15:45	07/28/17 03:50	57-74-9	
Heptachlor	Dieldrin	<0.020	ug/L	0.11	0.020	1	07/21/17 15:45	07/28/17 03:50	60-57-1	
Heptachlor epoxide	Endrin	<0.0074	ug/L	0.011	0.0074	1	07/21/17 15:45	07/28/17 03:50	72-20-8	
Hexachlorobenzene	Heptachlor	<0.013	ug/L	0.042	0.013	1	07/21/17 15:45	07/28/17 03:50	76-44-8	
Hexachlorocyclopentadiene	Heptachlor epoxide	<0.0032	ug/L	0.021	0.0032	1	07/21/17 15:45	07/28/17 03:50	1024-57-3	
Methoxychlor <0.054 ug/L 0.11 0.054 1 07/21/17 15:45 07/28/17 03:50 72-43-5 Metolachlor <0.050 ug/L 0.11 0.050 1 07/21/17 15:45 07/28/17 03:50 51218-45-2 PCB, Total <0.084 ug/L 0.11 0.084 1 07/21/17 15:45 07/28/17 03:50 1336-36-3 Propachlor <0.032 ug/L 0.11 0.084 1 07/21/17 15:45 07/28/17 03:50 1918-16-7 Simazine <0.073 ug/L 0.074 0.073 1 07/21/17 15:45 07/28/17 03:50 1918-16-7 Surrogates Occaphone <0.64 ug/L 1.1 0.64 1 07/21/17 15:45 07/28/17 03:50 8001-35-2 Surrogates Decachlorobiphenyl (S) 94 % 70-130 1 07/21/17 15:45 07/28/17 03:50 2051-24-3 515.3 Chlorinated Herbicides Analytical Method: EPA 515.3 Preparation Method: EPA 515.3 1 07/20/17 09:35 07/22/17 07:10 94-75-7 D	Hexachlorobenzene	<0.020	ug/L	0.11	0.020	1	07/21/17 15:45	07/28/17 03:50	118-74-1	
Methoxychlor <0.054 ug/L 0.11 0.054 1 07/21/17 15:45 07/28/17 03:50 72-43-5 Metolachlor <0.050 ug/L 0.11 0.050 1 07/21/17 15:45 07/28/17 03:50 51218-45-2 PCB, Total <0.084 ug/L 0.11 0.084 1 07/21/17 15:45 07/28/17 03:50 1336-36-3 Propachlor <0.032 ug/L 0.11 0.084 1 07/21/17 15:45 07/28/17 03:50 1336-36-3 Propachlor <0.032 ug/L 0.11 0.032 1 07/21/17 15:45 07/28/17 03:50 1918-16-7 Simazine <0.073 ug/L 0.074 0.073 1 07/21/17 15:45 07/28/17 03:50 122-34-9 Toxaphene <0.64 ug/L 1.1 0.64 1 07/21/17 15:45 07/28/17 03:50 8001-35-2 Surrogates Decachlorobiphenyl (S) 94 % 70-130 Method: EPA 515.3 Proparation Method: EPA 515.3 2,4-D <0.081 ug/L	Hexachlorocyclopentadiene	< 0.034	ug/L	0.11	0.034	1	07/21/17 15:45	07/28/17 03:50	77-47-4	
Metolachlor <0.050 ug/L 0.11 0.050 1 07/21/17 15:45 07/28/17 03:50 51218-45-2 PCB, Total <0.084	Methoxychlor	< 0.054	-	0.11	0.054	1	07/21/17 15:45	07/28/17 03:50	72-43-5	
PCB, Total vg/L 0.11 0.084 1 07/21/17 15:45 07/28/17 03:50 1336-36-3 Propachlor vg/L 0.11 0.032 1 07/21/17 15:45 07/28/17 03:50 1918-16-7 Simazine vg/L 0.074 0.073 1 07/21/17 15:45 07/28/17 03:50 122-34-9 Toxaphene vg/L 0.11 0.64 1 07/21/17 15:45 07/28/17 03:50 122-34-9 Toxaphene vg/L 0.11 0.64 1 07/21/17 15:45 07/28/17 03:50 8001-35-2 Surrogates vg/L 0.10 0.081 1 07/21/17 15:45 07/28/17 03:50 2051-24-3 St.3 Chlorinated Herbicides Analytical Method: EPA 515.3 Preparation Method: EPA 515.3 2,4-D vg/L 0.10 0.081 1 07/20/17 09:35 07/22/17 07:10 94-75-7 Dalapon vg/L 0.10 0.089 1 07/20/17 09:35 07/22/17 07:10 94-75-7 Dicamba vg/L 0.10 0.067 1 07/20/17 09:35 07/22/17 07:10 1918-00-9 Dinoseb vg/L 0.20 0.16 1 07/20/17 09:35 07/22/17 07:10 88-85-7 Pentachlorophenol vg/L 0.040 0.030 1 07/20/17 09:35 07/22/17 07:10 87-86-5 Picloram vg/L 0.10 0.094 1 07/20/17 09:35 07/22/17 07:10 1918-02-1 2,4,5-TP (Silvex) vg/L 0.16 ug/L 0.20 0.16 1 07/20/17 09:35 07/22/17 07:10 93-72-1 Surrogates vg/L vg/L 0.20 0.16 1 07/20/17 09:35 07/22/17 07:10 093-72-1 Vg/L Metolachlor	<0.050	-	0.11	0.050	1	07/21/17 15:45	07/28/17 03:50	51218-45-2		
Propachlor Co.032 Ug/L O.11 O.032 1 O7/21/17 15:45 O7/28/17 03:50 1918-16-7	PCB, Total	<0.084	-	0.11	0.084	1	07/21/17 15:45	07/28/17 03:50	1336-36-3	
Simazine	Propachlor	< 0.032	-	0.11	0.032	1	07/21/17 15:45	07/28/17 03:50	1918-16-7	
Toxaphene	Simazine	< 0.073	-	0.074	0.073	1	07/21/17 15:45	07/28/17 03:50	122-34-9	
Decachlorobiphenyl (S) 94 % 70-130 1 07/21/17 15:45 07/28/17 03:50 2051-24-3 515.3 Chlorinated Herbicides Analytical Method: EPA 515.3 Preparation Method: EPA 515.3 2,4-D <	Toxaphene	<0.64	-	1.1	0.64	1	07/21/17 15:45	07/28/17 03:50	8001-35-2	
515.3 Chlorinated Herbicides Analytical Method: EPA 515.3 Preparation Method: EPA 515.3 2,4-D Colorinated Herbicides 40.081	Surrogates									
2,4-D	Decachlorobiphenyl (S)	94	%	70-130		1	07/21/17 15:45	07/28/17 03:50	2051-24-3	
Dalapon <0.89 ug/L 1.0 0.89 1 07/20/17 09:35 07/22/17 07:10 75-99-0 Dicamba <0.067	515.3 Chlorinated Herbicides	Analytical I	Method: EPA 5	15.3 Prepa	aration Meth	od: EP	A 515.3			
Dalapon <0.89 ug/L 1.0 0.89 1 07/20/17 09:35 07/22/17 07:10 75-99-0 Dicamba <0.067	2,4-D	<0.081	ug/L	0.10	0.081	1	07/20/17 09:35	07/22/17 07:10	94-75-7	
Dicamba <0.067 ug/L 0.10 0.067 1 07/20/17 09:35 07/22/17 07:10 1918-00-9 L1 Dinoseb <0.16	Dalapon	<0.89	-	1.0		1	07/20/17 09:35	07/22/17 07:10	75-99-0	
Dinoseb <0.16 ug/L 0.20 0.16 1 07/20/17 09:35 07/22/17 07:10 88-85-7 Pentachlorophenol <0.030	·	< 0.067	-	0.10		1	07/20/17 09:35	07/22/17 07:10	1918-00-9	L1
Pentachlorophenol <0.030 ug/L 0.040 0.030 1 07/20/17 09:35 07/22/17 07:10 87-86-5 Picloram <0.094	Dinoseb	<0.16	-	0.20	0.16	1	07/20/17 09:35	07/22/17 07:10	88-85-7	
Picloram	Pentachlorophenol	<0.030	•	0.040	0.030	1	07/20/17 09:35	07/22/17 07:10	87-86-5	
2,4,5-TP (Silvex) <0.16 ug/L 0.20 0.16 1 07/20/17 09:35 07/22/17 07:10 93-72-1 Surrogates	•		-							
Surrogates	2,4,5-TP (Silvex)	<0.16	-	0.20		1	07/20/17 09:35	07/22/17 07:10	93-72-1	
2,4-DCAA (S) 94 % 70-130 1 07/20/17 09:35 07/22/17 07:10 19719-28-9			-							
	2,4-DCAA (S)	94	%	70-130		1	07/20/17 09:35	07/22/17 07:10	19719-28-9	
531.1 HPLC Carbamates Analytical Method: EPA 531.1	531.1 HPLC Carbamates	Analytical I	Method: EPA 5	31.1						
Aldicarb <0.64 ug/L 2.0 0.64 1 07/18/17 16:26 116-06-3	Aldicarb	<0.64	ug/L	2.0	0.64	1		07/18/17 16:26	116-06-3	
	Aldicarb sulfone	<0.37	ug/L	2.0		1		07/18/17 16:26	1646-88-4	
Aldicarb sulfoxide <0.59 ug/L 2.0 0.59 1 07/18/17 16:26 1646-87-3	Aldicarb sulfoxide	<0.59	ug/L	2.0	0.59	1		07/18/17 16:26	1646-87-3	
Carbofuran <0.32 ug/L 2.0 0.32 1 07/18/17 16:26 1563-66-2	Carbofuran	<0.32	ug/L	2.0	0.32	1		07/18/17 16:26	1563-66-2	



ANALYTICAL RESULTS

Project: LBG, Inc 42001269

Pace Project No.: 35324054

Date: 08/07/2017 12:28 PM

Sample: C-12	Lab ID:	35324054001	Collecte	d: 07/13/17	10:20	Received: 07/	/14/17 11:10 Ma	atrix: Drinking	Water
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
531.1 HPLC Carbamates	Analytical	Method: EPA 5	31.1						
3-Hydroxycarbofuran	<0.45	ug/L	2.0	0.45	1		07/18/17 16:26	16655-82-6	
Methomyl	<0.57	ug/L	2.0	0.57	1		07/18/17 16:26	16752-77-5	
Oxamyl	<0.55	ug/L	2.0	0.55	1		07/18/17 16:26	23135-22-0	
Carbaryl	<0.27	ug/L	2.0	0.27	1		07/18/17 16:26	63-25-2	
Surrogates									
BDMC (S)	97	%	80-120		1		07/18/17 16:26		
547 HPLC Glyphosate	Analytical	Method: EPA 5	47						
Glyphosate	<4.2	ug/L	6.0	4.2	1		07/20/17 04:57		
549.2 HPLC Paraquat Diquat	Analytical	Method: EPA 5	49.2 Prepa	aration Meth	od: EP	A 549.2			
Diquat	<0.30	ug/L	0.40	0.30	1	07/19/17 11:00	07/20/17 02:12	85-00-7	
525.2 Base Neutral Extractable	Analytical	Method: EPA 5	25.2 Prepa	aration Meth	od: EP	A 525.2			
Benzo(a)pyrene	<0.013	ug/L	0.097	0.013	1	07/25/17 10:30	07/26/17 14:41	50-32-8	L2
bis(2-Ethylhexyl)adipate	< 0.37	ug/L	1.6	0.37	1	07/25/17 10:30	07/26/17 14:41	103-23-1	
bis(2-Ethylhexyl)phthalate	< 0.49	ug/L	1.9	0.49	1	07/25/17 10:30	07/26/17 14:41	117-81-7	
Metribuzin	<0.15	ug/L	0.29	0.15	1	07/25/17 10:30	07/26/17 14:41	21087-64-9	
Surrogates		-							
1,3-Dimethyl-2-nitrobenzene(S)	123	%	70-130		1	07/25/17 10:30	07/26/17 14:41	81209	
Perylene-d12 (S)	68	%	70-130		1	07/25/17 10:30	07/26/17 14:41	1520963	S0,S8
Triphenylphosphate (S)	96	%	70-130		1	07/25/17 10:30	07/26/17 14:41	115-86-6	
548.1 GCS Endothall	Analytical	Method: EPA 5	48.1 Prepa	aration Meth	od: EP	A 548.1			
Endothall	<4.3	ug/L	9.0	4.3	1	07/20/17 18:00	07/25/17 09:23		



QUALITY CONTROL DATA

Project: LBG, Inc 42001269

Pace Project No.: 35324054

Date: 08/07/2017 12:28 PM

QC Batch: 381535 Analysis Method: EPA 531.1

QC Batch Method: EPA 531.1 Analysis Description: 531.1 HPLC Carbamate

Associated Lab Samples: 35324054001

METHOD BLANK: 2070180 Matrix: Water

Associated Lab Samples: 35324054001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
3-Hydroxycarbofuran	ug/L	<0.45	2.0	0.45	07/18/17 12:36	
Aldicarb	ug/L	< 0.64	2.0	0.64	07/18/17 12:36	
Aldicarb sulfone	ug/L	< 0.37	2.0	0.37	07/18/17 12:36	
Aldicarb sulfoxide	ug/L	< 0.59	2.0	0.59	07/18/17 12:36	
Carbaryl	ug/L	<0.27	2.0	0.27	07/18/17 12:36	
Carbofuran	ug/L	< 0.32	2.0	0.32	07/18/17 12:36	
Methomyl	ug/L	< 0.57	2.0	0.57	07/18/17 12:36	
Oxamyl	ug/L	< 0.55	2.0	0.55	07/18/17 12:36	
BDMC (S)	%	120	80-120		07/18/17 12:36	

LABORATORY CONTROL SAMPLE:	2070181	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
3-Hydroxycarbofuran	ug/L		10.3	103	80-120	
Aldicarb	ug/L	10	11.2	112	80-120	
Aldicarb sulfone	ug/L	10	10.9	109	80-120	
Aldicarb sulfoxide	ug/L	10	12.0	120	80-120	
arbaryl	ug/L	10	12.0	120	80-120	
arbofuran	ug/L	10	11.7	117	80-120	
1ethomyl	ug/L	10	10.6	106	80-120	
Dxamyl	ug/L	10	11.8	118	80-120	
DMC (S)	%			118	80-120	

MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	TE: 20701	82		2070183							
Parameter	3. Units	5323850001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec	RPD	Max RPD	Qual
3-Hydroxycarbofuran	ug/L	0.45U	10	10	10	10.2	100	102	80-120	2	20	
Aldicarb	ug/L	0.43U	10	10	10.5	10.2	105	103	80-120	3	20	
Aldicarb sulfone	ug/L	0.37U	10	10	9.5	9.8	95	98	80-120	4	20	
Aldicarb sulfoxide	ug/L	0.59U	10	10	11.2	11.0	112	110	80-120	2	20	
Carbaryl	ug/L	0.27U	10	10	12.0	11.5	120	115	80-120	4	20	
Carbofuran	ug/L	0.32U	10	10	11.3	10.5	113	105	80-120	7	20	
Methomyl	ug/L	0.57U	10	10	10.5	11.1	105	111	80-120	6	20	
Oxamyl	ug/L	0.55U	10	10	10.2	10.0	102	100	80-120	2	20	
BDMC (S)	%						103	98	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



EPA 547

Project: LBG, Inc 42001269

Pace Project No.: 35324054

QC Batch: 382091

Date: 08/07/2017 12:28 PM

QC Batch Method: EPA 547 Analysis Description: 547 HPLC Glyphosate

Associated Lab Samples: 35324054001

METHOD BLANK: 2073233 Matrix: Water

Associated Lab Samples: 35324054001

Blank Reporting
Parameter Units Result Limit MDL Analyzed Qualifiers

Analysis Method:

Glyphosate ug/L <4.2 6.0 4.2 07/20/17 02:06

LABORATORY CONTROL SAMPLE: 2073234

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Glyphosate ug/L 50 52.3 105 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2073235 2073236

MS MSD MS 35324897001 Spike Spike MS MSD MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual 0.0042U 50 50 48.2 80-120 0 30 Glyphosate ug/L 48.4 96 97 mg/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2073237 2073238

MS MSD 35324066001 Spike Spike MS MSD MS MSD % Rec Max % Rec RPD RPD Units Result Conc. Qual Parameter Conc. Result Result % Rec Limits Glyphosate <4.2 50 50 51.2 49.9 102 80-120 3 30 ug/L 100

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Qualifiers



QUALITY CONTROL DATA

Project: LBG, Inc 42001269

Pace Project No.: 35324054

QC Batch: 381399 QC Batch Method: EPA 504.1 Analysis Method:

EPA 504.1

QC Batch Method: EPA 504.

Analysis Description:

504 EDB DBCP

Associated Lab Samples: 35324054001

METHOD BLANK: 2069376

Matrix: Water

Associated Lab Samples:

Date: 08/07/2017 12:28 PM

35324054001

Blank Reporting

Limit MDL Parameter Units Result Analyzed 1,2-Dibromo-3-chloropropane < 0.0064 0.020 0.0064 07/18/17 13:43 ug/L 1,2-Dibromoethane (EDB) ug/L < 0.0075 0.010 0.0075 07/18/17 13:43

LABORATORY CONTROL SAMPLE & LCSD: 2069377 2070238 Spike LCS **LCSD** LCS **LCSD** % Rec Max Parameter Units Conc. Result Result % Rec % Rec Limits **RPD RPD** Qualifiers 1,2-Dibromo-3-chloropropane ug/L .25 109 96 70-130 12 40 0.27 0.24 1,2-Dibromoethane (EDB) .25 0.29 0.25 116 101 70-130 13 40 ug/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2070239 2070240 MSD MS 35324127010 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual 1,2-Dibromo-3ug/L < 0.0055 .44 .44 0.64 0.63 146 143 65-135 2 40 M1 chloropropane 1,2-Dibromoethane (EDB) ug/L < 0.0064 .44 .44 0.64 0.63 146 145 65-135 40 M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG, Inc 42001269

Pace Project No.: 35324054

QC Batch: 32255

QC Batch Method: EPA 505

Date: 08/07/2017 12:28 PM

Associated Lab Samples: 35324054001

Analysis Method: EPA 505

Analysis Description: 505 GCS Pesticides

METHOD BLANK: 149103 Matrix: Water

Associated Lab Samples: 35324054001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Aldrin	ug/L	<0.025	0.025	0.025	07/20/17 18:40	
Decachlorobiphenyl (S)	%.	75	30-150		07/20/17 18:40	
Tetrachloro-m-xylene (S)	%.	85	30-150		07/20/17 18:40	

LABORATORY CONTROL SAMPLE:	149104					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	.048	0.047	98	70-130	
Decachlorobiphenyl (S)	%.			95	30-150	
Tetrachloro-m-xylene (S)	%.			94	30-150	

LABORATORY CONTROL SAMPLE:	149105					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	.0095	<0.025	97	70-130	
Decachlorobiphenyl (S)	%.			89	30-150	
Tetrachloro-m-xylene (S)	%.			95	30-150	

MATRIX SPIKE SAMPLE:	149106						
		7024421001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	<0.025	.095	0.092	96	65-135	_
Decachlorobiphenyl (S)	%.				75	30-150	
Tetrachloro-m-xylene (S)	%.				97	30-150	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



EPA 508.1

Analysis Method:

Project: LBG, Inc 42001269

Pace Project No.: 35324054

Date: 08/07/2017 12:28 PM

QC Batch: 382070

QC Batch Method: EPA 508.1 Analysis Description: 508 GCS Pesticide

Associated Lab Samples: 35324054001

METHOD BLANK: 2073167 Matrix: Water

Associated Lab Samples: 35324054001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Alachlor	ug/L	<0.035	0.20	0.035	07/26/17 10:06	
Atrazine	ug/L	< 0.063	0.10	0.063	07/26/17 10:06	
Butachlor	ug/L	< 0.027	0.10	0.027	07/26/17 10:06	
Chlordane (Technical)	ug/L	< 0.047	0.20	0.047	07/26/17 10:06	
Dieldrin	ug/L	< 0.019	0.10	0.019	07/26/17 10:06	
Endrin	ug/L	< 0.0070	0.010	0.0070	07/26/17 10:06	
gamma-BHC (Lindane)	ug/L	< 0.0030	0.020	0.0030	07/26/17 10:06	
Heptachlor	ug/L	< 0.012	0.040	0.012	07/26/17 10:06	
Heptachlor epoxide	ug/L	< 0.0030	0.020	0.0030	07/26/17 10:06	
Hexachlorobenzene	ug/L	< 0.019	0.10	0.019	07/26/17 10:06	
Hexachlorocyclopentadiene	ug/L	< 0.032	0.10	0.032	07/26/17 10:06	
Methoxychlor	ug/L	< 0.051	0.10	0.051	07/26/17 10:06	
Metolachlor	ug/L	< 0.047	0.10	0.047	07/26/17 10:06	
Propachlor	ug/L	< 0.030	0.10	0.030	07/26/17 10:06	
Simazine	ug/L	< 0.069	0.070	0.069	07/26/17 10:06	
Toxaphene	ug/L	<0.61	1.0	0.61	07/26/17 10:06	
Decachlorobiphenyl (S)	%	103	70-130		07/26/17 10:06	

LABORATORY CONTROL SAMPLE:	2073168					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Alachlor	ug/L		1.0	100	70-130	
Atrazine	ug/L	1.2	1.2	97	70-130	
Butachlor	ug/L	.5	0.48	96	70-130	
Dieldrin	ug/L	.5	0.51	103	70-130	
Endrin	ug/L	.05	0.053	106	70-130	
gamma-BHC (Lindane)	ug/L	.1	0.10	102	70-130	
Heptachlor	ug/L	.2	0.18	91	70-130	
Heptachlor epoxide	ug/L	.1	0.10	100	70-130	
Hexachlorobenzene	ug/L	.5	0.46	92	70-130	
Hexachlorocyclopentadiene	ug/L	.5	0.47	94	70-130	
Methoxychlor	ug/L	.5	0.53	107	70-130	
Metolachlor	ug/L	.5	0.48	96	70-130	
Propachlor	ug/L	.5	0.48	96	70-130	
Simazine	ug/L	.88	0.78	89	70-130	
Decachlorobiphenyl (S)	%			105	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG, Inc 42001269

Pace Project No.: 35324054

Date: 08/07/2017 12:28 PM

MATRIX SPIKE & MATRIX SPII	KE DUPLICA	TE: 20749	71		2074972							
			MS	MSD								
	3	5323850001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Alachlor	ug/L	0.034U	2	2	2.0	1.9	100	97	65-135	3	40	
Atrazine	ug/L	0.061U	2.5	2.5	2.6	3.1	102	123	65-135	19	40	
Butachlor	ug/L	0.026U	1	1	0.93	0.89	93	89	65-135	4	40	
Chlordane (Technical)	ug/L	0.045U			< 0.094	< 0.094					40	
Dieldrin	ug/L	0.018U	1	1	1.0	1.0	104	104	65-135	0	40	
Endrin	ug/L	0.0067U	.1	.1	0.11	0.11	107	107	65-135	0	40	
gamma-BHC (Lindane)	ug/L	0.0029U	.2	.2	0.22	0.22	110	111	65-135	1	40	
Heptachlor	ug/L	0.012U	.4	.4	0.70	0.81	174	201	65-135	14	40	M1
Heptachlor epoxide	ug/L	0.0029U	.2	.2	0.21	0.21	104	103	65-135	0	40	
Hexachlorobenzene	ug/L	0.018U	1	1	1.0	1.1	102	111	65-135	8	40	
Hexachlorocyclopentadiene	ug/L	0.031U	1	1	1.2	1.0	116	105	65-135	10	40	
Methoxychlor	ug/L	0.049U	1	1	1.0	0.97	101	97	65-135	4	40	
Metolachlor	ug/L	0.045U	1	1	0.95	0.95	95	95	65-135	0	40	
Propachlor	ug/L	0.029U	1	1	1.0	1.2	103	123	65-135	17	40	
Simazine	ug/L	0.066U	1.8	1.8	0.62	0.68	36	39	65-135	9	40	M1
Toxaphene	ug/L	0.58U			<1.2	<1.2					40	
Decachlorobiphenyl (S)	%						94	94	70-130		40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG, Inc 42001269

Pace Project No.: 35324054

Date: 08/07/2017 12:28 PM

QC Batch: 382064 Analysis Method: EPA 515.3

QC Batch Method: EPA 515.3 Analysis Description: 5153 GCS Herbicides

Associated Lab Samples: 35324054001

METHOD BLANK: 2073155 Matrix: Water

Associated Lab Samples: 35324054001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
2,4,5-TP (Silvex)	ug/L	<0.16	0.20	0.16	07/22/17 00:29	
2,4-D	ug/L	<0.081	0.10	0.081	07/22/17 00:29	
Dalapon	ug/L	< 0.89	1.0	0.89	07/22/17 00:29	
Dicamba	ug/L	< 0.067	0.10	0.067	07/22/17 00:29	
Dinoseb	ug/L	< 0.16	0.20	0.16	07/22/17 00:29	
Pentachlorophenol	ug/L	< 0.030	0.040	0.030	07/22/17 00:29	
Picloram	ug/L	< 0.094	0.10	0.094	07/22/17 00:29	
2,4-DCAA (S)	%	88	70-130		07/22/17 00:29	

		• "				
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-TP (Silvex)	ug/L		1.0	103	70-130	
2,4-D	ug/L	.5	0.39	78	70-130	
Dalapon	ug/L	5	4.5	90	70-130	
Dicamba	ug/L	.5	0.66	132	70-130 L	_1
Dinoseb	ug/L	1	1.1	114	70-130	
Pentachlorophenol	ug/L	.2	0.20	98	70-130	
Picloram	ug/L	.5	0.50	99	70-130	
2,4-DCAA (S)	%			93	70-130	

MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	TE: 20734	78 MS	MSD	2073479							
_	_	2347613003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
2,4,5-TP (Silvex)	ug/L	ND	1	1	1.1	1.1	108	111	70-130	3	40	
2,4-D	ug/L	ND	.5	.5	0.42	0.47	84	94	70-130	11	40	
Dalapon	ug/L	ND	5	5	5.7	6.0	115	120	70-130	5	40	
Dicamba	ug/L	ND	.5	.5	0.58	0.63	117	126	70-130	7	40	
Dinoseb	ug/L	ND	1	1	1.1	1.1	105	113	70-130	7	40	
Pentachlorophenol	ug/L	ND	.2	.2	0.18	0.19	91	95	70-130	4	40	
Picloram	ug/L	ND	.5	.5	0.65	0.70	130	140	70-130	7	40 I	M1
2,4-DCAA (S)	%						98	99	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG, Inc 42001269

Pace Project No.: 35324054

Date: 08/07/2017 12:28 PM

MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	TE: 20734	80		2073481							
	3	5323949005	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
2,4,5-TP (Silvex)	ug/L	<0.16	1	1	1.1	1.1	108	110	70-130	1	40	
2,4-D	ug/L	<0.081	.5	.5	0.40	0.41	79	82	70-130	3	40	
Dalapon	ug/L	<0.89	5	5	4.7	4.8	94	95	70-130	1	40	
Dicamba	ug/L	< 0.067	.5	.5	0.51	0.63	103	127	70-130	21	40	
Dinoseb	ug/L	<0.16	1	1	1.1	1.1	110	111	70-130	1	40	
Pentachlorophenol	ug/L	< 0.030	.2	.2	0.19	0.19	96	97	70-130	1	40	
Picloram	ug/L	< 0.094	.5	.5	0.55	0.57	110	115	70-130	5	40	
2,4-DCAA (S)	%						95	93	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG, Inc 42001269

Pace Project No.: 35324054

Date: 08/07/2017 12:28 PM

QC Batch: 382937 Analysis Method: EPA 525.2

QC Batch Method: EPA 525.2 Analysis Description: 525.2 Base Neutral Extractables

Associated Lab Samples: 35324054001

METHOD BLANK: 2078153 Matrix: Water

Associated Lab Samples: 35324054001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Benzo(a)pyrene	ug/L	<0.013	0.10	0.013	07/26/17 11:53	
bis(2-Ethylhexyl)adipate	ug/L	<0.38	1.6	0.38	07/26/17 11:53	
bis(2-Ethylhexyl)phthalate	ug/L	< 0.50	2.0	0.50	07/26/17 11:53	
Metribuzin	ug/L	<0.15	0.30	0.15	07/26/17 11:53	
1,3-Dimethyl-2-nitrobenzene(S)	%	105	70-130		07/26/17 11:53	
Perylene-d12 (S)	%	84	70-130		07/26/17 11:53	
Triphenylphosphate (S)	%	83	70-130		07/26/17 11:53	

LABORATORY CONTROL SAMPLE	: 2078154					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Benzo(a)pyrene	ug/L	.4	0.26	65	70-130	L2
bis(2-Ethylhexyl)adipate	ug/L	6.4	5.4	84	70-130	
bis(2-Ethylhexyl)phthalate	ug/L	8	6.8	85	70-130	
Metribuzin	ug/L	1.2	1.2	103	70-130	
1,3-Dimethyl-2-nitrobenzene(S)	%			106	70-130	
Perylene-d12 (S)	%			75	70-130	
Triphenylphosphate (S)	%			83	70-130	

MATRIX SPIKE & MATRIX SP	IKE DUPLICA	TE: 20784	76		2078477							
			MS	MSD								
	9:	2348121001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Benzo(a)pyrene	ug/L				0.092J	0.098J					40	MO
bis(2-Ethylhexyl)adipate	ug/L				10.9	10.3				6	40	
bis(2-Ethylhexyl)phthalate	ug/L				14.0	13.5				3	40	
Metribuzin	ug/L				2.2	< 0.30					40	M1
1,3-Dimethyl-2- nitrobenzene(S)	%						110	120	70-130			
Perylene-d12 (S)	%						64	62	70-130			S0,S8
Triphenylphosphate (S)	%						83	84	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



LBG, Inc 42001269 Project:

Pace Project No.: 35324054

QC Batch: 382068

QC Batch Method: EPA 548.1 Analysis Method:

EPA 548.1

Analysis Description:

548 GCS Endothall

Associated Lab Samples: 35324054001

METHOD BLANK: 2073163 Matrix: Water

Associated Lab Samples:

35324054001

Blank

Reporting

Parameter

Units

Result

Limit

MDL

Qualifiers

Endothall

ug/L

Units

ug/L

35324366001

35324454001

Result

Result

<4.3

9.0

4.3 07/25/17 03:47

Analyzed

LABORATORY CONTROL SAMPLE: Parameter

Parameter

2073164

Spike Conc.

Spike

Conc.

Spike

Conc.

LCS Result

LCS % Rec % Rec Limits

Qualifiers

Endothall

Units

ug/L

Units

ug/L

2074052

2074053

52.4

41.5

80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

MS MSD

50

Spike Conc.

50

MS MSD Result Result

MS % Rec

MSD % Rec

98

% Rec Limits

Max RPD

Endothall

4.3U

MS

50

2074055

49.0

83

80-120

30

Qual

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

Date: 08/07/2017 12:28 PM

2074054

MSD

Spike Conc.

MSD

MS % Rec

105

% Rec

Parameter Endothall

0.0043U

50

Result Result

% Rec

MSD

Limits

30 M1

mg/L

50

<4.3

0

0

80-120

<4.3

MS

Max RPD RPD

RPD

Qual

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REPORT OF LABORATORY ANALYSIS

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG, Inc 42001269

Pace Project No.: 35324054

Date: 08/07/2017 12:28 PM

QC Batch: 381794 Analysis Method: EPA 549.2

QC Batch Method: EPA 549.2 Analysis Description: 549 HPLC Paraquat Diquat

Associated Lab Samples: 35324054001

METHOD BLANK: 2071478 Matrix: Water

Associated Lab Samples: 35324054001

Blank Reporting
Parameter Units Result Limit MDL Analyzed Qualifiers

Diquat ug/L <0.30 0.40 0.30 07/20/17 00:32

LABORATORY CONTROL SAMPLE: 2071479

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Diquat ug/L 2 1.6 82 70-130

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2071882 2071883

MS MSD 35324366001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual Diquat 2 2 1.7 1.7 70-130 0 30 ug/L 0.30U 84 84

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2071884 2071885

MS MSD MS MSD MS MSD 35324454001 Spike Spike % Rec Max Parameter % Rec RPD Units Result Conc. Conc. Result Result % Rec Limits RPD Qual 0.00030U 2 Diquat ug/L 2 0.60 0.84 30 42 70-130 35 30 M1,R1 mg/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: LBG, Inc 42001269

Pace Project No.: 35324054

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-O Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

Date: 08/07/2017 12:28 PM

L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
MO	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

S0 Surrogate recovery outside laboratory control limits.

S8 Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-extraction and/or re-analysis)



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LBG, Inc 42001269

Pace Project No.: 35324054

Date: 08/07/2017 12:28 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35324054001	C-12	EPA 504.1	381399	EPA 504.1	381607
35324054001	C-12	EPA 505	32255	EPA 505	32334
35324054001	C-12	EPA 508.1	382070	EPA 508.1	382791
35324054001	C-12	EPA 515.3	382064	EPA 515.3	382572
35324054001	C-12	EPA 531.1	381535		
35324054001	C-12	EPA 547	382091		
35324054001	C-12	EPA 549.2	381794	EPA 549.2	382025
35324054001	C-12	EPA 525.2	382937	EPA 525.2	383335
35324054001	C-12	EPA 548.1	382068	EPA 548.1	382953

N. None
O - Annao2
P. Na204S
P. Na204S
Q. Na2SO3
R. Na2SSSO3
S. H2SO4
T. TSP Dodecahydrate
U. Acetone
W- MCAA
W- ph 4-5
Z. other (specify) Laboratories Inc. 10.01 Special Instructions/Note: Months EnviroTest Company Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Month Company 186 Preservation Codes: A - HCL
B - NaOH
C - Zn Acetate
C - Zn Acetate
D - Nitric Acid
E - NanSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid STL Job #: 420-123595-2 Page: Page 1 of 1 COC No: 420-9123.1 I - Ice J - DI Water K - EDTA L - EDA 0 Total Number of containers 13 Date/Time: Date/Time: Method of Shipment: Carrier Tracking No(s): Analysis Requested × SUBCONTRACT/ Dioxin Cooler Temperature(s) °C and Other Remarks: × SUBCONTRACT/ 549 Special Instructions/QC Requirements: × SUBCONTRACTI 548 × **Custody Record** SUBCONTRACTI 547 r@envirotestlaboratories.com × SUBCONTRACTI 508 × SUBCONTRACT/ 525.2 Semivolatile Organics × SUBCONTRACT/ 531.1 Carbamate Pesticides in DW Received by: Received by: Received by × × SUBCONTRACT/ 515 Chlorinated Acids Debra Time: Field Filtered Sample (Yes or No) BT-Tissue, A-Air Preservation Code: Matrix Water Company 7113/1103 Radiological G=grab) (C=comp, WO#: 35324054 Sample Type 1446 Sample 10:20 Sto Ist Date: Due Date Requested: 7/25/2017 TAT Requested (days): Unknown Sample Date 7/13/17 Project #: 42001269 SSOW#: Date/Time: WO #: 35324054 Poison B Skin Irritant Client Information (Sub Contract Lab) Deliverable Requested: I, II, III, IV, Other (specify) C - 12 (420-123595-2) Custody Seal No. EnviroTest Laboratories, Inc. Sample Identification Client ID (Lab ID) Newburgh, NY 12550 Phone (845) 562-0890 Fax (845) 562-0841 ☐ Non-Hazard ☐ Flammable Possible Hazard Identification Pace Analytical Ormond Beach Empty Kit Relinquished by: Vcustody Seals Intact: △ Yes △ No 315 Fullerton Avenue 8 East Tower Circle, Shipping/Receiving Phone: |111-222-3333(Tel) City: Ormond Beach Selinquished by: Reinquished by: 65 Anduished by: Project Name: LBG, Inc. Client Contact: State, Zip: FL, 32174



Document Name: Sample Condition Upon Receipt Form Document No .: F-FL-C-007 rev. 11

Dodument Revised February 6, 2017 Issuing Authority Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project # Date and Initials of person: Due Date: 07/28/17 Examining contents: **Project Manager:** PM: VEG Label: CLIENT: EVNTES Client: Deliver:_ pH:_ Thermometer Used: TEV Date: >(14(17) Cooler #1 Temp. o (Visual) (Correction Factor) (Actual) Samples on ice, cooling process has begun Cooler #2 Temp.°C 10.3 (Visual) +0 1 (Correction Factor) 10.4 (Actual) Samples on ice, cooling process has begun Cooler #3 Temp.°C 9.4 (Visual) 40.1 (Correction Factor) 9.5 (Actual) Samples on ice, cooling process has begun Cooler #4 Temp.°C (Visual) (Correction Factor) (Actual) Samples on ice, cooling process has begun Cooler #5 Temp.°C __(Visual) _____ (Correction Factor) Samples on ice, cooling process has begun Cooler #6 Temp.°C (Visual) (Correction Factor) (Actual) Samples on ice, cooling process has begun Fed Ex UPS USPS Client Commercial Pace Other_ Shipping Method: ☐ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☐ Ground ☐ Other Billing: ☐ Sender □ Recipient ☐ Third Party ☐ Unknown Tracking # 77910 2010 4340/77962609 3485 Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No Blue None Packing Material: Bubble Wrap Bubble Bags □None □Other Samples shorted to lab (If Yes, complete) Shorted Date: Shorted Time: Qty: Comments: ØYes □ No □N/A Chain of Custody Present Chain of Custody Filled Out ØYes □ No □N/A Relinquished Signature & Sampler Name COC DY'es □ No □N/A Samples Arrived within Hold Time ☑Yes ☐ No ☐N/A Rush TAT requested on COC □Yes ZNo □N/A Sufficient Volume ØŶes □ No □N/A Correct Containers Used ØYes □ No □N/A Containers Intact ☑Yes ☐ No ☐N/A Sample Labels match COC (sample IDs & date/time of collection) ☑Yes ☐ No ☐N/A All containers needing acid/base preservation have been Preservation Information: checked DYes □ No □N/A Preservative: All Containers needing preservation are found to be in Lot #/Trace #: compliance with EPA recommendation: QYes □ No □N/A Date: Exceptions: VOA, Coliform, TOC, O&G, Carbamates Initials: Headspace in VOA Vials? (>6mm): □Yes □ No □N/A Trip Blank Present: □Yes □ No □N/A Client Notification/ Resolution: Person Contacted: Date/Time: Comments/ Resolution (use back for additional comments): aray to Run out Project Manager Review:

Date:

Page 21 of 21



Pace Analytical Services, Inc.

1700 Elm Street Minneapolis, MN 55414 Phone: 612.607.1700

Fax: 612.607.6444

Report Prepared for:

Bo Garcia PASI Florida 8 East Tower Circle Ormond Beach FL 32174

> **REPORT OF LABORATORY ANALYSIS FOR** 2,3,7,8-TCDD

Report Summary:

This report contains results of one drinking water sample analyzed to determine 2,3,7,8-TCDD content. This sample was analyzed according to Method 1613 by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

Report Prepared Date:

July 28, 2017

Report Information:

Pace Project #: 10396111

Sample Receipt Date: 07/18/2017

Client Project #: 35324054

Client Sub PO #: N/A **State Cert #: 11647**

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 Drinking Water Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Sarah Platzer, your Pace Project Manager.

This report has been reviewed by:

July 28, 2017

Sarah Platzer, Project Manager 612-607-6451 (612) 607-6444 (fax) sarah.platzer@pacelabs.com



Report of Laboratory Analysis

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The results relate only to the samples included in this report.



Tel: 612-607-1700 Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Montana	CERT0092
Alabama	40770	Nebraska	NE-OS-18-06
Alaska	MN00064	Nevada	MN00064
Alaska	UST-078	New Jersey (NE	MN002
Arizona	AZ0014	New York (NEL	11647
Arkansas	88-0680	New hampshire	2081
CNMI Saipan	MP0003	North Carolina	27700
California	MN00064	North Carolina	530
Colorado	MN00064	North Dakota	R-036
Connecticut	PH-0256	Ohio	41244
EPA Region 8	8TMS-L	Ohio VAP	CL101
Florida (NELAP	E87605	Oklahoma	9507
Georgia (EDP)	959	Oregon (ELAP)	MN200001
Guam EPA	959	Oregon (OREL	MN300001
Hawaii	MN00064	Pennsylvania	68-00563
Idaho	MN00064	Puerto Rico	MN00064
Illinois	200011	South Carolina	74003001
Indiana	C-MN-01	Tennessee	TN02818
Iowa	368	Texas	T104704192
Kansas	E-10167	Utah (NELAP)	MN00064
Kentucky	90062	Virginia	460163
Louisiana	03086	Washington	C486
Louisiana	MN00064	West Virginia #	9952C
Maryland	322	West Virginia D	382
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-L
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

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Tel: 612-607-1700 Fax: 612- 607-6444

Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X =%D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

Chain of Custody



ကို <mark>⊝ Workorder</mark> :																		-T				CONTRACTOR OF THE PROPERTY OF
			Name:LBG, Inc				(Owne	er Rec	eivec	l Da	te:	7/1	4/20)17	Re	suli	ts R	eque	este	d By	r: 7/28/2017
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3																						
4																						
5																Ï						
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^{***}In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical*

Document Name: Sample Condition Upon Receipt Form

Document No.: -MN-L-213-rev.20 Document Revised: 19Dec2016 Page 1 of 2

Issuing Authority: Pace Minnesota Quality Office

	F-IVI	N-L-213-r	ev. 20	Pace Minnesota Quality Office				
Courier: Commercial Tracking Number: Client Name: Client Name: Client Name: Client Name: UPS SpeeDee T422-5599-	BEGAL USPS Other:_	P Clie	roject f	WO#:10396111 				
Custody Seal on Cooler/Box Present?	s	eals Intac	t?	Yes Optional: Proj. Due Date: Proj. Name:				
Packing Material: Bubble Wrap Bubble Bags	□None	∕ Ot	her:	Temp Blank? ☐Yes ☑No				
Thermometer 151401163 Used: 151401164	Туре	of Ice:	□Wet	☐ Blue ☐ None ☐ Samples on ice, cooling process has begun				
Cooler Temp Read (°C): Cooler Temp Corrected (°C): Date and initials of Person Examining Contents: No N/A Temp should be above freezing to 6°C Correction Factor: Date and initials of Person Examining Contents: No N/A USDA Regulated Soil (N/A, water sample) Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? No including Hawaii and Puerto Rico)? No including Hawaii and Puerto Rico)? No include with SCUR/COC paperwork.								
				COMMENTS:				
Chain of Custody Present?	¥¥es	□No		1.				
Chain of Custody Filled Out?	Ves	□No		2.				
Chain of Custody Relinquished?	Ves	□No		3.				
Sampler Name and/or Signature on COC?	Yes	□No	□n/a	4.				
Samples Arrived within Hold Time?	√Eves	□No		5.				
Short Hold Time Analysis (<72 hr)?	□Yes	No		6.				
Rush Turn Around Time Requested?	Yes	No		7.				
Sufficient Volume?	Yes	□No		8.				
Correct Containers Used?	Yes	□No		9.				
-Pace Containers Used?	Yes	□No						
Containers Intact?	Yes	□No	1	10.				
Filtered Volume Received for Dissolved Tests?	☐Yes	□No	N/A	11. Note if sediment is visible in the dissolved container				
Sample Labels Match COC?	Yes	□No	1	12.				
-Includes Date/Time/ID/Analysis Matrix:				·				
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation?	∐Yes	□No /	X N/A	13. ☐HNO₃ ☐H₂SO₄ ☐NaOH Positive for Res. Chlorine? Y N Sample #				
(HNO₃, H₂SO₄, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC Oil and Grease,	∐Yes		A/N/A	Initial when Lot # of added				
DRO/8015 (water) and Dioxin.	Yes	□No	N/A	completed: preservative:				
Headspace in VOA Vials (>6mm)?	☐Yes		N/A	14.				
Trip Blank Present? Trip Blank Custody Seals Present?	∐Yes	□No ;	N/A	15.				
Pace Trip Blank Lot # (if purchased):	∐Yes	∐No _	WW/A					
CLIENT NOTIFICATION/RESOLUTION				Field Data Required? Yes No				
Person Contacted:				Date/Times				
Comments/Resolution:			• • • • • • • • • • • • • • • • • • • •	Datey fillie.				

Project Manager Review: Date: 7/19/2017

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).



Drinking Water Analysis Results 2,3,7,8-TCDD -- USEPA Method 1613B

Tel: 612-607-1700 Fax: 612-607-6444

Sample ID...... C-12

Client...... PASI Florida Lab Sample ID.... 35324054001 Date Collected.....07/13/2017 Date Received.....07/18/2017 Date Extracted.....07/25/2017

	Sample C-12	Method Blank	Lab Spike	Lab Spike Dup
[2,3,7,8-TCDD]	ND	ND		
EDL	2.2 pg/L	3.1 pg/L		
2,3,7,8-TCDD Recovery			102%	118%
Spike Recovery Limit			73-146%	73-146%
RPD			14	1.4%
IS Recovery	56%	65%	68%	71%
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	82%	82%	74%	90%
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename	Y170727B_30	Y170727B_14	Y170727B_12	Y170727B_13
Analysis Date	07/28/2017	07/27/2017	07/27/2017	07/27/2017
Analysis Time	06:21	22:43	21:45	22:14
Analyst	SMT	SMT	SMT	SMT
Volume	0.941L	1.010L	1.048L	1.047L
Dilution	NA	NA	NA	NA
ICAL Date	07/27/2017	07/27/2017	07/27/2017	07/27/2017
CCAL Filename	Y170727B_11	Y170727B_11	Y170727B_11	Y170727B_11

! = Outside the Control Limits

ND = Not Detected

EDL = Estimated Detection Limit

Limits = Control Limits from Method 1613 (10/94 Revision), Tables 6A and 7A

RPD = Relative Percent Difference of Lab Spike Recoveries

IS = Internal Standard [2,3,7,8-TCDD- $^{13}C_{12}$] CS = Cleanup Standard [2,3,7,8-TCDD- $^{37}Cl_4$]

Project No.....10396111

C-14



ANALYTICAL REPORT

Job Number: 420-123595-3 SDG Number: Clovewood Job Description: LBG, Inc.

For:

Leggette, Brashears & Graham, Inc. 4 Research Drive Shelton, CT 06464

Attention: Stacy Stieber

Debra Bayer

Subbra 50

Customer Service Manager dbayer@envirotestlaboratories.com

08/24/2017

NYSDOH ELAP does not certify for all parameters. EnviroTest Laboratories does hold certification for all analytes where certification is offered by ELAP unless otherwise specified in the Certification Information section of this report. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval of the laboratory. EnviroTest Laboratories Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our laboratory. All questions regarding this report should be directed to the EnviroTest Customer Service Representative.

EnviroTest Laboratories, Inc. Certifications and Approvals: NYSDOH 10142, NJDEP NY015, CTDOPH PH-0554



METHOD SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-3 SDG Number: Clovewood

Description	Lab Location	Method	Preparation Method
Matrix: Water			
ICP Metals by 200.7 Sample Filtration Total Metals Digestion for 200.7 200 Series Drinking Water Prep Determination Step	EnvTest EnvTest EnvTest EnvTest	EPA 200.7 Rev	4.4 FILTRATION EPA 200.7 EPA 200.7/200.8
ICPMS Metals by 200.8 200 Series Drinking Water Prep Determination Step Total Metals Digestion for 200.8	EnvTest EnvTest EnvTest	EPA 200.8 Rev.	5.4 EPA 200.7/200.8 EPA 200.8
Mercury in Water by CVAA Digestion for CVAA Mercury in Waters	EnvTest EnvTest	EPA 245.1 Rev.	3.0 EPA 245.1
Anions by Ion Chromatography	EnvTest	MCAWW 300.0	
Anions by Ion Chromatography	EnvTest	EPA 300.0 Rev.	2.1
EPA 504.1 EDB	Pace	EPA 504.1	
EPA 505 Pesticide/PCB	Pace	EPA 505	
EPA 515 Chlorinated Acids	Pace	EPA 515	
Purgeable Organic Compounds in Water by GC/MS	EnvTest	EPA-DW 524.2	
EPA 525.2 Semivolatile Organics	Pace	EPA 525.2	
EPA 531.1 Carbamate Pesticides in Drinki	Pace	EPA 531.1	
EPA 900 Series GA/GB/RA226/RA228/Gamma	Radios	EPA 900	
Uranium	Radios	STL-STL EPA	
Heterotropic Plate Count	EnvTest	IDEXX SIMPLA	TE
Odor, Threshold Test	EnvTest	SM20 SM 2150	В
Alkalinity, Titration Method	EnvTest	SM21 SM 2320	B-97,-11
Corrosivity LSI Calculation	EnvTest	SM20 SM 2330	В
Hardness by Calculation	EnvTest	SM20 SM 2340	B-97,-11
Н	EnvTest	SM19 SM 4500	H+ B
Nitrite by Colormetric	EnvTest	SM20 SM 4500	NO2 B
Total Coliform and Escherichia coli by Colilert - Presence/Absence	EnvTest	SMWW SM 922	23
Apparent Color	EnvTest	SM21 SM2120E	3-01,11
Furbidity	EnvTest	SM21 SM2130E	3-01,11
Total Dissolved Solids (Dried at 180 °C)	EnvTest	SM21 SM25400	C-97,11
Cyanide, Total: Colorimetric Method Cyanide: Distillation	EnvTest EnvTest	SM21 SM4500	CN E-99 SM21 SM 4500 CN C
General Sub Contract Method	Pace	Subcontract	
General Sub Contract Method	Radios	Subcontract	

METHOD SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-3 SDG Number: Clovewood

Description Lab Location Method Preparation Method

Lab References:

EnvTest = EnviroTest

Pace = Pace Analytical - Ormond Beach

Radios = Pace Analytical Services, Inc.

Method References:

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

IDEXX =

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM19 = "Standard Methods For The Examination Of Water And Wastewater", 19Th Edition, 1995."

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SM21 = "Standard Methods For The Examination Of Water And Wastewater", 21st Edition

SMWW = "Standard Methods for the Examination of Water and Wastewater"

STL-STL = Severn Trent Laboratories, St. Louis, Facility Standard Operating Procedure.

METHOD / ANALYST SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-3 SDG Number: Clovewood

Method	Analyst	Analyst ID
EPA-DW 524.2	Andersen, Eric C	ECA
EPA 200.7 Rev 4.4	Sirico, Derek	DS
EPA 200.8 Rev.5.4	Sirico, Derek	DS
EPA 245.1 Rev.3.0	Sirico, Derek	DS
SM20 SM 2340B-97,-11	Sirico, Derek	DS
MCAWW 300.0	Luis, Carlos	CL
EPA 300.0 Rev. 2.1	Luis, Carlos	CL
IDEXX SIMPLATE	O'Driscoll, Kate	ко
SM20 SM 2150B	O'Driscoll, Kate	ко
SM21 SM 2320B-97,-11	Tramantano, Matt	MT
SM20 SM 2330B	Cusack, Renee	RC
SM19 SM 4500 H+ B	O'Driscoll, Kate	КО
SM20 SM 4500 NO2 B	Grant, Ameya	AG
SMWW SM 9223	Grant, Ameya	AG
SM21 SM2120B-01,11	O'Driscoll, Kate	КО
SM21 SM2130B-01,11	O'Driscoll, Kate	КО
SM21 SM2540C-97,11	O'Driscoll, Kate	КО
SM21 SM4500 CN E-99	Osborne, Amy	AO

SAMPLE SUMMARY

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-3

SDG Number: Clovewood

		Date/Time	Date/Time	
Lab Sample ID	Client Sample ID	Client Matrix	Sampled	Received
420-123595-3	C - 14	Drinking Water	07/13/2017 0840	07/13/2017 1000

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-3

Sdg Number: Clovewood

Client Sample ID: C - 14

 Lab Sample ID:
 420-123595-3
 Date Sampled:
 07/13/2017
 0840

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

524.2 Purgeable Organic Compounds in Water by GC/MS

Method: 524.2 Analysis Batch: 420-112453 Instrument ID: Agilent 7890A/5975C

Preparation: N/A Lab File ID: X071420.D

Dilution: 1.0 Initial Weight/Volume: 5 mL

Date Analyzed: 07/14/2017 1916 Final Weight/Volume: 5 mL

Date Prepared: N/A

Analyte	Result (ug/L) Qualifier	RL
1,1,1,2-Tetrachloroethane	<0.500	0.500
1,1,1-Trichloroethane	<0.500	0.500
1,1,2,2-Tetrachloroethane	<0.500	0.500
1,1,2-Trichloroethane	<0.500	0.500
1,1-Dichloroethane	<0.500	0.500
1,1-Dichloroethene	<0.500	0.500
1,1-Dichloropropene	<0.500	0.500
1,2,3-Trichlorobenzene	<0.500	0.500
1,2,3-Trichloropropane	<0.500	0.500
1,2,4-Trichlorobenzene	<0.500	0.500
1,2,4-Trimethylbenzene	<0.500	0.500
1,2-Dichloroethane	<0.500	0.500
1,2-Dichlorobenzene	<0.500	0.500
1,2-Dichloropropane	<0.500	0.500
1,3-Dichloropropane	<0.500	0.500
1,4-Dichlorobenzene	<0.500	0.500
2,2-Dichloropropane	<0.500	0.500
Benzene	<0.500	0.500
Bromobenzene	<0.500	0.500
Bromochloromethane	<0.500	0.500
Bromomethane	<0.500	0.500
n-Butylbenzene	<0.500	0.500
cis-1,2-Dichloroethene	<0.500	0.500
cis-1,3-Dichloropropene	<0.500	0.500
Carbon tetrachloride	<0.500	0.500
Chlorobenzene	<0.500	0.500
Chloroethane	<0.500	0.500
Chloromethane	<0.500	0.500
Dibromomethane	<0.500	0.500
Ethylbenzene	<0.500	0.500
Dichlorodifluoromethane	<0.500	0.500
Hexachlorobutadiene	<0.500	0.500
Isopropylbenzene	<0.500	0.500
p-Isopropyltoluene	<0.500	0.500
Methylene Chloride	<0.500	0.500
m-Xylene & p-Xylene	<1.00	1.00
Methyl tert-butyl ether	<0.500	0.500
o-Xylene	<0.500	0.500
Tetrachloroethene	<0.500	0.500
Toluene	<0.500	0.500
trans-1,2-Dichloroethene	<0.500	0.500
trans-1,3-Dichloropropene	<0.500	0.500
Trichloroethene	<0.500	0.500
tert-Butylbenzene	<0.500	0.500

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-3

Sdg Number: Clovewood

Client Sample ID: C - 14

 Lab Sample ID:
 420-123595-3
 Date Sampled:
 07/13/2017
 0840

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

524.2 Purgeable Organic Compounds in Water by GC/MS

Method: 524.2 Analysis Batch: 420-112453 Instrument ID: Agilent 7890A/5975C

Preparation: N/A Lab File ID: X071420.D Unitial Weight/Volume: 5 mL

Date Analyzed: 07/14/2017 1916 Final Weight/Volume: 5 mL

Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	
Trichlorofluoromethane	<0.500		0.500	
Vinyl chloride	<0.500		0.500	
Xylenes, Total	<1.50		1.50	
Styrene	<0.500		0.500	
sec-Butylbenzene	<0.500		0.500	
1,3,5-Trimethylbenzene	<0.500		0.500	
N-Propylbenzene	<0.500		0.500	
1,3-Dichlorobenzene	<0.500		0.500	
2-Chlorotoluene	<0.500		0.500	
4-Chlorotoluene	<0.500		0.500	
Surrogate	%Rec		Acceptance Limits	
4-Bromofluorobenzene	94		71 - 120	
Toluene-d8 (Surr)	110		79 - 121	
1,2-Dichloroethane-d4 (Surr)	122		70 - 128	

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-3

Sdg Number: Clovewood

Client	Sample	ID:	С-	14
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 Lab Sample ID:
 420-123595-3
 Date Sampled:
 07/13/2017 0840

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017 1000

200.7 Rev 4.4 ICP Metals by 200.7

Method:200.7 Rev 4.4Analysis Batch: 420-112534Instrument ID:Thermo ICPPreparation:200.7/200.8Prep Batch: 420-112519Lab File ID:N/A

Dilution: 1.0 Initial Weight/Volume: 50 mL

Date Analyzed: 07/18/2017 1839 Final Weight/Volume: 50 mL Date Prepared: 07/17/2017 1800

Result (ug/L) Qualifier RL Analyte 1190 60.0 Iron g Manganese 281 10.0 Sodium 16500 200 20.0 Zinc 37.0

200.7 Rev 4.4 ICP Metals by 200.7-Dissolved

Method: 200.7 Rev 4.4 Analysis Batch: 420-112597 Instrument ID: Thermo ICP

Preparation: 200.7 Prep Batch: 420-112501 Lab File ID: N/A
Dilution: 1.0 Lab File ID: N/A
Initial Weight/Volume: 50 mL

Date Analyzed: 07/19/2017 1841 Final Weight/Volume: 50 mL

Date Prepared: 07/17/2017 1505

 Analyte
 Result (ug/L)
 Qualifier
 RL

 Iron
 <60.0</td>
 60.0

 Manganese
 285
 10.0

200.8 Rev.5.4 ICPMS Metals by 200.8

Method: 200.8 Rev.5.4 Analysis Batch: 420-112536 Instrument ID: Perkin Elmer ELAN

 Preparation:
 200.7/200.8
 Prep Batch: 420-112520
 Lab File ID:
 N/A

Dilution: 1.0 Initial Weight/Volume: 50 mL

Date Analyzed: 07/18/2017 1726 Final Weight/Volume: 50 mL

 Date Prepared:
 07/17/2017 1800

 Analyte
 Result (ug/L)
 Qualifier
 RL

 Lead
 <1.00</td>
 1.00

Silver <1.00 1.00 Arsenic <1.40 1.40 Beryllium < 0.300 0.300 Cadmium <1.00 1.00 Chromium <7.00 7.00 Nickel 0.871 0.500 < 0.400 0.400 Antimony Thallium < 0.300 0.300 2.00 Barium 13.7 Selenium < 2.00 2.00

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-3

Sdg Number: Clovewood

Client Sample ID: C - 14

 Lab Sample ID:
 420-123595-3
 Date Sampled:
 07/13/2017
 0840

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

245.1 Rev.3.0 Mercury in Water by CVAA

Method: 245.1 Rev.3.0

Preparation: 245.1 Dilution: 1.0

Date Analyzed: 07/18/2017 1213

Date Prepared: 07/17/2017 1115

Analysis Batch: 420-112511 Instrument ID: Perkin Elmer FIMS
Prep Batch: 420-112451 Lab File ID: N/A

12451 Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte Result (ug/L) Qualifier RL

Mercury <0.200 0.200

SM 2340B-97,-11 Hardness by Calculation

Method: SM 2340B-97,-11

Preparation: N/A Dilution: 1.0

Date Analyzed: 07/18/2017 1839

Date Prepared: N/A

Analysis Batch: 420-112542 Instrument ID: None

Lab File ID: N/A
Initial Weight/Volume:

Final Weight/Volume:

Calcium hardness as calcium carbonate 60.5 1.25

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-3

Sdg Number: Clovewood

Method

SM 9223

Rin	loav
	UM V

Client Sample ID: C - 14

Escherichia coli

Lab Sample ID: 420-123595-3 Client Matrix: Drinking Water Date Sampled: 07/13/2017 0840 Date Received: 07/13/2017 1000

Dil

1.0

Analyte Result Qual Units

Coliform, Total Absent CFU/100mL

Absent CFU/100mL

Anly Batch: 420-112380 Date Analyzed 07/13/2017 1510

Absent CFU/100mL

Anly Batch: 420-112380 Date Analyzed 07/13/2017 1510

00mL 1.0 SM 9223

Analyte Result Qual Units RL Dil Method
Heterotrophic Plate Count 42.0 CFU/mL 2.00 1.0 SIMPLATE

Anly Batch: 420-112413 Date Analyzed 07/13/2017 1550

General Chemistry

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-3

Sdg Number: Clovewood

General Chemistry	General	Chemistry
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Client Sample ID: C - 14

Lab Sample ID: 420-123595-3 Client Matrix: Drinking Water Date Sampled: 07/13/2017 0840

Date Received: 07/13/2017 1000

 Analyte
 Result
 Qual
 Units
 RL
 Dil
 Method

 Nitrate as N
 <0.250</td>
 mg/L
 0.250
 1.0
 300.0

Anly Batch: 420-112412 Date Analyzed 07/13/2017 1644

 Analyte
 Result
 Qual
 Units
 Dil
 Method

 Langelier Index
 -0.690
 NONE
 1.0
 SM 2330B

Anly Batch: 420-112765 Date Analyzed 07/26/2017 1302

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-3

Sdg Number: Clovewood

General Chemistry

Client Sample ID: C - 14

 Lab Sample ID:
 420-123595-3
 Date Sampled:
 07/13/2017 0840

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017 1000

Analyte	Result	Qual Units	RL	Dil	Method
	123	mg/L	5.00	1.0	SM 2320B-97,-11
Alkalinity	Anly Batch: 420-112669	Date Analyzed 07/21/2017 1730	5.00	1.0	SIVI 2320B-97,-11
	Ally Batch. 420-112009	Date Analyzed 6772 1726 17 1766			
Total Dissolved Solids	152	mg/L	5.00	1.0	SM2540C-97,11
	Anly Batch: 420-112602	Date Analyzed 07/20/2016 1700			
Chloride	2.45	mg/L	1.50	1.0	300.0 Rev. 2.1
	Anly Batch: 420-112412	Date Analyzed 07/13/2017 1644			
Sulfate	12.3	mg/L	5.00	1.0	300.0 Rev. 2.1
Cunate	Anly Batch: 420-112412	Date Analyzed 07/13/2017 1644	0.00	1.0	000.011.07. 2.1
	· · · · , - • · · · · · · · · · · · · · · · · · ·	,			
Fluoride	<0.500	mg/L	0.500	1.0	300.0 Rev. 2.1
	Anly Batch: 420-112412	Date Analyzed 07/13/2017 1644			
0 11 7.1				4.0	0144500 0145 00
Cyanide, Total	<0.00500	mg/L	0.00500	1.0	SM4500 CN E-99
	Anly Batch: 420-112524	Date Analyzed 07/18/2017 1400 Date Prepared: 07/14/2017 1300			
Apparent Color	Prep Batch: 20.0	Date Prepared: 07/14/2017 1300 g Pt-Co	2.00	1.0	SM2120B-01,11
Apparent Color	Anly Batch: 420-112486	Date Analyzed 07/13/2017 1648	2.00	1.0	OWE 120D-01,11
	,	,			
pH@color measurement	7.19	SU	2.00	1.0	SM2120B-01,11
	Anly Batch: 420-112486	Date Analyzed 07/13/2017 1648			
—	44.0		0.400	4.0	01404000 04 44
Turbidity	11.6	g NTU Date Analyzed 07/13/2017 1812	0.100	1.0	SM2130B-01,11
	Anly Batch: 420-112420	Date Analyzed 07/13/2017 1812			
Odor	1.00	T.O.N.	1.00	1.0	SM 2150B
	Anly Batch: 420-112485	Date Analyzed 07/13/2017 1800			
Temp @ Odor Measurem	ent 60.0	Degrees C	5.00	1.0	SM 2150B
	Anly Batch: 420-112485	Date Analyzed 07/13/2017 1800			
рН	7.19	H SU	0.200	1.0	SM 4500 H+ B
μπ	Anly Batch: 420-112487	Date Analyzed 07/13/2017 1747	0.200	1.0	3W 4300 TI+ B
	Ailly Baton: 420-112407	Bate Analyzed 67716/2617 1717			
Temp @ pH Measuremer	nt 17.1	Degrees C	5.00	1.0	SM 4500 H+ B
	Anly Batch: 420-112487	Date Analyzed 07/13/2017 1747			
Nitrite as N	<0.0100	mg/L	0.0100	1.0	SM 4500 NO2 B
	Anly Batch: 420-112510	Date Analyzed 07/14/2017 1047			

DATA REPORTING QUALIFIERS

Client: Leggette, Brashears & Graham, Inc.

Job Number: Sdg Number: Clovewood

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ter standards
nd the specified holding
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Certification Information

Client: Leggette, Brashears & Graham, Inc. Job Number:

Sdg Number: Clovewood

The following analytes are Not Part of the ELAP scope of accreditation

Sulfur, Tungsten, Silicon, Bicarbonate Alkalinity, 7 Day BOD 5210C, 28 Day BOD, Soluble BOD, Carbon Dioxide, Carbonate Alkalinity, CBOD Soluble, Chlorine, Cyanide (WAD), Ferrous Iron, Ferric Iron, Total Nitrogen, Total Organic Nitrogen, Dissolved Oxygen, pH, Phenolphthalein Alkalinity, Solids (Fixed), Solids (Percent), Solids (Percent Moisture), Solids (Percent Volatile), Solids (Volatile Suspended), Temperature, TKN (Soluble), COD (Soluble), Total Inorganic Carbon, Volatile Acids as Acetic Acid, 2-Aminopyridine, 3-Picoline, 1-Methyl-2-pyrrilidinone, Aziridine, Dimethyl sulfoxide, 1-Chlorohexane, Iron Bacteria, Salmonella, & Sulfur Reducing Bacteria.

The following analytes are Not Part of ELAP Potable Water scope of accreditation

Cobalt (200.7, 200.8), Tin (200.7), Strontium (200.7), Gold (200.7), Platinum (200.7), Palladium (200.7), Titanium (200.7), Phosphorus (365.3), Nitrate-Nitrite (10-107-4-1C, 353.2), m-Xylene & p-Xylene (502.2, 524), Naphthalene (502.2), o-Xylene (502.2, 524), & Fecal Coliform (9222D).

The following analytes are Not Part of ELAP Solid and Hazardous Waste scope of accreditation

Ammonia (SM 4500NH3G), TKN (351.2), Phosphorus (365.3), 1,2-Dichloro-1,1,2-trifluoroethane (8260), & Chlorodifluoromethane (8260).

The following analytes are Not Part of ELAP Non Potable Water scope of accreditation

Dissolved Organic Carbon (5310C), Mecoprop (8151A), & MCPA (8151A).

Definitions and Glossary

Client: Leggette, Brashears & Graham, Inc. Job Number:

Sdg Number: Clovewood

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%R	Percent Recovery
DL, RA, RE	Indicates a Dilution, Reanalysis or Reextraction.
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit - an estimate of the minimum amount of a substance that an analytical process can reliably detect. A MDL is analyte- and matrix-specific and may be laboratory-dependent.
ND	Not detected at the reporting limit (or MDL if shown).
QC	Quality Control
RL	Reporting Limit - the minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.
RPD	Relative Percent Difference - a measure of the relative difference between two points

EnviroTest Laboratories, Inc.	CHA Lab Name Address & Phone	Envi	roTes	st Lai	borato	ories			w Yor			3°C 5-562-				3	REPORT# (L	ab Use Only)
PROJECT REFERENCE PROJECT NO. Clovewood	PROJECT LOCATION		MATRIX TYPE						REQL	JIRED	ANAL	YSES					PAGE 1 of	1
ENVIROTEST PROJECT MANAGER P.O. NUMBER Debra Bayer	TOWN	\prod			MPA C/G kit	40ml Vials HCI	Sodíum Thio.	III Thio.	Na2SO3	ric Acid	o(liquid)	r Plastic	um Hyd.	c Sterile	ic Nitric	Unpres		TURNAROUND TIME
	CLIENT FAX	NCATE	iter) Indicate		MP	40mi V	40mi Sodíu	250ml Amber Sodium Thio	Liter Amber HCI/Na2SO3	250ml Plastic Nitric Acid	40ml Mon/Sod.Thio(liquid	Lite	250ml Plastic Sodium Hyd	125ml Plastic Sterik	Liter Plastic Nitric	40ml Vials Unpres	NORMAL	1
CLIENT NAME Stacy Stieber		(G) IND	(Waste Water)				₩ ₩	I Am	ler An	E I	Mon		<u> 5</u> Pa	125	-	4	QUICK	
CLIENT ADDRESS 4 Research Drive, Suite 204, Shelton, CT 06484	4	OR GRAB	r) or W (W					250m	. Ē	52	40m		2500				VERBAL.	
COMPANY CONTRACTING THIS WORK (if applicable):		OSITE (C)	D (Drinking Water) or W	OR SEMIS R Specify	L												#OF COOLERS	
DATE TIME	E IDENTIFICATION	COMP	D (Drin	SOLIDO	L		N	NUMBE	R OF	CONT	AINER	S SUBI	MITTE	D				REMARKS
7/13/17 840 (-1	4	\prod	D	I		3	2	1	2	1	2	4	1	2	5	2	Table 8B (Sb,As	a,Ba,Be,Cd,Cr,Cn,Hg,Nl
7.		\prod	Ш	1_													Se,Ti,F)	
		\coprod	Ш	\perp				<u> </u>						<u> </u>			Table 8C (NO3,	NO2)
		Ц	Ш		2-Liter	r Ambe	r Unpre	es.						<u> </u>		<u>L</u>	Table 8D (CI,Fe	,Mn,Ag,Na,SO4,Zn,Odor,Color)
		Ц	Ш	\perp	1-250	ml Amb	er Unp	ores.					<u> </u>		<u> </u>		524.2 (POC,MT	BE,Vinyl Chloride)
		Ш			3-250	ml Plas	itic Unp	ores. (n	o air)								SOCs (504,508,	515,525,531,547,548,549,Dioxin)
					2-40n	nl Ambe	er Sodii	um Thi).								Additional Test	s (Total coliform
		\prod			1-500	ml Amb	oer Soc	dium Ti	ilo.								thru Zinc)	
		\coprod		\perp	1-Lite	r Ambe	r Plast	lc Sodi	ım Thi	o.&H29	SO4						Radio(Gross Al	pha/Beta,Radium-226/228,Uranium)
		\prod		\mathbb{L}	2-Lite	r Ambe	r Sodil	ım Thio).								Radon	
VVV		\prod	\mathbb{V}	I													Dissolved Fe, N	An
		\prod		\mathbb{L}														
//, \		\prod		floor														
RELINGUISASO BY: (SIGNATURE) COMPAN	136 7/13/17	TIME	14.	3		EIVED I	•		•					COMP			DATE	TIME
SAMPYEO BY: GAGNATURE COMPAN	BG 7/13/17	'TIME	341	<u></u>		EIVED 8								COMP			DATE	TIME
RELINCUISHED BY (SIGNATURE) COMPAN	IY DATE	TIME			RECE	EIVED I	BY: (SI	IGNAT	JRE)					COMP	ĀNY		DATE	TIME
SUBCONTACT: PACE-SOCs, Radio, Rad											\overline{Z}							
RECEIVED FOR LABORATORY BY: DATE (SIGNATURE) 7/13/7	TIME CUSTODY INTACT YES NO		er Ten		LABO	PRATO	RY RE	MARK	š:	ICE	p	Н	_ CL2		Hevely	wed by		

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-3

SDG Number: Clovewood

Login Number: 123595

Question	T/F/NA	Comment
Samples were collected by ETL employee as per SOP-SAM-1	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is recorded.	True	3.5C
Cooler Temp. is within method specified range.(0-6 C PW, 0-8 C NPW, or BAC <10 C	True	
If false, was sample received on ice within 6 hours of collection.	NA	
Based on above criteria cooler temperature is acceptable.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	False	рН
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

(724)850-5600



August 03, 2017

Ms. Debra Bayer EnviroTest Laboratories, Inc. 315 Fullerton Avenue Newburgh, NY 12550

RE: Project: 42001269

Pace Project No.: 30224098

Dear Ms. Bayer:

Enclosed are the analytical results for sample(s) received by the laboratory on July 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com

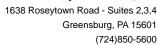
(724)850-5612 Project Manager

Suguely Cellins

Enclosures

cc: Janine Rader, EnviroTest Laboratories, Inc.







CERTIFICATIONS

Project: 42001269
Pace Project No.: 30224098

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683 Georgia Certification #: C040

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification Missouri Certification #: 235 Montana Certification #: Cert 0082 Nebraska Certification #: NE-05-29-14

Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888

North Carolina Certification #: 42706 North Dakota Certification #: R-190 Oregon/TNI Certification #: PA200002 Pennsylvania/TNI Certification #: 65-00282 Puerto Rico Certification #: PA01457

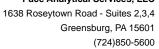
Rhode Island Certification #: 65-00282 South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

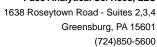




SAMPLE SUMMARY

Project: 42001269
Pace Project No.: 30224098

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30224098001	C-14 (420-123595-3)	Drinking Water	07/13/17 08:40	07/14/17 10:20

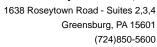




SAMPLE ANALYTE COUNT

Project: 42001269
Pace Project No.: 30224098

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30224098001	C-14 (420-123595-3)	SM7500RnB-07	NEG	1
		EPA 900.0	NEG	2
		EPA 903.1	WRR	1
		EPA 904.0	VAL	1
		ASTM D5174-97	RMK	1

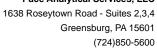




ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 42001269
Pace Project No.: 30224098

Sample: C-14 (420-123595-3) PWS:	Lab ID: 30224 Site ID:	098001 Collected: 07/13/17 08:40 Sample Type:	Received:	07/14/17 10:20	Matrix: Drinking Wate	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radon	SM7500RnB-07	169.4 ± 33.7 (46.0) C:NA T:NA	pCi/L	07/15/17 06:01	1 10043-92-2	
Gross Alpha	EPA 900.0	1.75 ± 1.40 (2.53) C:NA T:NA	pCi/L	07/24/17 08:36	12587-46-1	
Gross Beta	EPA 900.0	1.77 ± 0.816 (1.42) C:NA T:NA	pCi/L	07/24/17 08:36	6 12587-47-2	
Radium-226	EPA 903.1	0.378 ± 0.494 (0.826) C:NA T:91%	pCi/L	07/26/17 12:51	1 13982-63-3	
Radium-228	EPA 904.0	0.624 ± 0.345 (0.665) C:73% T:90%	pCi/L	07/27/17 11:16	5 15262-20-1	
Total Uranium	ASTM D5174-97	0.258 ± 0.010 (0.193) C:NA T:NA	ug/L	08/03/17 16:23	3 7440-61-1	





Project:

42001269

Pace Project No.:

30224098

QC Batch: QC Batch Method: 265143

ASTM D5174-97

Analysis Method:

ASTM D5174-97

Analysis Description:

D5174.97 Total Uranium KPA

Associated Lab Samples:

30224098001

METHOD BLANK: 1306496

Matrix: Water

Associated Lab Samples:

30224098001

Parameter

Act ± Unc (MDC) Carr Trac

Units ug/L Analyzed

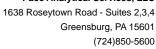
Qualifiers

Total Uranium

0.064 ± 0.004 (0.193) C:NA T:NA

08/03/17 11:33

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project:

42001269

Pace Project No.:

30224098

QC Batch: QC Batch Method: 265053

SM7500RnB-07

Analysis Method: Analysis Description: SM7500RnB-07 7500Rn B Radon

Associated Lab Samples:

30224098001

METHOD BLANK: 1305441

Matrix: Water

Associated Lab Samples:

30224098001

Parameter

Act ± Unc (MDC) Carr Trac

Units pCi/L Analyzed

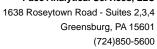
Qualifiers

Radon

2.8 ± 18.8 (32.7) C:NA T:NA

07/15/17 02:40

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project:

42001269

Pace Project No.:

30224098

QC Batch:

265152

Analysis Method:

EPA 903.1

QC Batch Method:

EPA 903.1

Analysis Description:

903.1 Radium-226

Associated Lab Samples:

30224098001

Matrix: Water

Associated Lab Samples:

METHOD BLANK: 1306510

30224098001

Parameter

Act ± Unc (MDC) Carr Trac

Units pCi/L Analyzed

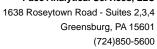
Qualifiers

Radium-226

0.159 ± 0.312 (0.570) C:NA T:95%

07/26/17 12:14

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project:

42001269

Pace Project No.:

30224098

QC Batch:

265148

Analysis Method:

EPA 900.0

QC Batch Method: EPA 900.0 Analysis Description:

900.0 Gross Alpha/Beta

Associated Lab Samples:

30224098001

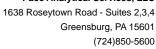
METHOD BLANK: 1306505

Matrix: Water

Associated Lab Samples: 30224098001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	-0.333 ± 0.399 (1.52) C:NA T:NA	pCi/L	07/24/17 08:35	
Gross Beta	-0.362 ± 0.578 (1.62) C:NA T:NA	pCi/L	07/24/17 08:35	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project:

42001269

Pace Project No.:

30224098

QC Batch:

265158

Analysis Method:

EPA 904.0

QC Batch Method: EPA 904.0

METHOD BLANK: 1306521

Analysis Description:

904.0 Radium 228

Associated Lab Samples:

30224098001

Matrix: Water

Associated Lab Samples:

30224098001

Parameter

Act ± Unc (MDC) Carr Trac

Units pCi/L

Analyzed

Qualifiers

Radium-228

 $0.0810 \pm 0.316 \quad (0.717) \text{ C:}75\% \text{ T:}85\%$

07/27/17 11:14

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



1638 Roseytown Road - Suites 2,3,4 Greensburg, PA 15601 (724)850-5600



QUALIFIERS

Project: 42001269
Pace Project No.: 30224098

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Date: 08/03/2017 04:46 PM

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Ş EnviroTest Laboratories, Inc.

315 Fullerton Avenue

Newburgh, NY 12550 Phone (845) 562-0890 Fax (845) 562-0841

Phone:

Record
Custody
Chain of

あり 大田 こころを持

EnviroTest

N - None
O - Ashao'z
P - Na2O45
Q - Na2O3
R - Na2SSO3
S - H2SO4
T - TSP Dodecainydrate
U - Acetione
W - Ph 4.5
Z - other (specify) Laboratories Inc. Months Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mont Special Instructions/QC Requirements: Preservation Codes A - HCL
B - NaOH
C - Zn Acetate
O - Nitrio Acid
E - NanSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid STL Job #: 420-123595-3 COC No: 420-9119.1 Page: Page 1 of 1 I-ice J-Di Water K-EDTA L-EDA WO#:30224098 Potal Mumber of containers Method of Shipment: Carrier Tracking No(s) Analysis Requested dbayer@envirotestlaboratories.com GUBCONTRACT/ Radon × SUBCONTRACT/ Total Uranium SUBCONTRACTI 900 GAIGBIRA 226/RA 228 Lab PM: Bayer, Debra E-Mail: Time: Preservation Code; (Wewater, S=solid, O=waste/oll, Water Matrix Sampler of US 71217 Radiological Type (C=comp, G=grab) Sample Sample Тіте 8:40 Date: Unknown IAT Requested (days): Due Date Requested: 7/27/2017 Sample Date 7/13/17 Project #: 42001269 SSOW#: ₩ Q Poison B Skin Irritant (Sub Contract Lab) Deliverable Requested: I, II, III, IV, Other (specify) Sample Identification Client ID (Lab ID) C - 14 (420-123595-3) Non-Hazard Telammable 1638 Roseytown Rd, Suites 2,3,4, Possible Hazard Identification Pace Analytical Services, Inc. Empty Kit Relinquished by: Client Information Client Contact. Shipping/Receiving Greensburg Project Name: LBG, Inc. State, Zip: PA, 15601

Company Company

020

・ナ/1/イ/・ Date/Time:

Date/Time:

Date/Time:

Cooler Temperature(s) °C and Other Remarks;

Received by: Received by:

Company

Date/Time:)ate/Time;

Custody Seal No.

Custody Seals Intact: △ Yes △ No

Date/Time:

telinquished by: elinquished by: elinquished by:

Client	Name:		_			3022
a vitim Para Si Dune Din		<u>C</u>	NV.	no t	est labos.	Project#
Tracking #: 779675	SPS □Clien しつろう	nı [3 ℃	Domn	nercial	Pace Other	Label ZA
Custody Seal on Cooler/Box Prese	nt: yes		7 no	Sej	els Intact: yes	no
\	,	Type	a of lo	e: (W	et Blue None	
Cooler Temperature Observed	Tenip ?	5.5	_ °C	Co	rrection Factor <u>: 🔘 .</u>	O °C Final Temp: 김도
Temp should be above freezing to 6°C						Date and Initials of person examin contents: 근다 구간되었다
Comments:		Yes	No	N/A	A]	· ·
Chain of Cuslody Present:					1	
Chain of Cuslody Filled Out:		1			2	
Chain of Cuslody Relinquished:		1/			3,	
Sampler Name & Signature on COC:			/		4	
Sample Labels match COC:		1		<u> </u>	5.	
-Includes date/lime/ID	Matrix:	WT	-			<u> </u>
Samples Arrived within Hold Time:		/			6.	
Short Hold Time Analysis (<72hr ren	nalnIng):	1			7.	
Rush Turn Around Time Requested:		<u> </u>	/	<u> </u>	8.	
ufficient Volume:		/		<u> </u>	9	
orrect Containers Used:		/		<u> </u>	10.	•
-Pace Containers Used:			1			
ontainers intact:		1		of Charles	11	
rthophosphate fleid filtered	<u>.</u>				12	
rganic Samples checked for dechi	lorination:			1	13.	
llered volume received for Dissoived I	ests				14.	
I containers have been checked for preser	vation.	4			15.	
l containers needing preservation are foun mpliance with EPA recommendation.	d to be in	/				Date/lime of
ceptions: VOA, coliform, TOC, O&G,	, Phenolics			;	Inilial when Ct + completed Ct + Lot # of added	preservallon
					preservative	
adspace in VOA Viais (>6mm):		-			16.	
p Blank Present:					17.	
p Blank Custody Seals Present				_	Initial when	54.4.5
d Aqueous Samples Screened > 0.6	mrem/hr		/		completed: 74	Date: 7/14/17
ent Notification/ Resolution:						
Person Contacled:				Date/T	lme:	Contacted By:
Comments/ Resolution:						
	-					
					1	aranarts
A check in this box indicates	that addition	nal in	form	ation	has been stored in	ereports.
e: Whenever there is a discrepancy affect	ing North Carol	ina com	pllance	samp	les, a copy of this form wi	be sent to the North Carolina DEHNR
e: Whenever there is a dispreparity and dispression Office (i.e. out of hold, incorrect in the standard in the literature in the standard in the literature in the standard in the literature in the standard in the literature in the standard in the standa	oreservative, ou AS When the F	n of fett Profect W	ър, грсс Иалаоя	r close	s the SRF Review sched	ule in LiMS. The review is in the Status section

J:\QAQC\Master\Document Management\Sample Mgf\Sample Condition Upon Receipt Pittsburgh (C056-5 5July2017)





August 07, 2017

Ron Bayer EnviroTest Laboratories Inc. 315 Fullerton Avenue Newburgh, NY 12550

RE: Project: LBG,Inc 42001269

Pace Project No.: 35324055

Dear Ron Bayer:

Enclosed are the analytical results for sample(s) received by the laboratory on July 15, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Bo Garcia bo.garcia@pacelabs.com (386)672-5668 Project Manager

Enclosures

cc: Debra Bayer, EnviroTest Laboratories Inc. Renee Cusack, EnviroTest Laboratories Inc. Laura Marciano, EnviroTest Laboratories Inc. Janine Rader, EnviroTest Laboratories Inc. Meredith Ruthven, EnviroTest Laboratories Inc.





Ormond Beach, FL 32174 (386)672-5668

CERTIFICATIONS

Project: LBG,Inc 42001269

Pace Project No.: 35324055

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174

Alabama Certification #: 41320 Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

Florida Certification #: E83079 Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Louisiana Certification #: FL NELAC Reciprocity Louisiana Environmental Certificate #: 05007

Maryland Certification: #346 Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236 Montana Certification #: Cert 0074 Nebraska Certification: NE-OS-28-14

Nevada Certification: FL NELAC Reciprocity

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity Virginia Environmental Certification #: 460165

Wyoming Certification: FL NELAC Reciprocity

West Virginia Certification #: 9962C Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

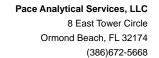
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SAMPLE SUMMARY

Project: LBG,Inc 42001269

Pace Project No.: 35324055

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35324055001	C-14	Drinking Water	07/13/17 08:40	07/15/17 11:10



SAMPLE ANALYTE COUNT

Project: LBG,Inc 42001269

Pace Project No.: 35324055

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35324055001	C-14	EPA 504.1	BP1	2	PASI-O
		EPA 505	MMR	3	
		EPA 508.1	NS1	18	PASI-O
		EPA 515.3	LJM	8	PASI-O
		EPA 531.1	WFH	9	PASI-O
		EPA 547	NMB	1	PASI-O
		EPA 549.2	NMB	1	PASI-O
		EPA 525.2	NS1	7	PASI-O
		EPA 548.1	JDT	1	PASI-O



ANALYTICAL RESULTS

Project: LBG,Inc 42001269

Pace Project No.: 35324055

Date: 08/07/2017 12:29 PM

Sample: C-14 Lab ID: 35324055001 Collected: 07/13/17 08:40 Received: 07/15/17 11:10 Matrix: Drinking Water PQL DF Results Units MDI CAS No. **Parameters** Prepared Analyzed Qual 504.1 GCS EDB and DBCP Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 1,2-Dibromo-3-chloropropane <0.0055 ug/L 0.017 0.0055 07/18/17 07:15 07/18/17 18:52 96-12-8 <0.0065 0.0065 1,2-Dibromoethane (EDB) ug/L 0.0086 07/18/17 07:15 07/18/17 18:52 106-93-4 505 GCS Pesticides/PCBs Analytical Method: EPA 505 Preparation Method: EPA 505 <0.025 0.025 0.025 07/20/17 16:38 07/20/17 23:46 309-00-2 Aldrin ug/L 1 Surrogates Tetrachloro-m-xylene (S) 101 %. 30-150 1 07/20/17 16:38 07/20/17 23:46 877-09-8 Decachlorobiphenyl (S) 75 %. 30-150 1 07/20/17 16:38 07/20/17 23:46 2051-24-3 508.1 GCS Pesticides Analytical Method: EPA 508.1 Preparation Method: EPA 508.1 <0.037 ug/L 0.21 0.037 07/24/17 10:15 07/28/17 14:06 15972-60-8 Alachlor 1 Atrazine < 0.067 ug/L 0.11 0.067 1 07/24/17 10:15 07/28/17 14:06 1912-24-9 12 gamma-BHC (Lindane) <0.0032 ug/L 0.021 0.0032 1 07/24/17 10:15 07/28/17 14:06 58-89-9 <0.029 0.029 07/24/17 10:15 07/28/17 14:06 23184-66-9 Butachlor ug/L 0.111 Chlordane (Technical) <0.050 0.21 0.050 07/24/17 10:15 07/28/17 14:06 57-74-9 ug/L 1 Dieldrin <0.020 ug/L 0.11 0.020 1 07/24/17 10:15 07/28/17 14:06 60-57-1 07/24/17 10:15 07/28/17 14:06 72-20-8 Endrin < 0.0074 ug/L 0.011 0.0074 1 Heptachlor < 0.013 ug/L 0.042 0.013 07/24/17 10:15 07/28/17 14:06 76-44-8 1 0.021 Heptachlor epoxide < 0.0032 ug/L 0.0032 1 07/24/17 10:15 07/28/17 14:06 1024-57-3 Hexachlorobenzene <0.020 0.11 0.020 07/24/17 10:15 07/28/17 14:06 118-74-1 ug/L 1 Hexachlorocyclopentadiene < 0.034 ug/L 0.11 0.034 1 07/24/17 10:15 07/28/17 14:06 77-47-4 Methoxychlor <0.054 ug/L 0.110.054 1 07/24/17 10:15 07/28/17 14:06 72-43-5 Metolachlor < 0.050 ug/L 0.11 0.050 1 07/24/17 10:15 07/28/17 14:06 51218-45-2 PCB. Total <0.085 ug/L 0.11 0.085 1 07/24/17 10:15 07/28/17 14:06 1336-36-3 Propachlor < 0.032 ug/L 0.11 0.032 1 07/24/17 10:15 07/28/17 14:06 1918-16-7 Simazine <0.073 0.074 0.073 07/28/17 14:06 122-34-9 ug/L 1 07/24/17 10:15 L2 Toxaphene 0.64 < 0.64 ug/L 1.1 1 07/24/17 10:15 07/28/17 14:06 8001-35-2 Surrogates Decachlorobiphenyl (S) % 70-130 1 S0 69 07/24/17 10:15 07/28/17 14:06 2051-24-3 515.3 Chlorinated Herbicides Analytical Method: EPA 515.3 Preparation Method: EPA 515.3 2,4-D <0.081 0.081 07/20/17 09:35 07/22/17 10:46 94-75-7 ug/L 0.10 07/22/17 10:46 75-99-0 Dalapon <0.89 ug/L 1.0 0.89 1 07/20/17 09:35 Dicamba < 0.067 ug/L 0.10 0.067 1 07/20/17 09:35 07/22/17 10:46 1918-00-9 L1 Dinoseb < 0.16 0.20 0.16 07/20/17 09:35 07/22/17 10:46 88-85-7 ug/L 1 Pentachlorophenol <0.030 0.040 0.030 07/20/17 09:35 07/22/17 10:46 87-86-5 ug/L 1 Picloram < 0.094 ug/L 0.10 0.094 1 07/20/17 09:35 07/22/17 10:46 1918-02-1 2,4,5-TP (Silvex) < 0.16 ug/L 0.20 0.16 1 07/20/17 09:35 07/22/17 10:46 93-72-1 Surrogates 2,4-DCAA (S) 94 % 70-130 1 07/20/17 09:35 07/22/17 10:46 19719-28-9 Analytical Method: EPA 531.1 531.1 HPLC Carbamates 2.0 Aldicarb < 0.64 ug/L 0.64 1 07/18/17 18:21 116-06-3 Aldicarb sulfone <0.37 ug/L 2.0 0.37 1 07/18/17 18:21 1646-88-4 Aldicarb sulfoxide <0.59 ug/L 2.0 0.59 1 07/18/17 18:21 1646-87-3 Carbofuran < 0.32 ug/L 2.0 0.32 1 07/18/17 18:21 1563-66-2

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: LBG,Inc 42001269

Pace Project No.: 35324055

Date: 08/07/2017 12:29 PM

Sample: C-14	Lab ID:	35324055001	Collected	d: 07/13/17	08:40	Received: 07/	15/17 11:10 M	atrix: Drinking	Water
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
531.1 HPLC Carbamates	Analytical	Method: EPA 5	31.1						
3-Hydroxycarbofuran	<0.45	ug/L	2.0	0.45	1		07/18/17 18:21	16655-82-6	
Methomyl	<0.57	ug/L	2.0	0.57	1		07/18/17 18:21	16752-77-5	
Oxamyl	<0.55	ug/L	2.0	0.55	1		07/18/17 18:21	23135-22-0	
Carbaryl	<0.27	ug/L	2.0	0.27	1		07/18/17 18:21	63-25-2	
Surrogates									
BDMC (S)	107	%	80-120		1		07/18/17 18:21		
547 HPLC Glyphosate	Analytical	Method: EPA 5	47						
Glyphosate	<4.2	ug/L	6.0	4.2	1		07/20/17 05:59		
549.2 HPLC Paraquat Diquat	Analytical	Method: EPA 5	49.2 Prepa	ration Meth	od: EP	A 549.2			
Diquat	<0.30	ug/L	0.40	0.30	1	07/19/17 11:00	07/20/17 02:23	85-00-7	
525.2 Base Neutral Extractable	Analytical	Method: EPA 5	25.2 Prepa	ration Meth	od: EP	A 525.2			
Benzo(a)pyrene	<0.014	ug/L	0.11	0.014	1	07/25/17 10:15	07/25/17 18:24	50-32-8	
bis(2-Ethylhexyl)adipate	<0.41	ug/L	1.7	0.41	1	07/25/17 10:15	07/25/17 18:24	103-23-1	
bis(2-Ethylhexyl)phthalate	<0.53	ug/L	2.1	0.53	1	07/25/17 10:15	07/25/17 18:24	117-81-7	
Metribuzin	<0.16	ug/L	0.32	0.16	1	07/25/17 10:15	07/25/17 18:24	21087-64-9	
Surrogates		•							
1,3-Dimethyl-2-nitrobenzene(S)	100	%	70-130		1	07/25/17 10:15	07/25/17 18:24	81209	
Perylene-d12 (S)	85	%	70-130		1	07/25/17 10:15	07/25/17 18:24	1520963	
Triphenylphosphate (S)	90	%	70-130		1	07/25/17 10:15	07/25/17 18:24	115-86-6	
548.1 GCS Endothall	Analytical	Method: EPA 5	48.1 Prepa	ration Meth	od: EP	A 548.1			
Endothall	<4.3	ug/L	9.0	4.3	1	07/19/17 17:00	07/24/17 23:39		L2,L5



Project: LBG,Inc 42001269

Pace Project No.: 35324055

Date: 08/07/2017 12:29 PM

QC Batch: 381535 Analysis Method: EPA 531.1

QC Batch Method: EPA 531.1 Analysis Description: 531.1 HPLC Carbamate

Associated Lab Samples: 35324055001

METHOD BLANK: 2070180 Matrix: Water

Associated Lab Samples: 35324055001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
3-Hydroxycarbofuran	ug/L	<0.45	2.0	0.45	07/18/17 12:36	
Aldicarb	ug/L	< 0.64	2.0	0.64	07/18/17 12:36	
Aldicarb sulfone	ug/L	< 0.37	2.0	0.37	07/18/17 12:36	
Aldicarb sulfoxide	ug/L	< 0.59	2.0	0.59	07/18/17 12:36	
Carbaryl	ug/L	< 0.27	2.0	0.27	07/18/17 12:36	
Carbofuran	ug/L	< 0.32	2.0	0.32	07/18/17 12:36	
Methomyl	ug/L	< 0.57	2.0	0.57	07/18/17 12:36	
Oxamyl	ug/L	< 0.55	2.0	0.55	07/18/17 12:36	
BDMC (S)	%	120	80-120		07/18/17 12:36	

LABORATORY CONTROL SAMPLE:	2070181					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1 drameter						Qualificis
-Hydroxycarbofuran	ug/L	10	10.3	103	80-120	
ldicarb	ug/L	10	11.2	112	80-120	
ldicarb sulfone	ug/L	10	10.9	109	80-120	
ldicarb sulfoxide	ug/L	10	12.0	120	80-120	
arbaryl	ug/L	10	12.0	120	80-120	
arbofuran	ug/L	10	11.7	117	80-120	
ethomyl	ug/L	10	10.6	106	80-120	
xamyl	ug/L	10	11.8	118	80-120	
DMC (S)	%			118	80-120	

MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	TE: 20701	82		2070183							
	3	5323850001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
3-Hydroxycarbofuran	ug/L	0.45U	10	10	10	10.2	100	102	80-120	2	20	
Aldicarb	ug/L	0.64U	10	10	10.5	10.3	105	103	80-120	3	20	
Aldicarb sulfone	ug/L	0.37U	10	10	9.5	9.8	95	98	80-120	4	20	
Aldicarb sulfoxide	ug/L	0.59U	10	10	11.2	11.0	112	110	80-120	2	20	
Carbaryl	ug/L	0.27U	10	10	12.0	11.5	120	115	80-120	4	20	
Carbofuran	ug/L	0.32U	10	10	11.3	10.5	113	105	80-120	7	20	
Methomyl	ug/L	0.57U	10	10	10.5	11.1	105	111	80-120	6	20	
Oxamyl	ug/L	0.55U	10	10	10.2	10.0	102	100	80-120	2	20	
BDMC (S)	%						103	98	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



LBG,Inc 42001269 Project:

Pace Project No.: 35324055

QC Batch: 382091

QC Batch Method: **EPA 547** Analysis Method:

EPA 547

Analysis Description:

547 HPLC Glyphosate

Associated Lab Samples: 35324055001

Parameter

LABORATORY CONTROL SAMPLE:

Parameter

Parameter

Parameter

2073233 METHOD BLANK:

Matrix: Water

Associated Lab Samples:

35324055001

Blank

Reporting

Result <4.2 Limit

6.0

MDL Analyzed

07/20/17 02:06

Qualifiers

Glyphosate

2073234

Units

ug/L

LCS Result

50

LCS % Rec % Rec Limits

96

80-120

Qualifiers

Glyphosate

Glyphosate

Glyphosate

ug/L

35324897001

35324066001

Result

Result

0.0042U

mg/L

Units

ug/L

Units

ug/L

Units

50

Spike

Conc.

52.3

2073236

Result

105

4.2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

2073235

MS MSD Spike Spike Conc. Conc.

MS MSD

48.2

MS % Rec

MSD % Rec

97

% Rec Limits RPD

Max RPD Qual 80-120 0 30

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

2073237

MS MSD 2073238

MSD

Result

48.4

MSD

% Rec

Max

RPD RPD Qual

<4.2

50

Spike Spike Conc. Conc.

50

MS Result 50 51.2

Result 49.9 % Rec 102

MS

% Rec 100

Limits 80-120

3 30

Date: 08/07/2017 12:29 PM

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Project: LBG,Inc 42001269

Pace Project No.: 35324055

QC Batch: 381399 QC Batch Method: EPA 504.1 Analysis Method:

EPA 504.1

Analysis Description:

504 EDB DBCP

Associated Lab Samples: 35324055001

METHOD BLANK: 2069376

Matrix: Water

Associated Lab Samples:

Date: 08/07/2017 12:29 PM

35324055001

Blank Reporting

Limit MDL Parameter Units Result Qualifiers Analyzed 1,2-Dibromo-3-chloropropane < 0.0064 0.020 0.0064 07/18/17 13:43 ug/L 1,2-Dibromoethane (EDB) ug/L < 0.0075 0.010 0.0075 07/18/17 13:43

LABORATORY CONTROL SAMPLE & LCSD: 2069377 2070238 Spike LCS **LCSD** LCS **LCSD** % Rec Max Parameter Units Conc. Result Result % Rec % Rec Limits **RPD RPD** Qualifiers 1,2-Dibromo-3-chloropropane ug/L .25 109 96 70-130 12 40 0.27 0.24 1,2-Dibromoethane (EDB) .25 0.29 0.25 116 101 70-130 13 40 ug/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2070239 2070240 MSD MS 35324127010 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual 1,2-Dibromo-3ug/L < 0.0055 .44 .44 0.64 0.63 146 143 65-135 2 40 M1 chloropropane 1,2-Dibromoethane (EDB) ug/L < 0.0064 .44 .44 0.64 0.63 146 145 65-135 40 M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



EPA 505

Project: LBG,Inc 42001269

Pace Project No.: 35324055

QC Batch: 32255

Date: 08/07/2017 12:29 PM

32255 Analysis Method:

QC Batch Method: EPA 505 Analysis Description: 505 GCS Pesticides

Associated Lab Samples: 35324055001

METHOD BLANK: 149103 Matrix: Water

Associated Lab Samples: 35324055001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Aldrin	ug/L	<0.025	0.025	0.025	07/20/17 18:40	
Decachlorobiphenyl (S)	%.	75	30-150		07/20/17 18:40	
Tetrachloro-m-xylene (S)	%.	85	30-150		07/20/17 18:40	

LABORATORY CONTROL SAMP	LE: 149104					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	.048	0.047	98	70-130	
Decachlorobiphenyl (S)	%.			95	30-150	
Tetrachloro-m-xylene (S)	%.			94	30-150	

LABORATORY CONTROL SAMPLE:	149105					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	.0095	<0.025	97	70-130	
Decachlorobiphenyl (S)	%.			89	30-150	
Tetrachloro-m-xylene (S)	%.			95	30-150	

MATRIX SPIKE SAMPLE:	149106						
		7024421001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	<0.025	.095	0.092	96	65-135	_
Decachlorobiphenyl (S)	%.				75	30-150	
Tetrachloro-m-xylene (S)	%.				97	30-150	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324055

Date: 08/07/2017 12:29 PM

QC Batch: 382602 Analysis Method: EPA 508.1

QC Batch Method: EPA 508.1 Analysis Description: 508 GCS Pesticide

Associated Lab Samples: 35324055001

METHOD BLANK: 2076395 Matrix: Water

Associated Lab Samples: 35324055001

			Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Alachlor	ug/L	<0.035	0.20	0.035	07/28/17 05:11	
Atrazine	ug/L	< 0.063	0.10	0.063	07/28/17 05:11	
Butachlor	ug/L	< 0.027	0.10	0.027	07/28/17 05:11	
Chlordane (Technical)	ug/L	< 0.047	0.20	0.047	07/28/17 05:11	
Dieldrin	ug/L	< 0.019	0.10	0.019	07/28/17 05:11	
Endrin	ug/L	< 0.0070	0.010	0.0070	07/28/17 05:11	
gamma-BHC (Lindane)	ug/L	< 0.0030	0.020	0.0030	07/28/17 05:11	
Heptachlor	ug/L	< 0.012	0.040	0.012	07/28/17 05:11	
Heptachlor epoxide	ug/L	< 0.0030	0.020	0.0030	07/28/17 05:11	
Hexachlorobenzene	ug/L	< 0.019	0.10	0.019	07/28/17 05:11	
Hexachlorocyclopentadiene	ug/L	< 0.032	0.10	0.032	07/28/17 05:11	
Methoxychlor	ug/L	< 0.051	0.10	0.051	07/28/17 05:11	
Metolachlor	ug/L	< 0.047	0.10	0.047	07/28/17 05:11	
Propachlor	ug/L	< 0.030	0.10	0.030	07/28/17 05:11	
Simazine	ug/L	< 0.069	0.070	0.069	07/28/17 05:11	
Toxaphene	ug/L	<0.61	1.0	0.61	07/28/17 05:11	
Decachlorobiphenyl (S)	%	93	70-130		07/28/17 05:11	

ABORATORY CONTROL SAMPLE:	2076396					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
lachlor	ug/L		0.93	93	70-130	
razine	ug/L	1.2	< 0.063	0	70-130 l	L2
utachlor	ug/L	.5	0.50	99	70-130	
lordane (Technical)	ug/L		< 0.047			
eldrin	ug/L	.5	0.45	90	70-130	
drin	ug/L	.05	0.044	87	70-130	
nma-BHC (Lindane)	ug/L	.1	0.090	90	70-130	
otachlor	ug/L	.2	0.17	86	70-130	
otachlor epoxide	ug/L	.1	0.10	100	70-130	
kachlorobenzene	ug/L	.5	0.63	125	70-130	
achlorocyclopentadiene	ug/L	.5	0.78	155	70-130	
thoxychlor	ug/L	.5	0.55	110	70-130	
tolachlor	ug/L	.5	0.43	87	70-130	
pachlor	ug/L	.5	0.48	97	70-130	
azine	ug/L	.88	0.43	49	70-130 l	L2
aphene	ug/L		< 0.61			
achlorobiphenyl (S)	%			96	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324055

Date: 08/07/2017 12:29 PM

MATRIX SPIKE & MATRIX SPI	KE DUPLICA	TE: 20772	05 MS	MSD	2077206							
	3	5324367001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Alachlor	ug/L				0.96	0.95				1	40	M1
Atrazine	ug/L				<0.13	<0.13					40	M0
Butachlor	ug/L				0.50	0.50				1	40	M1
Chlordane (Technical)	ug/L				< 0.094	< 0.094					40	
Dieldrin	ug/L				0.44	0.43				1	40	M1
Endrin	ug/L				0.043	0.043				0	40	M1
gamma-BHC (Lindane)	ug/L				0.092	0.091				1	40	M1
Heptachlor	ug/L				0.18	0.16				9	40	M1
Heptachlor epoxide	ug/L				0.098	0.097				2	40	M1
Hexachlorobenzene	ug/L				0.64	0.60				8	40	M1
Hexachlorocyclopentadiene	ug/L				0.80	0.69				15	40	
Methoxychlor	ug/L				0.52	0.52				1	40	
Metolachlor	ug/L				0.46	0.46				1	40	M1
Propachlor	ug/L				0.52	0.51				2	40	M1
Simazine	ug/L				1.1	1.2				8	40	
Toxaphene	ug/L				<1.2	<1.2					40	
Decachlorobiphenyl (S)	%						46	46	70-130		40	S0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324055

Date: 08/07/2017 12:29 PM

QC Batch: 382064 Analysis Method: EPA 515.3

QC Batch Method: EPA 515.3 Analysis Description: 5153 GCS Herbicides

Associated Lab Samples: 35324055001

METHOD BLANK: 2073155 Matrix: Water

Associated Lab Samples: 35324055001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
2,4,5-TP (Silvex)	ug/L	<0.16	0.20	0.16	07/22/17 00:29	
2,4-D	ug/L	< 0.081	0.10	0.081	07/22/17 00:29	
Dalapon	ug/L	< 0.89	1.0	0.89	07/22/17 00:29	
Dicamba	ug/L	< 0.067	0.10	0.067	07/22/17 00:29	
Dinoseb	ug/L	<0.16	0.20	0.16	07/22/17 00:29	
Pentachlorophenol	ug/L	< 0.030	0.040	0.030	07/22/17 00:29	
Picloram	ug/L	< 0.094	0.10	0.094	07/22/17 00:29	
2,4-DCAA (S)	%	88	70-130		07/22/17 00:29	

LABORATORY CONTROL SAMPLE:	2073156					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
						Qualificity
2,4,5-TP (Silvex)	ug/L	1	1.0	103	70-130	
2,4-D	ug/L	.5	0.39	78	70-130	
Dalapon	ug/L	5	4.5	90	70-130	
Dicamba	ug/L	.5	0.66	132	70-130 L	_1
Dinoseb	ug/L	1	1.1	114	70-130	
Pentachlorophenol	ug/L	.2	0.20	98	70-130	
Picloram	ug/L	.5	0.50	99	70-130	
2,4-DCAA (S)	%			93	70-130	

MATRIX SPIKE & MATRIX SF	PIKE DUPLICA	TE: 20734	78		2073479							
			MS	MSD								
	9	2347613003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
2,4,5-TP (Silvex)	ug/L	ND	1	1	1.1	1.1	108	111	70-130	3	40	
2,4-D	ug/L	ND	.5	.5	0.42	0.47	84	94	70-130	11	40	
Dalapon	ug/L	ND	5	5	5.7	6.0	115	120	70-130	5	40	
Dicamba	ug/L	ND	.5	.5	0.58	0.63	117	126	70-130	7	40	
Dinoseb	ug/L	ND	1	1	1.1	1.1	105	113	70-130	7	40	
Pentachlorophenol	ug/L	ND	.2	.2	0.18	0.19	91	95	70-130	4	40	
Picloram	ug/L	ND	.5	.5	0.65	0.70	130	140	70-130	7	40	M1
2,4-DCAA (S)	%						98	99	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324055

Date: 08/07/2017 12:29 PM

MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	TE: 20734	80		2073481							
Parameter	3. Units	5323949005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4,5-TP (Silvex)	ug/L	<0.16	1	1	1.1	1.1	108	110	70-130		40	
2,4-D	ug/L	< 0.081	.5	.5	0.40	0.41	79	82	70-130	3	40	
Dalapon	ug/L	< 0.89	5	5	4.7	4.8	94	95	70-130	1	40	
Dicamba	ug/L	< 0.067	.5	.5	0.51	0.63	103	127	70-130	21	40	
Dinoseb	ug/L	<0.16	1	1	1.1	1.1	110	111	70-130	1	40	
Pentachlorophenol	ug/L	< 0.030	.2	.2	0.19	0.19	96	97	70-130	1	40	
Picloram	ug/L	< 0.094	.5	.5	0.55	0.57	110	115	70-130	5	40	
2,4-DCAA (S)	%						95	93	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324055

Date: 08/07/2017 12:29 PM

QC Batch: 382603 Analysis Method: EPA 525.2

QC Batch Method: EPA 525.2 Analysis Description: 525.2 Base Neutral Extractables

Associated Lab Samples: 35324055001

METHOD BLANK: 2076402 Matrix: Water

Associated Lab Samples: 35324055001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Benzo(a)pyrene	ug/L	<0.013	0.10	0.013	07/25/17 15:37	
bis(2-Ethylhexyl)adipate	ug/L	<0.38	1.6	0.38	07/25/17 15:37	
bis(2-Ethylhexyl)phthalate	ug/L	< 0.50	2.0	0.50	07/25/17 15:37	
Metribuzin	ug/L	<0.15	0.30	0.15	07/25/17 15:37	
1,3-Dimethyl-2-nitrobenzene(S)	%	85	70-130		07/25/17 15:37	
Perylene-d12 (S)	%	109	70-130		07/25/17 15:37	
Triphenylphosphate (S)	%	85	70-130		07/25/17 15:37	

LABORATORY CONTROL SAMPLE:	2076403					
Davamatan	Haita	Spike	LCS	LCS	% Rec	O a lifi aa
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Benzo(a)pyrene	ug/L	.4	0.30	76	70-130	
is(2-Ethylhexyl)adipate	ug/L	6.4	4.9	77	70-130	
s(2-Ethylhexyl)phthalate	ug/L	8	6.8	85	70-130	
tribuzin	ug/L	1.2	1.0	83	70-130	
-Dimethyl-2-nitrobenzene(S)	%			101	70-130	
rylene-d12 (S)	%			94	70-130	
ohenylphosphate (S)	%			86	70-130	

MATRIX SPIKE & MATRIX SP	IKE DUPLICA	TE: 20772	03		2077204							
			MS	MSD								
	3	5323929005	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Benzo(a)pyrene	ug/L	<0.013	.8	.8	0.66	0.67	83	84	70-130	1	40	
bis(2-Ethylhexyl)adipate	ug/L	< 0.37	12.8	12.8	9.7	10.4	76	81	70-130	6	40	
bis(2-Ethylhexyl)phthalate	ug/L	< 0.49	16	16	12.6	13.7	79	86	70-130	9	40	
Metribuzin	ug/L	< 0.15	2.4	2.4	1.7	1.7	71	72	70-130	2	40	
1,3-Dimethyl-2- nitrobenzene(S)	%						100	99	70-130			
Perylene-d12 (S)	%						88	93	70-130			
Triphenylphosphate (S)	%						80	87	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



EPA 548.1

LBG,Inc 42001269 Project:

Pace Project No.: 35324055

Date: 08/07/2017 12:29 PM

QC Batch: 381974

Analysis Method:

QC Batch Method: EPA 548.1 Analysis Description: 548 GCS Endothall

Associated Lab Samples: 35324055001

METHOD BLANK: 2072291 Matrix: Water

Associated Lab Samples: 35324055001

Blank Reporting MDL Limit Qualifiers Parameter Units Result Analyzed

Endothall <4.3 9.0 4.3 07/24/17 19:29 ug/L

LABORATORY CONTROL SAMPLE: 2072292

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Endothall ug/L 50 39.6 79 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2072347 2072348

MS MSD 35324386001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual Endothall 80-120 ug/L 4.3U 50 50 45.0 44.4 90 30 89

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2072358 2072359

MS MSD 35324386002 MS MSD MS MSD Spike Spike % Rec Max % Rec % Rec RPD Parameter Units Result Conc. Conc. Result Result Limits RPD Qual Endothall ug/L 4.3U 50 50 34.3 41.0 69 82 80-120 18 30 M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



LBG,Inc 42001269 Project:

Pace Project No.: 35324055

QC Batch: 381794

Associated Lab Samples:

Date: 08/07/2017 12:29 PM

QC Batch Method: EPA 549.2

Analysis Method:

EPA 549.2

Analysis Description:

549 HPLC Paraquat Diquat

2071478 METHOD BLANK:

35324055001

Associated Lab Samples:

Matrix: Water

35324055001

Blank Reporting

MDL Limit Qualifiers Parameter Units Result Analyzed

Diquat < 0.30 0.40 0.30 07/20/17 00:32 ug/L

LABORATORY CONTROL SAMPLE: 2071479

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers

Diquat ug/L 2 1.6 82 70-130

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2071883 2071882

MS MSD 35324366001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual

Diquat 2 2 1.7 1.7 70-130 0 30 ug/L 0.30U 84 84

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2071884 2071885

MS MSD MS MSD MS MSD 35324454001 Spike Spike % Rec Max Parameter % Rec RPD Units Result Conc. Conc. Result Result % Rec Limits RPD Qual 0.00030U 2 Diquat ug/L 2 0.60 0.84 30 42 70-130 35 30 M1,R1 mg/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: LBG,Inc 42001269

Pace Project No.: 35324055

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

S0

Date: 08/07/2017 12:29 PM

PASI-O Pace Analytical Services - Ormond Beach

Surrogate recovery outside laboratory control limits.

ANALYTE QUALIFIERS

L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
L5	LCS recovery exceeded QC limits. Batch accepted based on matrix spike recovery within LCS limits.
MO	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LBG,Inc 42001269

Pace Project No.: 35324055

Date: 08/07/2017 12:29 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35324055001	C-14	EPA 504.1	381399	EPA 504.1	381607
35324055001	C-14	EPA 505	32255	EPA 505	32334
35324055001	C-14	EPA 508.1	382602	EPA 508.1	383798
35324055001	C-14	EPA 515.3	382064	EPA 515.3	382572
35324055001	C-14	EPA 531.1	381535		
35324055001	C-14	EPA 547	382091		
35324055001	C-14	EPA 549.2	381794	EPA 549.2	382025
35324055001	C-14	EPA 525.2	382603	EPA 525.2	382996
35324055001	C-14	EPA 548.1	381974	EPA 548.1	382933

315 Fullerton Avenue Newburgh, NY 12550 Phone (845) 562-0890

EnviroTest Lab

	f Custody Record		A: erdo erdo
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EnviroTest EnviroTest Laboratories Inc.

Client Information (Sub Contract Lab)	45 45 45 45 11 11 11 11 11 11 11 11 11 11 11 11 11	=		i di	r, Debra								420-9124.1	24.1	
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Company: Pace Analytical Ormond Beach							An	alysis	Red	Analysis Requested	70		STL Job #: 420-1235	STL Job #: 420-123595-3	
Address: 8 East Tower Circle,	Due Date Requested: 7/25/2017			200		MG		-					Preserv A - HCI		
City: Ormond Beach	TAT Requested (day	s):		100	3.2°			-					B-NaO		
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Sample Identification Client ID (Lab ID)	Sample Date	41	Sample Type (C=comp, G=grab)	Matrix (Wewater, Sesolid, Owweste/oll, DE PT-71534e, A-Alr.)	Perform MS/M SUBCONTRA	AATNOOBUS AATNOOBUS	зивсоитка	SUBCONTRA SUBCONTRA	SUBCONTRA	алтиораиг В В В В В В В В В В В В В В В В В В В			redmul/ latoT	Special Instructions/Note:	ж
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Deliverable Requested: I, II, III, IV, Other (specify)					Specia	Instruc	Special Instructions/QC Requirements:	S Requ	remen	is:					
Empty Kit Relinquished by:		Date:		4.0	Time;					Met	Method of Shipment:	pment:			
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Custody Seals Intact: Custody Seal No.:					Coo	er Tempe	Cooler Temperature(s) °C and Other Remarks:	C and O	ther Ren	arks:					



Document Name: Sample Condition Upon Receipt Form Document No.: F-FL-C-007 rev. 11

Document Revised: February 6, 2017 Issuing Authority: Pace Forida Quality Office

Page 21 of 21

Sample Condition Upon Receipt Form (SCUR)

Project #	WO#: 353240	55	Date and Initials of person:
Project Manager: Client:		2: 07/31/17	Examining contents; Label: Deliver: pH:
Thermometer Used:	36 Date: 3/14/	17 Time: 11	10 Initials:
Cooler #2 Temp.*C (Visual) Cooler #3 Temp.*C (Visual) Cooler #4 Temp.*C (Visual) Cooler #5 Temp.*C (Visual) Cooler #6 Temp.*C (Visual) Courier: Fed Ex Ul Shipping Method: First Overnight Silling: Recipient	(Correction Factor) (Correction Factor)	(Actual) (Actual) (Actual) (Actual) (Actual) (Actual) (Actual) Commercial Pace rd Overnight Ground Unknown COA 3485 intact: Yes No	Samples on ice, cooling process has beg Samples on ice, cooling process has beg Samples on ice, cooling process has beg Samples on ice, cooling process has begu Samples on ice, cooling process has begu Samples on ice, cooling process has begu Samples on ice, cooling process has begu Other Other Blue None
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nain of Custody Filled Out	∠ZÝes □ No □N/A		
elinquished Signature & Sampler Nam			
imples Arrived within Hold Time	ØÝes □ No □N/A		
ish TAT requested on COC	□Yes ZÍNo □N/A		
fficient Volume	.⊠Ýes □ No □N/A		
prrect Containers Used	ØYes □ No □N/A		
entainers Intact	⊠Ýes □ No □N/A		
mple Labels match COC (sample IDs & da lection)	ate/time of		
containers needing acid/base preservation ecked. Containers needing preservation are foun mpliance with EPA recommendation: Exceptions: VOA, Coliform,	n have been □Yes □ No □N/A d to be in □Yes □ No □N/A	Pr Preservative:_ Lot #/Trace #:_ Date:_ Initials:_	eservation Information:Time:
eadspace in VOA Vials? (>6mm):	□Yes □ No ☑N/A		
p Blank Present:	□Yes □ No ØŃ/A		
ient Notification/ Resolution: Person Contacted: pmments/ Resolution (use back for a	additional governments)	Date/Time:	
OKCA TO	Run OUT Per	PM	
Project Manager Review:			Date: Page 2



Pace Analytical Services, Inc.

1700 Elm Street Minneapolis, MN 55414 Phone: 612.607.1700

Fax: 612.607.6444

Report Prepared for:

Bo Garcia PASI Florida 8 East Tower Circle Ormond Beach FL 32174

> REPORT OF LABORATORY ANALYSIS FOR 2,3,7,8-TCDD

Report Summary:

This report contains results of one drinking water sample analyzed to determine 2,3,7,8-TCDD content. This sample was analyzed according to Method 1613 by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

Report Prepared Date:

July 31, 2017

Report Information:

Pace Project #: 10396061

Sample Receipt Date: 07/18/2017

Client Project #: 35324055

Client Sub PO #: N/A State Cert #: 11647

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 Drinking Water Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Sarah Platzer, your Pace Project Manager.

This report has been reviewed by:



Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.



Tel: 612-607-1700 Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Montana	CERT0092
Alabama	40770	Nebraska	NE-OS-18-06
Alaska	MN00064	Nevada	MN00064
Alaska	UST-078	New Jersey (NE	MN002
Arizona	AZ0014	New York (NEL	11647
Arkansas	88-0680	New hampshire	2081
CNMI Saipan	MP0003	North Carolina	27700
California	MN00064	North Carolina	530
Colorado	MN00064	North Dakota	R-036
Connecticut	PH-0256	Ohio	41244
EPA Region 8	8TMS-L	Ohio VAP	CL101
Florida (NELAP	E87605	Oklahoma	9507
Georgia (EDP)	959	Oregon (ELAP)	MN200001
Guam EPA	959	Oregon (OREL	MN300001
Hawaii	MN00064	Pennsylvania	68-00563
Idaho	MN00064	Puerto Rico	MN00064
Illinois	200011	South Carolina	74003001
Indiana	C-MN-01	Tennessee	TN02818
Iowa	368	Texas	T104704192
Kansas	E-10167	Utah (NELAP)	MN00064
Kentucky	90062	Virginia	460163
Louisiana	03086	Washington	C486
Louisiana	MN00064	West Virginia #	9952C
Maryland	322	West Virginia D	382
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-L
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.



Tel: 612-607-1700 Fax: 612- 607-6444

Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X =%D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

Chain of Custody



9	•																					
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^{***}In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical*

Document Name:

Sample Condition Upon Receipt Form

Document No.: F-MN-L-213-rev.20 Document Revised: 19Dec2016

Page 1 of 2

Issuing Authority:
Pace Minnesota Quality Office

Sample Condition Client Name:		Project (# UO# 10205064
Upon Receipt Para Command	R	١	" W0#:10396061
Courier: Led Ex UPS [JURAC TUSPS	Client	
Commercial Pace SpeeDee [O3r3 Other:	Пенен	
Tracking Number: 7422-5599-75			10396061
			Optional: Proj. Due Date: Proj. Name:
Custody Seal on Cooler/Box Present? Yes No	Sea	ls Intact?	Yes No Optional: Proj. Due Date: Proj. Name:
Packing Material: Bubble Wrap Bubble Bags	None	Other:	No
Thermometer 151401163 Used: 151401164	Type of	Ice: Wet	☐Blue ☐None ☐Samples on ice, cooling process has begun
Cooler Temp Read (°C): O Cooler Temp Corr		0.2	Biological Tissue Frozen? ☐Yes ☐No 💹 N/A
Temp should be above freezing to 6°C Correction Facto USDA Regulated Soil ("M' N/A, water sample)	": Tru	<u> </u>	and Initials of Person Examining Contents: 7/18/15
Did samples originate in a quarantine zone within the United St	ates: AL. AR. (CA. FL. GA. ID. LA	A. MS, Did samples originate from a foreign source (internationally,
NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)?		☐Yes ☐	No including Hawaii and Puerto Rico)? Yes No
If Yes to either question, fill out a Regu	ulated Soil Ch	hecklist (F-MN-	Q-338) and include with SCUR/COC paperwork.
			COMMENTS:
Chain of Custody Present?	7	No	1.
Chain of Custody Filled Out?		□No	2.
Chain of Custody Relinquished?	Yes [□No	3.
Sampler Name and/or Signature on COC?	X/es [□No □N/A	4.
Samples Arrived within Hold Time?	Yes [No	5.
Short Hold Time Analysis (<72 hr)?	Yes	No	6.
Rush Turn Around Time Requested?	☐Yes ∑	No	7.
Sufficient Volume?	Yes [□No	8.
Correct Containers Used?	∠≧ Yes [□No	9.
-Pace Containers Used?	``∑ Yes [□No	
Containers Intact?	Yes [No	10.
Filtered Volume Received for Dissolved Tests?	□Yes [No N N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	Yes [_No \	12.
-Includes Date/Time/ID/Analysis Matrix:			
All containers needing acid/base preservation have been		- -	13.
checked? All containers needing preservation are found to be in	Yes	_lno _Attn/a	Chlorine? Y N Sample#
compliance with EPA recommendation?			
(HNO ₃ , H ₂ SO ₄ , <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Colif <u>orm</u> , TOC/DOC Oil and Grease,	☐Yes [□no - Not ra	leteinthon
DRO/8015 (water) and Dioxin.	Yes [□No □N/A	Initial when Lot # of added completed: preservative:
Headspace in VOA Vials (>6mm)?		□No ÆN/A	14.
Trip Blank Present?	☐Yes [□No TIN/A	15.
Trip Blank Custody Seals Present?	☐Yes ☐	⊒No ÀM/A	
Pace Trip Blank Lot # (if purchased):			
CLIENT NOTIFICATION/RESOLUTION			Field Data Required? Yes No
Person Contacted:			Date/Time:
Comments/Resolution:			
Project Manager Review: aud Ha	the	<i>j</i>	Date: 7/19/2017
Note: Whenever there is a discrepancy affecting North Carolina cor	iance samp	les, a copy of this	form will be sent to the North Carolina DEHNR Certification Office (i.e out of

hold, incorrect preservative, out of temp, incorrect containers).



Drinking Water Analysis Results 2,3,7,8-TCDD -- USEPA Method 1613B

Tel: 612-607-1700 Fax: 612-607-6444

Sample ID......C-14

Client...... PASI Florida Lab Sample ID.... 35324055001 Date Collected.....07/13/2017
Date Received.....07/18/2017
Date Extracted.....07/27/2017

	Sample C-14	Method Blank	Lab Spike	Lab Spike Dup
[2,3,7,8-TCDD]	ND	ND		
EDL	3.9 pg/L	4.8 pg/L		
2,3,7,8-TCDD Recovery			132%	134%
Spike Recovery Limit		73-146% 73-1		73-146%
RPD			1.	8%
IS Recovery	58%	66%	54%	61%
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	90%	97%	81%	99%
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename Analysis Date Analysis Time Analyst Volume Dilution ICAL Date	Y170728B_11 07/28/2017 22:17 BAL 1.041L NA 07/27/2017	Y170728B_05 07/28/2017 19:25 BAL 1.019L NA 07/27/2017	Y170728B_03 07/28/2017 18:27 BAL 1.054L NA 07/27/2017	Y170728B_04 07/28/2017 18:56 BAL 1.066L NA 07/27/2017
CCAL Filename	Y170728B_02	Y170728B_02	Y170728B_02	Y170728B_02

! = Outside the Control Limits ND = Not Detected

ND = Not Detected EDL = Estimated Detection Limit

Limits = Control Limits from Method 1613 (10/94 Revision), Tables 6A and 7A

RPD = Relative Percent Difference of Lab Spike Recoveries

IS = Internal Standard $[2,3,7,8\text{-TCDD-}^{13}C_{12}]$ CS = Cleanup Standard $[2,3,7,8\text{-TCDD-}^{37}Cl_4]$

Project No......10396061

Analyst: Bam a Lanh



ANALYTICAL REPORT

Job Number: 420-123595-4 SDG Number: Clovewood Job Description: LBG, Inc.

For:

Leggette, Brashears & Graham, Inc. 4 Research Drive Shelton, CT 06464

Attention: Stacy Stieber

Debra Bayer

Subbra 50

Customer Service Manager dbayer@envirotestlaboratories.com

08/24/2017

NYSDOH ELAP does not certify for all parameters. EnviroTest Laboratories does hold certification for all analytes where certification is offered by ELAP unless otherwise specified in the Certification Information section of this report Pursuant to NELAP, this report may not be reproduced, except in full, without written approval of the laboratory. EnviroTest Laboratories Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our laboratory. All questions regarding this report should be directed to the EnviroTest Customer Service Representative.

EnviroTest Laboratories, Inc. Certifications and Approvals: NYSDOH 10142, NJDEP NY015, CTDOPH PH-0554



METHOD SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-4 SDG Number: Clovewood

Descrip	otion	Lab Location	Method Preparation Method	
Matrix:	Water			
S: To	als by 200.7 ample Filtration otal Metals Digestion for 200.7 00 Series Drinking Water Prep Determination Step	EnvTest EnvTest EnvTest EnvTest	EPA 200.7 Rev 4.4 FILTRATION EPA 200.7 EPA 200.7/200.8	
20	Metals by 200.8 00 Series Drinking Water Prep Determination Step otal Metals Digestion for 200.8	EnvTest EnvTest EnvTest	EPA 200.8 Rev.5.4 EPA 200.7/200.8 EPA 200.8	
-	in Water by CVAA igestion for CVAA Mercury in Waters	EnvTest EnvTest	EPA 245.1 Rev.3.0 EPA 245.1	
Anions b	by Ion Chromatography	EnvTest	MCAWW 300.0	
Anions b	by Ion Chromatography	EnvTest	EPA 300.0 Rev. 2.1	
EPA 504	l.1 EDB	Pace	EPA 504.1	
EPA 505	Pesticide/PCB	Pace	EPA 505	
EPA 515	Chlorinated Acids	Pace	EPA 515	
Purgeab	le Organic Compounds in Water by GC/MS	EnvTest	EPA-DW 524.2	
EPA 525	5.2 Semivolatile Organics	Pace	EPA 525.2	
EPA 531	.1 Carbamate Pesticides in Drinki	Pace	EPA 531.1	
EPA 900	Series GA/GB/RA226/RA228/Gamma	Radios	EPA 900	
Jranium	ı	Radios	STL-STL EPA	
Heterotr	opic Plate Count	EnvTest	IDEXX SIMPLATE	
Odor, Th	nreshold Test	EnvTest	SM20 SM 2150B	
Alkalinity	y, Titration Method	EnvTest	SM21 SM 2320B-97,-11	
Corrosiv	ity LSI Calculation	EnvTest	SM20 SM 2330B	
Hardnes	s by Calculation	EnvTest	SM20 SM 2340B-97,-11	
Н		EnvTest	SM19 SM 4500 H+ B	
Nitrite by	y Colormetric	EnvTest	SM20 SM 4500 NO2 B	
	liform and Escherichia coli by Colilert - e/Absence	EnvTest	SMWW SM 9223	
Apparen	it Color	EnvTest	SM21 SM2120B-01,11	
Turbidity	1	EnvTest	SM21 SM2130B-01,11	
Total Dis	ssolved Solids (Dried at 180 °C)	EnvTest	SM21 SM2540C-97,11	
	, Total: Colorimetric Method yanide: Distillation	EnvTest EnvTest	SM21 SM4500 CN E-99 SM21 SM 4500 CN C	
General	Sub Contract Method	Pace	Subcontract	
General	Sub Contract Method	Radios	Subcontract	

METHOD SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-4 SDG Number: Clovewood

Description Lab Location Method Preparation Method

Lab References:

EnvTest = EnviroTest

Pace = Pace Analytical - Ormond Beach

Radios = Pace Analytical Services, Inc.

Method References:

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

IDEXX =

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM19 = "Standard Methods For The Examination Of Water And Wastewater", 19Th Edition, 1995."

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SM21 = "Standard Methods For The Examination Of Water And Wastewater", 21st Edition

SMWW = "Standard Methods for the Examination of Water and Wastewater"

STL-STL = Severn Trent Laboratories, St. Louis, Facility Standard Operating Procedure.

METHOD / ANALYST SUMMARY

Client: Leggette, Brashears & Graham, Inc. Job N

Job Number: 420-123595-4 SDG Number: Clovewood

Method	Analyst	Analyst ID
EPA-DW 524.2	Andersen, Eric C	ECA
EPA 200.7 Rev 4.4	Sirico, Derek	DS
EPA 200.8 Rev.5.4	Sirico, Derek	DS
EPA 245.1 Rev.3.0	Sirico, Derek	DS
SM20 SM 2340B-97,-11	Sirico, Derek	DS
MCAWW 300.0	Luis, Carlos	CL
EPA 300.0 Rev. 2.1	Luis, Carlos	CL
IDEXX SIMPLATE	O'Driscoll, Kate	KO
SM20 SM 2150B	O'Driscoll, Kate	КО
SM21 SM 2320B-97,-11	Tramantano, Matt	MT
SM20 SM 2330B	Cusack, Renee	RC
SM19 SM 4500 H+ B	O'Driscoll, Kate	КО
SM20 SM 4500 NO2 B	Grant, Ameya	AG
SMWW SM 9223	Grant, Ameya	AG
SM21 SM2120B-01,11	O'Driscoll, Kate	КО
SM21 SM2130B-01,11	O'Driscoll, Kate	КО
SM21 SM2540C-97,11	O'Driscoll, Kate	КО
SM21 SM4500 CN E-99	Osborne, Amy	AO

SAMPLE SUMMARY

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-4

SDG Number: Clovewood

			Date/Time	Date/Time
Lab Sample ID	Client Sample ID	Client Matrix	Sampled	Received
420-123595-4	C - 16	Drinking Water	07/13/2017 0915	07/13/2017 1000

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-4

Sdg Number: Clovewood

Client Sample ID: C - 16

 Lab Sample ID:
 420-123595-4
 Date Sampled:
 07/13/2017
 0915

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

524.2 Purgeable Organic Compounds in Water by GC/MS

Method: 524.2 Analysis Batch: 420-112453 Instrument ID: Agilent 7890A/5975C

Preparation:N/ALab File ID:X071421.DDilution:1.0Initial Weight/Volume:5mL

Date Analyzed: 07/14/2017 1948 Final Weight/Volume: 5 mL

Date Prepared: N/A

Analyte	Result (ug/L) Qualifier	RL
1,1,1,2-Tetrachloroethane	<0.500	0.500
1,1,1-Trichloroethane	<0.500	0.500
1,1,2,2-Tetrachloroethane	<0.500	0.500
1,1,2-Trichloroethane	<0.500	0.500
1,1-Dichloroethane	<0.500	0.500
1,1-Dichloroethene	<0.500	0.500
1,1-Dichloropropene	<0.500	0.500
1,2,3-Trichlorobenzene	<0.500	0.500
1,2,3-Trichloropropane	<0.500	0.500
1,2,4-Trichlorobenzene	<0.500	0.500
1,2,4-Trimethylbenzene	<0.500	0.500
1,2-Dichloroethane	<0.500	0.500
1,2-Dichlorobenzene	<0.500	0.500
1,2-Dichloropropane	<0.500	0.500
1,3-Dichloropropane	<0.500	0.500
1,4-Dichlorobenzene	<0.500	0.500
2,2-Dichloropropane	<0.500	0.500
Benzene	<0.500	0.500
Bromobenzene	<0.500	0.500
Bromochloromethane	<0.500	0.500
Bromomethane	<0.500	0.500
n-Butylbenzene	<0.500	0.500
cis-1,2-Dichloroethene	<0.500	0.500
cis-1,3-Dichloropropene	<0.500	0.500
Carbon tetrachloride	<0.500	0.500
Chlorobenzene	<0.500	0.500
Chloroethane	<0.500	0.500
Chloromethane	<0.500	0.500
Dibromomethane	<0.500	0.500
Ethylbenzene	<0.500	0.500
Dichlorodifluoromethane	<0.500	0.500
Hexachlorobutadiene	<0.500	0.500
Isopropylbenzene	<0.500	0.500
p-Isopropyltoluene	<0.500	0.500
Methylene Chloride	<0.500	0.500
m-Xylene & p-Xylene	<1.00	1.00
Methyl tert-butyl ether	<0.500	0.500
o-Xylene	<0.500	0.500
Tetrachloroethene	<0.500	0.500
Toluene	<0.500	0.500
trans-1,2-Dichloroethene	<0.500	0.500
trans-1,3-Dichloropropene	<0.500	0.500
Trichloroethene	<0.500	0.500
tert-Butylbenzene	<0.500	0.500

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-4

Sdg Number: Clovewood

Client Sample ID: C - 16

 Lab Sample ID:
 420-123595-4
 Date Sampled:
 07/13/2017
 0915

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

524.2 Purgeable Organic Compounds in Water by GC/MS

Method: 524.2 Analysis Batch: 420-112453 Instrument ID: Agilent 7890A/5975C

Preparation: N/A Lab File ID: X071421.D

Dilution: 1.0 Initial Weight/Volume: 5 mL

Date Analyzed: 07/14/2017 1948 Final Weight/Volume: 5 mL

Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL
Trichlorofluoromethane	<0.500		0.500
Vinyl chloride	<0.500		0.500
Xylenes, Total	<1.50		1.50
Styrene	<0.500		0.500
sec-Butylbenzene	<0.500		0.500
1,3,5-Trimethylbenzene	<0.500		0.500
N-Propylbenzene	<0.500		0.500
1,3-Dichlorobenzene	<0.500		0.500
2-Chlorotoluene	<0.500		0.500
4-Chlorotoluene	<0.500		0.500
Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene	101		71 - 120
Toluene-d8 (Surr)	118		79 - 121
1,2-Dichloroethane-d4 (Surr)	124		70 - 128

Job Number: 420-123595-4 Client: Leggette, Brashears & Graham, Inc.

Sdg Number: Clovewood

Client Sample ID: C - 16

Lab Sample ID: 420-123595-4 Date Sampled: 07/13/2017 0915 Client Matrix: **Drinking Water** Date Received: 07/13/2017 1000

200.7 Rev 4.4 ICP Metals by 200.7

Instrument ID: Thermo ICP Method: 200.7 Rev 4.4 Analysis Batch: 420-112479

Preparation: 200.7/200.8 Dilution: 1.0

Date Analyzed: 07/17/2017 1445

Date Prepared: 07/17/2017 0925 Prep Batch: 420-112493 N/A Lab File ID: Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

Analyte Result (ug/L) Qualifier RL 1050 60.0 Iron g Manganese 373 10.0 g Sodium 21100 200 Zinc 35.0 20.0

200.7 Rev 4.4 ICP Metals by 200.7-Dissolved

Method: Analysis Batch: 420-112597 Instrument ID: Thermo ICP 200.7 Rev 4.4

Preparation: 200.7 Dilution: 1.0

Date Analyzed: 07/19/2017 1846

07/17/2017 1505 Date Prepared:

Prep Batch: 420-112501 Lab File ID: N/A Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

Analyte Result (ug/L) Qualifier RL <60.0 60.0 Iron Manganese 381 10.0

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-4

Sdg Number: Clovewood

Client Sample ID: C - 16

 Lab Sample ID:
 420-123595-4
 Date Sampled:
 07/13/2017
 0915

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

200.8 Rev.5.4 ICPMS Metals by 200.8

Method: 200.8 Rev.5.4 Analysis Batch: 420-112457 Instrument ID: Perkin Elmer ELAN

Preparation: 200.7/200.8 Prep Batch: 420-112493 Lab File ID: N/A

Dilution: 1.0 Initial Weight/Volume: 50 mL

Date Analyzed: 07/17/2017 1330 Final Weight/Volume: 50 mL

Date Prepared: 07/17/2017 0925

Result (ug/L) RL Analyte Qualifier <1.00 1.00 Lead Arsenic 1.45 1.40 Beryllium < 0.300 0.300 Cadmium <1.00 1.00 Chromium <7.00 7.00 1.32 0.500 Nickel <0.400 0.400 Antimony < 0.300 0.300 Thallium Barium 17.7 2.00 Selenium <2.00 2.00 200.8 Rev.5.4 Instrument ID: Perkin Elmer ELAN Method: Analysis Batch: 420-112536 Preparation: 200.8 Prep Batch: 420-112520 Lab File ID: N/A Dilution: 1.0 Initial Weight/Volume: 50 mL 07/18/2017 1732 Date Analyzed: Final Weight/Volume: 50 mL Date Prepared: 07/17/2017 1800

 Analyte
 Result (ug/L)
 Qualifier
 RL

 Silver
 <1.00</td>
 1.00

245.1 Rev.3.0 Mercury in Water by CVAA

Method: 245.1 Rev.3.0 Analysis Batch: 420-112511 Instrument ID: Perkin Elmer FIMS Preparation: 245.1 Prep Batch: 420-112451 Lab File ID: N/A

Dilution: 1.0 Initial Weight/Volume: 25 mL

Date Analyzed: 07/18/2017 1215 Final Weight/Volume: 25 mL Date Prepared: 07/17/2017 1115

Analyte Result (ug/L) Qualifier RL

Mercury <0.200 0.200

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-4

Sdg Number: Clovewood

Client Sample ID: C - 16

 Lab Sample ID:
 420-123595-4
 Date Sampled:
 07/13/2017 0915

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017 1000

SM 2340B-97,-11 Hardness by Calculation

Method: SM 2340B-97,-11

Preparation: N/A
Dilution: 1.0

Date Analyzed: 07/17/2017 1445

Date Prepared: N/A

Analysis Batch: 420-112535

Instrument ID: None Lab File ID: N/A

Initial Weight/Volume: Final Weight/Volume:

Analyte Result (mg/L) Qualifier RL

Calcium hardness as calcium carbonate 88.2 1.25

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-4

Sdg Number: Clovewood

D:-	
BIO	loav

Client Sample ID: C - 16

Lab Sample ID: 420-123595-4 Client Matrix: Drinking Water Date Sampled: 07/13/2017 0915 Date Received: 07/13/2017 1000

 Analyte
 Result
 Qual
 Units
 Dil
 Method

 Coliform, Total
 Absent
 CFU/100mL
 1.0
 SM 9223

Anly Batch: 420-112380 Date Analyzed 07/13/2017 1510

Escherichia coli Absent CFU/100mL 1.0 SM 9223

Anly Batch: 420-112380 Date Analyzed 07/13/2017 1510

Analyte Result Qual Units RL Dil Method
Heterotrophic Plate Count 90.0 CFU/mL 2.00 1.0 SIMPLATE

Anly Batch: 420-112413 Date Analyzed 07/13/2017 1550

General Chemistry

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-4

Sdg Number: Clovewood

General Chemistry	General	Chemistry
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Client Sample ID: C - 16

Lab Sample ID: 420-123595-4 Client Matrix: **Drinking Water** Date Sampled: 07/13/2017 0915 Date Received: 07/13/2017 1000

Analyte RLDil Result Qual Units Method Nitrate as N <0.250 0.250 1.0 300.0

> Anly Batch: 420-112412 Date Analyzed 07/13/2017 1658

Analyte Result Qual Units Dil Method Langelier Index -0.270 NONE 1.0 SM 2330B

mg/L

07/26/2017 1302 Anly Batch: 420-112765 Date Analyzed

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-4

Sdg Number: Clovewood

General Chemistry

Client Sample ID: C - 16

 Lab Sample ID:
 420-123595-4
 Date Sampled:
 07/13/2017
 0915

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

Analyte	Result	Qual Units	RL	Dil	Method
Alkalinity	190 Anly Batch: 420-112669	mg/L Date Analyzed 07/21/2017 1730	5.00	1.0	SM 2320B-97,-11
Total Dissolved Solids	192 Anly Batch: 420-112602	mg/L Date Analyzed 07/20/2016 1700	5.00	1.0	SM2540C-97,11
Chloride	1.62 Anly Batch: 420-112412	mg/L Date Analyzed 07/13/2017 1658	1.50	1.0	300.0 Rev. 2.1
Sulfate	9.11 Anly Batch: 420-112412	mg/L Date Analyzed 07/13/2017 1658	5.00	1.0	300.0 Rev. 2.1
Fluoride	<0.500 Anly Batch: 420-112412	mg/L Date Analyzed 07/13/2017 1658	0.500	1.0	300.0 Rev. 2.1
Cyanide, Total	<0.00500 Anly Batch: 420-112524	mg/L Date Analyzed 07/18/2017 1400	0.00500	1.0	SM4500 CN E-99
Apparent Color	Prep Batch: 30.0 Anly Batch: 420-112486	Date Prepared: 07/14/2017 1300 g Pt-Co Date Analyzed 07/13/2017 1750	2.00	1.0	SM2120B-01,11
pH@color measurement	7.29 Anly Batch: 420-112486	SU Date Analyzed 07/13/2017 1750	2.00	1.0	SM2120B-01,11
Turbidity	13.0 Anly Batch: 420-112420	g NTU Date Analyzed 07/13/2017 1813	0.100	1.0	SM2130B-01,11
Odor	1.00 Anly Batch: 420-112485	T.O.N. Date Analyzed 07/13/2017 1800	1.00	1.0	SM 2150B
Temp @ Odor Measurem	nent 60.0 Anly Batch: 420-112485	Degrees C Date Analyzed 07/13/2017 1800	5.00	1.0	SM 2150B
рН	7.29 Anly Batch: 420-112487	H SU Date Analyzed 07/13/2017 1749	0.200	1.0	SM 4500 H+ B
Temp @ pH Measuremer	·	Degrees C Date Analyzed 07/13/2017 1749	5.00	1.0	SM 4500 H+ B
Nitrite as N	<0.0100 Anly Batch: 420-112510	mg/L Date Analyzed 07/14/2017 1047	0.0100	1.0	SM 4500 NO2 B

DATA REPORTING QUALIFIERS

Client: Leggette, Brashears & Graham, Inc.

Job Number: Sdg Number: Clovewood

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Certification Information

Client: Leggette, Brashears & Graham, Inc. Job Number:

Sdg Number: Clovewood

The following analytes are Not Part of the ELAP scope of accreditation

Sulfur, Tungsten, Silicon, Bicarbonate Alkalinity, 7 Day BOD 5210C, 28 Day BOD, Soluble BOD, Carbon Dioxide, Carbonate Alkalinity, CBOD Soluble, Chlorine, Cyanide (WAD), Ferrous Iron, Ferric Iron, Total Nitrogen, Total Organic Nitrogen, Dissolved Oxygen, pH, Phenolphthalein Alkalinity, Solids (Fixed), Solids (Percent), Solids (Percent Moisture), Solids (Percent Volatile), Solids (Volatile Suspended), Temperature, TKN (Soluble), COD (Soluble), Total Inorganic Carbon, Volatile Acids as Acetic Acid, 2-Aminopyridine, 3-Picoline, 1-Methyl-2-pyrrilidinone, Aziridine, Dimethyl sulfoxide, 1-Chlorohexane, Iron Bacteria, Salmonella, & Sulfur Reducing Bacteria.

The following analytes are Not Part of ELAP Potable Water scope of accreditation

Cobalt (200.7, 200.8), Tin (200.7), Strontium (200.7), Gold (200.7), Platinum (200.7), Palladium (200.7), Titanium (200.7), Phosphorus (365.3), Nitrate-Nitrite (10-107-4-1C, 353.2), m-Xylene & p-Xylene (502.2, 524), Naphthalene (502.2), o-Xylene (502.2, 524), & Fecal Coliform (9222D).

The following analytes are Not Part of ELAP Solid and Hazardous Waste scope of accreditation

Ammonia (SM 4500NH3G), TKN (351.2), Phosphorus (365.3), 1,2-Dichloro-1,1,2-trifluoroethane (8260), & Chlorodifluoromethane (8260).

The following analytes are Not Part of ELAP Non Potable Water scope of accreditation

Dissolved Organic Carbon (5310C), Mecoprop (8151A), & MCPA (8151A).

Definitions and Glossary

Client: Leggette, Brashears & Graham, Inc. Job Number:

Sdg Number: Clovewood

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%R	Percent Recovery
DL, RA, RE	Indicates a Dilution, Reanalysis or Reextraction.
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit - an estimate of the minimum amount of a substance that an analytical process can reliably detect. A MDL is analyte- and matrix-specific and may be laboratory-dependent.
ND	Not detected at the reporting limit (or MDL if shown).
QC	Quality Control
RL	Reporting Limit - the minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.
RPD	Relative Percent Difference - a measure of the relative difference between two points

Page 16 of 18

											_									_					
EnviroTest Laboratories, Inc. CHAIN OF CUSTODY 123595-4 Lab Name EnviroTest Leboratories Address & Phone S15 Fullerton Avenue, Newburgh, New York 12550 845-562-0890																									
PROJECT REF		ovewor	od	Į,	ROJECT NO.		PROJECT LOCATION		MATE TYP		1					REQU	JIRED	ANAL	YSES					PAGE 1 of	1
ENVIROTEST PROJECT MANAGER P.O. NUMBER TOWN Debra Bayer							MPA C/G kit	40ml Vials HCI	ım Thio.	m Thio.	Na2S03	ric Acid	(liquid)	Liter Plastic	лт Нуд.	c Sterile	ic Nitric	Unpres		TURNAROUND TIME					
CLIENT (SITE) PM LBG, Inc. CLIENT PHONE 203-929-8555		CLIENT FAX	NCATE	Water) Indicate			MP/	40ml \	40ml Sodium Thio	250ml Amber Sodium Thio	Liter Amber HCI/Na2SO3	250ml Plastic Nitric Acid	40ml Mon/Sod.Thio(liquid	Life	250ml Plastic Sodium Hyd	125ml Plastic Sterile	Liter Plastic Nitric	40ml Vials Unpres	NORMAL	X					
CLIENT NAME		cy Stie	ber					(G) IND	ste Wa	11	1	ŀ		4	, Aml	er An	Oml P	M M		I Pia	125	۱ ۱	4	QUICK	
CLIENT ADDR	IESS			nolton (OT 06484			R GRAB	or W (Wz	吕					250m	5	53	40m		250n				VERBAL.	
	NTRACTIN	NG THIS W	ORK (il applica		J1 0040-		1	DSITE (C) (king Water)	SOLID OR SEMISOLID	Specify													#OF COOLERS	
DAT	SAMPL E	E TIM	E		SAMPL	E IDENTIFICA	TION	COMPOSIT	D (Drin	SOLIO	OTHER	NUMBER OF CONTAINERS					S SUB	SUBMITTED				REMARKS			
7/13	10	91	5		(-1	6		\prod	D	\prod			3	2	1	2	1	2	4	1	2	5	2	Table 8B (Sb,A	s,Ba,Be,Cd,Cr,Cn,Hg,Ni
11/									7)															Se,TI,F)	
								Ц	\parallel	Ц					<u> </u>									Table 8C (NO3,	NO2)
						<u> </u>			Ц		2	2-Liter	Ambe	r Unpre	9S.						<u> </u>			Table 8D (Cl,Fe	e,Mn,Ag,Na,SO4,Zn,Odor,Color)
								Ш	1	Ш	1	1-250n	ni Amb	er Unp	res.									524.2 (POC,MT	BE,Vinyl Chloride)
											:	3-250n	ni Plas	tic Unp	ores. (n	o air)								SOCs (504,508	,515,525,531,547,548,549,Dioxin)
											2	2-40ml	l Ambe	r Sodiı	ım Thi	э.								Additional Tes	ts (Total coliform
									\prod	\prod		1-500r	nl Amb	er Soc	lium Th	iìo.								thru Zinc)	
									I		_	1-Liter	Ambe	r Plasti	lc Sodi	ım Thi	o.&H2	SO4						Radio(Gross A	lpha/Beta,Radium-226/228,Uranium)
	,		,					\prod		\prod	1	2-Liter	Ambe	r Sodiu	ım Thic). -								Radon	
V		$\square V$							\mathbb{V}	Ή														Dissolved Fe,	Mn
	1		\mathcal{X}																						
RELINQUI	HED BY	Y: (SIGN	ANURE)	6	COMPAN	34	7/13/17	TIME	14	13			IVED F			,					COMP			DATE	TIME
SAMPHEREY (SIGNATURE) COMPANY DATE 171ME				5			IVED E								COMP			DATE	TIME						
REKINQUI	RELINQUISHED BY: (SIGNATURE) COMPANY DATE TIME RECEIVED BY: (SIGNATURE) COMPANY DATE TIME																								
SUBCO	NTAC	T: PA	CE-800				PA/Crypto/Glare																		
RECEIVED	FOR LA	ABORAT	ORY BY:	1	DATE	TIME	CUSTODY INTACT YES						HATO		MARK	S:	10E_	р	H	CL2		Revel	wed by		
	/ n	,		1	7/13M	11113	NO	3	J) '	7	-	<i>17</i> 74	72												•

LOGIN SAMPLE RECEIPT CHECK LIST

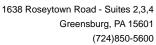
Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-4

SDG Number: Clovewood

Login Number: 123595

Question	T/F/NA	Comment
Samples were collected by ETL employee as per SOP-SAM-1	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is recorded.	True	3.5C
Cooler Temp. is within method specified range. (0-6 C PW, 0-8 C NPW, or BAC <10 $$ C	True	
If false, was sample received on ice within 6 hours of collection.	NA	
Based on above criteria cooler temperature is acceptable.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	False	рН
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	





August 03, 2017

Ms. Debra Bayer EnviroTest Laboratories, Inc. 315 Fullerton Avenue Newburgh, NY 12550

RE: Project: 42001269

Pace Project No.: 30224101

Dear Ms. Bayer:

Enclosed are the analytical results for sample(s) received by the laboratory on July 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins

Suguely Cellins

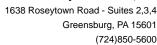
jacquelyn.collins@pacelabs.com

(724)850-5612 **Project Manager**

Enclosures

cc: Janine Rader, EnviroTest Laboratories, Inc.







CERTIFICATIONS

Project: 42001269
Pace Project No.: 30224101

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683 Georgia Certification #: C040

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification Missouri Certification #: 235 Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282

Montana Certification #: Cert 0082

Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282 South Dakota Certification

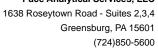
Tanasasa Cartification # T

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

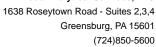




SAMPLE SUMMARY

Project: 42001269
Pace Project No.: 30224101

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30224101001	C-16 (420-123595-4)	Drinking Water	07/13/17 09:15	07/14/17 10:20

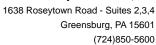




SAMPLE ANALYTE COUNT

Project: 42001269
Pace Project No.: 30224101

Lab ID Sample ID		Method	Analysts	Analytes Reported	
30224101001	C-16 (420-123595-4)	SM7500RnB-07	NEG	1	
		EPA 900.0	NEG	2	
		EPA 903.1	WRR	1	
		EPA 904.0	VAL	1	
		ASTM D5174-97	RMK	1	

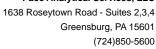




ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 42001269
Pace Project No.: 30224101

Sample: C-16 (420-123595-4) PWS:	Lab ID: 30224 Site ID:	Collected: 07/13/17 09:15 Sample Type:	Received:	07/14/17 10:20	Matrix: Drinking	Water
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radon	SM7500RnB-07	59.3 ± 29.2 (46.2) C:NA T:NA	pCi/L	07/15/17 07:07	10043-92-2	
Gross Alpha	EPA 900.0	1.85 ± 1.52 (2.65) C:NA T:NA	pCi/L	07/24/17 08:50	12587-46-1	
Gross Beta	EPA 900.0	1.01 ± 0.753 (1.47) C:NA T:NA	pCi/L	07/24/17 08:50	12587-47-2	
Radium-226	EPA 903.1	0.503 ± 0.364 (0.412) C:NA T:93%	pCi/L	07/26/17 13:09	13982-63-3	
Radium-228	EPA 904.0	0.372 ± 0.301 (0.613) C:75% T:91%	pCi/L	07/27/17 11:16	15262-20-1	
Total Uranium	ASTM D5174-97	0.558 ± 0.019 (0.193) C:NA T:NA	ug/L	08/03/17 16:28	3 7440-61-1	





Project:

42001269

Pace Project No.:

30224101

QC Batch:
QC Batch Method:

265143

ASTM D5174-97

Analysis Method:

ASTM D5174-97

Analysis Description:

D5174.97 Total Uranium KPA

Associated Lab Samples:

30224101001

METHOD BLANK: 1306496

Matrix: Water

Associated Lab Samples:

30224101001

Parameter

Act ± Unc (MDC) Carr Trac

Units ug/L Analyzed

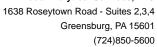
Qualifiers

Total Uranium

0.064 ± 0.004 (0.193) C:NA T:NA

08/03/17 11:33

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project:

42001269

Pace Project No.:

30224101

QC Batch:

265053

QC Batch Method: SM7

SM7500RnB-07

Analysis Method:

SM7500RnB-07

Analysis Description:

7500Rn B Radon

Associated Lab Samples: 302

30224101001

Matrix: Water

METHOD BLANK: 1305441 Associated Lab Samples: 3

30224101001

Parameter

Act ± Unc (MDC) Carr Trac

Units

Analyzed

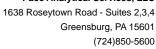
Qualifiers

Radon

2.8 ± 18.8 (32.7) C:NA T:NA

pCi/L 07/15/17 02:40

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project: 42

42001269

Pace Project No.:

30224101

QC Batch:

265152

52 Analysis Method:

EPA 903.1

QC Batch Method:

EPA 903.1

Analysis Description:

903.1 Radium-226

Associated Lab Samples:

30224101001

Matrix: Water

Associated Lab Samples:

METHOD BLANK: 1306510

ples: 30224101001

Parameter

Act ± Unc (MDC) Carr Trac

Units pCi/L Analyzed

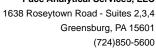
Qualifiers

Radium-226

0.159 ± 0.312 (0.570) C:NA T:95%

07/26/17 12:14

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project: 42001269
Pace Project No.: 30224101

QC Batch: 265148 Analysis Method: EPA 900.0

QC Batch Method: EPA 900.0 Analysis Description: 900.0 Gross Alpha/Beta

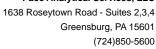
Associated Lab Samples: 30224101001

METHOD BLANK: 1306505 Matrix: Water

Associated Lab Samples: 30224101001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers	
Gross Alpha	-0.333 ± 0.399 (1.52) C:NA T:NA	pCi/L	07/24/17 08:35		
Gross Beta	-0.362 ± 0.578 (1.62) C:NA T:NA	pCi/L	07/24/17 08:35		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project:

42001269

Pace Project No.:

30224101

QC Batch:

265158

Analysis Method:

Matrix: Water

EPA 904.0

QC Batch Method: EPA 904.0 Analysis Description:

904.0 Radium 228

Associated Lab Samples:

30224101001

METHOD BLANK: 1306521

Associated Lab Samples:

Parameter

30224101001

Act ± Unc (MDC) Carr Trac

Units pCi/L Analyzed

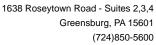
Qualifiers

Radium-228

 $0.0810 \pm 0.316 \quad (0.717) \text{ C:}75\% \text{ T:}85\%$

07/27/17 11:14

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





QUALIFIERS

Project: 42001269
Pace Project No.: 30224101

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Date: 08/03/2017 04:47 PM

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Chain of Custody Record

Laboratories Inc.

EnviroTest

Newburgh, NY 12550 Phone (845) 562-0890 Fax (845) 562-0841 EnviroTest Laboratories, Inc. 315 Fullerton Avenue

N - None
O - Ashado
P - Nazoka
Q - Nazoka
Q - Nazosa
R - Nazoszosa
R - Nazoszosa
R - Nazoszoska
R - Nazoszoska
R - Nazoszoska
R - Nazoka
W - Pin 4-5
Z - other (specify) Special Instructions/Note: Months Spices A Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mont STL Job #: 420-123595-4 Preservation Codes: E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid Page: Page 1 of 1 A - HCL B - NaOH C - Zn Acetate D - Nitric Acid COC No: 420-9120.1 I - ico J - DI Water K - EDTA L - EDA 〒30224101 grenistnop to redmuN istoT Carrier Tracking No(s) Analysis Requested Special Instructions/QC Requirements: E-Mail: dbayer@envirotestlaboratories.com × SUBCONTRACT/ Radon × SUBCONTRACT/ Total Uranium SUBCONTRACTI 900 GAIGBIRA 226/RA 228 Lab PM: Bayer, Debra CALTO SWIJ DISWISH WIGHT Field Filtered Sample (Yes or No) BT=Tissue, A=Air Preservation Code: (W=water, S=solid, O=waste/olf, Water Matrix 7 BUTIES F Radiological Sample (C=comp, G=grab) Type Samler Strebe of (130 Sample Time 9:15 Unknown FAT Requested (days): Due Date Requested: 7/27/2017 Sample Date 7//3/17 Project#: 42001269 ₩Q₩ PO # Poison B Skin Imtant Client Information (Sub Contract Lab) Deliverable Requested: I, II, III, IV, Other (specify) C - 16 (420-123595-4) Sample Identification Client ID (Lab ID) Address: 1638 Roseytown Rd, Suites 2,3,4, Company: Pace Analytical Services, Inc. Empty Kit Relinquished by: Shipping/Receiving Greensburg State, Zip: PA, 15601 Project Name: LBG, Inc. Phone: Email:

D126

7

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Method of Shipment:

Time

アンド

Date:

Company Sompany Company

> Date/Time: Date/Time:

> > Cooler Temperature(s) °C and Other Remarks:

Received by:

Company

Date/Time: Date/Time

Custody Seal No.:

Custody Seals Intact:

A Yes A No

linquished by:

Sample Condition Upon Rec	elpt F	Pitts	ourg	jh		30224
Pace Analytical Client Name:	E	nu.:	rot	est labos.	_ Project#	The state of the s
Courler: Fed Ex UPS USPS Olie	nt 🗆	bomm	ercial	Pace Other		Label 3H-
- 1-1 DOG 254733	3 O				_	Limo Login 1111
Custody Seal on Cooler/Box Present:		Uo	Sea	us Intact: Dyes	no	
4	Tuno	of lea	• (IA4	er Afue None		۰۵ سے د
Thermometer Used Cooler Temperature Observed Temp	3.5	· °C	Cor	rection Factor <u>: 🗢</u>	<u>੍</u> ਨੂ ^{°C} Final	Temp: 5 5
Temp should be above freezing to 6°C				_	Date and	Initials of person examining
Comments:	Yes	No	N/A	4		
Chain of Custody Present:	1	ļ		1.		
Chain of Custody Filled Oul:	1		ļ	2		
Chain of Custody Relinquished:	1	L.,	ļ	3		
Sampler Name & Signature on COC:	<u> </u>	/	<u> </u>	4		
Sample Labels match COC:	/	<u> </u>		5.		######################################
-Includes dale/lime/ID Mairix:	WT		-			
Samples Arrived within Hold Time:			<u></u>	6	· <u> </u>	
Short Hold Time Analysis (<72hr remaining):	1		<u></u>	7		
Rush Turn Around Time Requested:		/		8	·	
Sufficient Volume:	/			9,		
Correct Containers Used:				_ 10.		
-Pace Containers Used:		1				
Containers intact:	1			11		
Orthophosphate Reid filtered				12,	·	
Organic Samples checked for dechlorination:			1	13.		
Ellored volume received for Dissolved tests			_/	14		
All containers have been checked for preservation.				15.		
All containers neading preservation are found to be in compliance with EPA recommendation.	/				Date/time of	
•				initial when Ed	preservation	
exceptions: VOA, coliform, TOC, O&G, Phenolics		· ·- · · · · · · · · · · · · · · · ·		Loi # of added preservalive		
-leadspace in VOA Vials (>6mm);			1	16		
Trip Blank Present:	<u> </u>			17.		
Trin Blank Custorly Seals Present				Initial when	7 51	14/17
Rad Aqueous Samples Screened > 0.5 mrem/hr		1		completed: 714	Date:	1911 +
Client Notification/ Resolution:						
Person Contacted:			Date/T	īme:	Contacte	ed B <u>y:</u>
Comments/ Resolution:						
		·			in Augrania	
A chack in this hox indicates that addit	ional ir	nform	ation	has been stored i	n ereports.	His Corolina DEHMR
tote: Whenever there is a discrepancy affecting North Car	olina cor	npilance	e samp	oles, a copy of this form	will be sent to the No	LU CALOUIIR DEVINO
edification Office ().a. but of hold, alcohold processing the process of the pro	out of ter Project	mp, inco Manago	er clos	es the SRF Review sch	edule in LIMS, The re	eview is in the Status section
lhe Workorder Edit Screen.						

J:\QAQC\Master\Document Management\Sample Mgi\Sample Condition Upon Receipt Pfttsburgh (C056-5 5July2017)





August 15, 2017

Ron Bayer EnviroTest Laboratories Inc. 315 Fullerton Avenue Newburgh, NY 12550

RE: Project: LBG,Inc 42001269

Pace Project No.: 35324056

Dear Ron Bayer:

Enclosed are the analytical results for sample(s) received by the laboratory on July 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

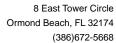
Sincerely,

Bo Garcia bo.garcia@pacelabs.com (386)672-5668 Project Manager

Enclosures

cc: Debra Bayer, EnviroTest Laboratories Inc. Renee Cusack, EnviroTest Laboratories Inc. Laura Marciano, EnviroTest Laboratories Inc. Janine Rader, EnviroTest Laboratories Inc. Meredith Ruthven, EnviroTest Laboratories Inc.







CERTIFICATIONS

Project: LBG,Inc 42001269

Pace Project No.: 35324056

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174

Alabama Certification #: 41320 Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

Florida Certification #: E83079 Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Louisiana Certification #: FL NELAC Reciprocity

Louisiana Environmental Certificate #: 05007

Maryland Certification: #346 Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236

Montana Certification #: Cert 0074

Maryland Certification #: 208

Rhode Island Certification #: LAO00340 Massachusetts Certification #: M-NY026 New Hampshire Certification #: 2987

Nebraska Certification: NE-OS-28-14

New Jersey Certification #: FL022

North Carolina Certification #: 12710

Pennsylvania Certification #: 68-00547

Puerto Rico Certification #: FL01264 South Carolina Certification: #96042001

Tennessee Certification #: TN02974

West Virginia Certification #: 9962C

Wisconsin Certification #: 399079670

Texas Certification: FL NELAC Reciprocity

Virginia Environmental Certification #: 460165 Wyoming Certification: FL NELAC Reciprocity

Wyoming (EPA Region 8): FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity

New York Certification #: 11608

Oklahoma Certification #: D9947

Nevada Certification: FL NELAC Reciprocity

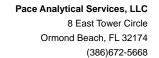
North Carolina Environmental Certificate #: 667

Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158 Pennsylvania Certification #: 68-00350 Connecticut Certification #: PH-0435





SAMPLE SUMMARY

Project: LBG,Inc 42001269

Pace Project No.: 35324056

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35324056001	C-16	Drinking Water	07/13/17 09:15	07/14/17 11:10



SAMPLE ANALYTE COUNT

Project: LBG,Inc 42001269

Pace Project No.: 35324056

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35324056001	C-16	EPA 504.1	BP1	2	PASI-O
		EPA 505	MMR	3	
		EPA 508.1	NS1	18	PASI-O
		EPA 515.3	LJM	8	PASI-O
		EPA 531.1	WFH	9	PASI-O
		EPA 547	NMB	1	PASI-O
		EPA 549.2	NMB	1	PASI-O
		EPA 525.2	NS1	7	PASI-O
		EPA 548.1	JDT	1	PASI-O



ANALYTICAL RESULTS

Project: LBG,Inc 42001269

Pace Project No.: 35324056

Date: 08/15/2017 02:19 PM

Sample: C-16	Lab ID:	35324056001	Collecte	d: 07/13/17	7 09:15	Received: 07/	14/17 11:10 Ma	atrix: Drinking	Water
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504.1 GCS EDB and DBCP	Analytical	Method: EPA 5	04.1 Prepa	aration Meth	od: EP	A 504.1			
1,2-Dibromo-3-chloropropane	<0.0055	ug/L	0.017	0.0055	1		07/18/17 18:23		
1,2-Dibromoethane (EDB)	<0.0064	ug/L	0.0086	0.0064	1	07/18/17 07:15	07/18/17 18:23	106-93-4	
505 GCS Pesticides/PCBs	Analytical	Method: EPA 5	05 Prepara	ation Metho	d: EPA	505			
Aldrin	<0.025	ug/L	0.025	0.025	1	07/20/17 16:38	07/21/17 00:52	309-00-2	
Surrogates	00	0.4	00.450		4	07/00/47 40 00	07/04/47 00 50	077 00 0	
Tetrachloro-m-xylene (S)	88	%.	30-150		1	07/20/17 16:38	07/21/17 00:52		
Decachlorobiphenyl (S)	57	%.	30-150		1	07/20/17 16:38	07/21/17 00:52	2051-24-3	
508.1 GCS Pesticides	Analytical	Method: EPA 5	08.1 Prepa	aration Meth	od: EP	A 508.1			
Alachlor	<0.037	ug/L	0.21	0.037	1	07/21/17 15:45	07/28/17 04:17	15972-60-8	
Atrazine	<0.067	ug/L	0.11	0.067	1	07/21/17 15:45	07/28/17 04:17	1912-24-9	
gamma-BHC (Lindane)	< 0.0032	ug/L	0.021	0.0032	1	07/21/17 15:45	07/28/17 04:17	58-89-9	
Butachlor	<0.029	ug/L	0.11	0.029	1	07/21/17 15:45	07/28/17 04:17	23184-66-9	
Chlordane (Technical)	<0.050	ug/L	0.21	0.050	1	07/21/17 15:45	07/28/17 04:17	57-74-9	
Dieldrin	<0.020	ug/L	0.11	0.020	1	07/21/17 15:45	07/28/17 04:17	60-57-1	
Endrin	< 0.0074	ug/L	0.011	0.0074	1	07/21/17 15:45	07/28/17 04:17	72-20-8	
Heptachlor	< 0.013	ug/L	0.042	0.013	1	07/21/17 15:45	07/28/17 04:17	76-44-8	
Heptachlor epoxide	< 0.0032	ug/L	0.021	0.0032	1	07/21/17 15:45	07/28/17 04:17	1024-57-3	
Hexachlorobenzene	<0.020	ug/L	0.11	0.020	1	07/21/17 15:45	07/28/17 04:17	118-74-1	
Hexachlorocyclopentadiene	< 0.034	ug/L	0.11	0.034	1	07/21/17 15:45	07/28/17 04:17	77-47-4	
Methoxychlor	< 0.054	ug/L	0.11	0.054	1	07/21/17 15:45	07/28/17 04:17	72-43-5	
Metolachlor	< 0.050	ug/L	0.11	0.050	1	07/21/17 15:45	07/28/17 04:17	51218-45-2	
PCB, Total	<0.084	ug/L	0.11	0.084	1	07/21/17 15:45	07/28/17 04:17	1336-36-3	
Propachlor	<0.032	ug/L	0.11	0.032	1		07/28/17 04:17		
Simazine	< 0.073	ug/L	0.074	0.073	1	07/21/17 15:45			
Toxaphene	<0.64	ug/L	1.1	0.64	1	07/21/17 15:45			
Surrogates	10.0	~9 <i>,</i> =		0.0	•	01,21,11	0.720, 0	000.002	
Decachlorobiphenyl (S)	106	%	70-130		1	07/21/17 15:45	07/28/17 04:17	2051-24-3	
515.3 Chlorinated Herbicides	Analytical	Method: EPA 5	15.3 Prepa	aration Meth	od: EP	A 515.3			
2,4-D	<0.081	ug/L	0.10	0.081	1	07/20/17 09:35	07/22/17 07:41	94-75-7	
Dalapon	<0.89	ug/L	1.0	0.89	1	07/20/17 09:35	07/22/17 07:41	75-99-0	
Dicamba	< 0.067	ug/L	0.10	0.067	1	07/20/17 09:35	07/22/17 07:41	1918-00-9	L1
Dinoseb	<0.16	ug/L	0.20	0.16	1	07/20/17 09:35	07/22/17 07:41	88-85-7	
Pentachlorophenol	<0.030	ug/L	0.040	0.030	1		07/22/17 07:41		
Picloram	< 0.094	ug/L	0.10	0.094	1		07/22/17 07:41		
2,4,5-TP (Silvex)	<0.16	ug/L	0.20	0.16	1		07/22/17 07:41		
Surrogates		J							
2,4-DCAA (S)	97	%	70-130		1	07/20/17 09:35	07/22/17 07:41	19719-28-9	
531.1 HPLC Carbamates	Analytical	Method: EPA 5	31.1						
Aldicarb	<0.64	ug/L	2.0	0.64	1		07/18/17 17:04	116-06-3	
Aldicarb sulfone	<0.37	ug/L	2.0	0.37	1		07/18/17 17:04	1646-88-4	
Aldicarb sulfoxide	<0.59	ug/L	2.0	0.59	1		07/18/17 17:04	1646-87-3	
Carbofuran	<0.32	ug/L	2.0	0.32	1		07/18/17 17:04	1563-66-2	



ANALYTICAL RESULTS

Project: LBG,Inc 42001269

Pace Project No.: 35324056

Date: 08/15/2017 02:19 PM

Sample: C-16	Lab ID:	35324056001	Collecte	d: 07/13/17	09:15	Received: 07/	/14/17 11:10 Ma	atrix: Drinking	Water
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
531.1 HPLC Carbamates	Analytical	Method: EPA 5	31.1						
3-Hydroxycarbofuran	<0.45	ug/L	2.0	0.45	1		07/18/17 17:04	16655-82-6	
Methomyl	<0.57	ug/L	2.0	0.57	1		07/18/17 17:04	16752-77-5	
Oxamyl	<0.55	ug/L	2.0	0.55	1		07/18/17 17:04	23135-22-0	
Carbaryl	<0.27	ug/L	2.0	0.27	1		07/18/17 17:04	63-25-2	
Surrogates		-							
BDMC (S)	111	%	80-120		1		07/18/17 17:04		
547 HPLC Glyphosate	Analytical	Method: EPA 5	47						
Glyphosate	<4.2	ug/L	6.0	4.2	1		07/20/17 05:13		
549.2 HPLC Paraquat Diquat	Analytical	Method: EPA 5	49.2 Prepa	aration Meth	od: EP/	A 549.2			
Diquat	<0.30	ug/L	0.40	0.30	1	07/19/17 11:00	07/20/17 02:33	85-00-7	
525.2 Base Neutral Extractable	Analytical	Method: EPA 5	25.2 Prepa	aration Meth	od: EP/	A 525.2			
Benzo(a)pyrene	<0.013	ug/L	0.096	0.013	1	07/25/17 10:30	07/26/17 15:02	50-32-8	L2
bis(2-Ethylhexyl)adipate	<0.37	ug/L	1.5	0.37	1	07/25/17 10:30	07/26/17 15:02	103-23-1	
bis(2-Ethylhexyl)phthalate	<0.48	ug/L	1.9	0.48	1	07/25/17 10:30	07/26/17 15:02	117-81-7	
Metribuzin	<0.14	ug/L	0.29	0.14	1	07/25/17 10:30	07/26/17 15:02	21087-64-9	
Surrogates		•							
1,3-Dimethyl-2-nitrobenzene(S)	153	%	70-130		1	07/25/17 10:30	07/26/17 15:02	81209	S3
Perylene-d12 (S)	107	%	70-130		1	07/25/17 10:30	07/26/17 15:02	1520963	
Triphenylphosphate (S)	85	%	70-130		1	07/25/17 10:30	07/26/17 15:02	115-86-6	
548.1 GCS Endothall	Analytical	Method: EPA 5	48.1 Prepa	aration Meth	od: EP/	A 548.1			
Endothall	<4.3	ug/L	9.0	4.3	1	07/19/17 17:00	07/24/17 23:53		L2,L5



Project: LBG,Inc 42001269

Pace Project No.: 35324056

Date: 08/15/2017 02:19 PM

QC Batch: 381535 Analysis Method: EPA 531.1

QC Batch Method: EPA 531.1 Analysis Description: 531.1 HPLC Carbamate

Associated Lab Samples: 35324056001

METHOD BLANK: 2070180 Matrix: Water

Associated Lab Samples: 35324056001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
3-Hydroxycarbofuran	ug/L	<0.45	2.0	0.45	07/18/17 12:36	
Aldicarb	ug/L	< 0.64	2.0	0.64	07/18/17 12:36	
Aldicarb sulfone	ug/L	< 0.37	2.0	0.37	07/18/17 12:36	
Aldicarb sulfoxide	ug/L	< 0.59	2.0	0.59	07/18/17 12:36	
Carbaryl	ug/L	<0.27	2.0	0.27	07/18/17 12:36	
Carbofuran	ug/L	< 0.32	2.0	0.32	07/18/17 12:36	
Methomyl	ug/L	<0.57	2.0	0.57	07/18/17 12:36	
Oxamyl	ug/L	< 0.55	2.0	0.55	07/18/17 12:36	
BDMC (S)	%	120	80-120		07/18/17 12:36	

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
-Hydroxycarbofuran	ug/L		10.3	103	80-120	
ldicarb	ug/L	10	11.2	112	80-120	
ldicarb sulfone	ug/L	10	10.9	109	80-120	
ldicarb sulfoxide	ug/L	10	12.0	120	80-120	
ırbaryl	ug/L	10	12.0	120	80-120	
arbofuran	ug/L	10	11.7	117	80-120	
ethomyl	ug/L	10	10.6	106	80-120	
xamyl	ug/L	10	11.8	118	80-120	
DMC (S)	%			118	80-120	

MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	TE: 20701	82		2070183							
	3	5323850001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
3-Hydroxycarbofuran	ug/L	0.45U	10	10	10	10.2	100	102	80-120	2	20	
Aldicarb	ug/L	0.64U	10	10	10.5	10.3	105	103	80-120	3	20	
Aldicarb sulfone	ug/L	0.37U	10	10	9.5	9.8	95	98	80-120	4	20	
Aldicarb sulfoxide	ug/L	0.59U	10	10	11.2	11.0	112	110	80-120	2	20	
Carbaryl	ug/L	0.27U	10	10	12.0	11.5	120	115	80-120	4	20	
Carbofuran	ug/L	0.32U	10	10	11.3	10.5	113	105	80-120	7	20	
Methomyl	ug/L	0.57U	10	10	10.5	11.1	105	111	80-120	6	20	
Oxamyl	ug/L	0.55U	10	10	10.2	10.0	102	100	80-120	2	20	
BDMC (S)	%						103	98	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324056

Date: 08/15/2017 02:19 PM

QC Batch: 382091 Analysis Method: EPA 547

QC Batch Method: EPA 547 Analysis Description: 547 HPLC Glyphosate

Associated Lab Samples: 35324056001

METHOD BLANK: 2073233 Matrix: Water

Associated Lab Samples: 35324056001

Blank Reporting
Parameter Units Result Limit MDL Analyzed Qualifiers

Glyphosate ug/L <4.2 6.0 4.2 07/20/17 02:06

LABORATORY CONTROL SAMPLE: 2073234

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Glyphosate ug/L 50 52.3 105 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2073235 2073236

MS MSD MS 35324897001 Spike Spike MS MSD MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual 0.0042U 50 50 48.2 80-120 0 30 Glyphosate ug/L 48.4 96 97 mg/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2073237 2073238

MS MSD 35324066001 Spike Spike MS MSD MS MSD % Rec Max % Rec RPD RPD Units Result Conc. Qual Parameter Conc. Result Result % Rec Limits Glyphosate 50 50 51.2 49.9 102 80-120 3 30 ug/L <4.2 100

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:

LBG,Inc 42001269

Pace Project No.:

35324056

QC Batch:

381399

QC Batch Method:

EPA 504.1

Analysis Method:

EPA 504.1

Analysis Description:

504 EDB DBCP

Associated Lab Samples:

35324056001

2069376 METHOD BLANK:

Matrix: Water

Associated Lab Samples:

35324056001

Blank Result Reporting

Limit

MDL

Analyzed 07/18/17 13:43 Qualifiers

1,2-Dibromo-3-chloropropane 1,2-Dibromoethane (EDB)

ug/L ug/L

Units

< 0.0064 < 0.0075 0.020 0.010

LCSD

Result

2070240

MS

0.0064 0.0075

07/18/17 13:43

LABORATORY CONTROL SAMPLE & LCSD:

Parameter

Parameter

2069377

Spike LCS 2070238

LCSD

% Rec

1,2-Dibromoethane (EDB)

1,2-Dibromo-3-chloropropane

Date: 08/15/2017 02:19 PM

ug/L ug/L

35324127010

Units

Conc. Result .25 0.27 .25 0.29

% Rec 109 0.24 0.25 116

LCS

96 70-130 101 70-130

% Rec

Limits

RPD

RPD Qualifiers 40

12 13 40

Max

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

2070239

MS Spike

MSD Spike Conc.

MSD

MS

MSD

% Rec

Max RPD RPD

Qual 2 40 M1

Parameter Units Result Conc. Result Result % Rec % Rec Limits 1,2-Dibromo-3ug/L < 0.0055 .44 .44 0.64 0.63 146 143 65-135 chloropropane 1,2-Dibromoethane (EDB) ug/L < 0.0064 .44 .44 0.64 0.63 146 145 65-135 40 M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



EPA 505

Project: LBG,Inc 42001269

Pace Project No.: 35324056

Date: 08/15/2017 02:19 PM

QC Batch: 32255

QC Batch Method: EPA 505 Analysis Description: 505 GCS Pesticides

Associated Lab Samples: 35324056001

METHOD BLANK: 149103 Matrix: Water

Associated Lab Samples: 35324056001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Aldrin	ug/L	<0.025	0.025	0.025	07/20/17 18:40	
Decachlorobiphenyl (S)	%.	75	30-150		07/20/17 18:40	
Tetrachloro-m-xylene (S)	%.	85	30-150		07/20/17 18:40	

Analysis Method:

LABORATORY CONTROL SAMPLE:	149104					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	.048	0.047	98	70-130	
Decachlorobiphenyl (S)	%.			95	30-150	
Tetrachloro-m-xylene (S)	%.			94	30-150	

LABORATORY CONTROL SAMPLE:	149105					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	.0095	<0.025	97	70-130	
Decachlorobiphenyl (S)	%.			89	30-150	
Tetrachloro-m-xylene (S)	%.			95	30-150	

MATRIX SPIKE SAMPLE:	149106						
		7024421001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	<0.025	.095	0.092	96	65-135	
Decachlorobiphenyl (S)	%.				75	30-150	
Tetrachloro-m-xylene (S)	%.				97	30-150	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324056

Date: 08/15/2017 02:19 PM

QC Batch: 382070 Analysis Method: EPA 508.1

QC Batch Method: EPA 508.1 Analysis Description: 508 GCS Pesticide

Associated Lab Samples: 35324056001

METHOD BLANK: 2073167 Matrix: Water

Associated Lab Samples: 35324056001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Alachlor	ug/L	<0.035	0.20	0.035	07/26/17 10:06	
Atrazine	ug/L	< 0.063	0.10	0.063	07/26/17 10:06	
Butachlor	ug/L	< 0.027	0.10	0.027	07/26/17 10:06	
Chlordane (Technical)	ug/L	< 0.047	0.20	0.047	07/26/17 10:06	
Dieldrin	ug/L	< 0.019	0.10	0.019	07/26/17 10:06	
Endrin	ug/L	< 0.0070	0.010	0.0070	07/26/17 10:06	
gamma-BHC (Lindane)	ug/L	< 0.0030	0.020	0.0030	07/26/17 10:06	
Heptachlor	ug/L	< 0.012	0.040	0.012	07/26/17 10:06	
Heptachlor epoxide	ug/L	< 0.0030	0.020	0.0030	07/26/17 10:06	
Hexachlorobenzene	ug/L	< 0.019	0.10	0.019	07/26/17 10:06	
Hexachlorocyclopentadiene	ug/L	< 0.032	0.10	0.032	07/26/17 10:06	
Methoxychlor	ug/L	< 0.051	0.10	0.051	07/26/17 10:06	
Metolachlor	ug/L	< 0.047	0.10	0.047	07/26/17 10:06	
Propachlor	ug/L	< 0.030	0.10	0.030	07/26/17 10:06	
Simazine	ug/L	< 0.069	0.070	0.069	07/26/17 10:06	
Toxaphene	ug/L	<0.61	1.0	0.61	07/26/17 10:06	
Decachlorobiphenyl (S)	%	103	70-130		07/26/17 10:06	

LABORATORY CONTROL SAMPLE:	2073168					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Alachlor	ug/L		1.0	100	70-130	
Atrazine	ug/L	1.2	1.2	97	70-130	
Butachlor	ug/L	.5	0.48	96	70-130	
Dieldrin	ug/L	.5	0.51	103	70-130	
Endrin	ug/L	.05	0.053	106	70-130	
gamma-BHC (Lindane)	ug/L	.1	0.10	102	70-130	
Heptachlor	ug/L	.2	0.18	91	70-130	
Heptachlor epoxide	ug/L	.1	0.10	100	70-130	
Hexachlorobenzene	ug/L	.5	0.46	92	70-130	
Hexachlorocyclopentadiene	ug/L	.5	0.47	94	70-130	
Methoxychlor	ug/L	.5	0.53	107	70-130	
Metolachlor	ug/L	.5	0.48	96	70-130	
Propachlor	ug/L	.5	0.48	96	70-130	
Simazine	ug/L	.88	0.78	89	70-130	
Decachlorobiphenyl (S)	%			105	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324056

Date: 08/15/2017 02:19 PM

MATRIX SPIKE & MATRIX SPI	KE DUPLICA	TE: 20749	71		2074972							
			MS	MSD								
	3	5323850001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
Alachlor	ug/L	0.034U	2	2	2.0	1.9	100	97	65-135	3	40	
Atrazine	ug/L	0.061U	2.5	2.5	2.6	3.1	102	123	65-135	19	40	
Butachlor	ug/L	0.026U	1	1	0.93	0.89	93	89	65-135	4	40	
Chlordane (Technical)	ug/L	0.045U			< 0.094	< 0.094					40	
Dieldrin	ug/L	0.018U	1	1	1.0	1.0	104	104	65-135	0	40	
Endrin	ug/L	0.0067U	.1	.1	0.11	0.11	107	107	65-135	0	40	
gamma-BHC (Lindane)	ug/L	0.0029U	.2	.2	0.22	0.22	110	111	65-135	1	40	
Heptachlor	ug/L	0.012U	.4	.4	0.70	0.81	174	201	65-135	14	40	M1
Heptachlor epoxide	ug/L	0.0029U	.2	.2	0.21	0.21	104	103	65-135	0	40	
Hexachlorobenzene	ug/L	0.018U	1	1	1.0	1.1	102	111	65-135	8	40	
Hexachlorocyclopentadiene	ug/L	0.031U	1	1	1.2	1.0	116	105	65-135	10	40	
Methoxychlor	ug/L	0.049U	1	1	1.0	0.97	101	97	65-135	4	40	
Metolachlor	ug/L	0.045U	1	1	0.95	0.95	95	95	65-135	0	40	
Propachlor	ug/L	0.029U	1	1	1.0	1.2	103	123	65-135	17	40	
Simazine	ug/L	0.066U	1.8	1.8	0.62	0.68	36	39	65-135	9	40	M1
Toxaphene	ug/L	0.58U			<1.2	<1.2					40	
Decachlorobiphenyl (S)	%						94	94	70-130		40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324056

Date: 08/15/2017 02:19 PM

QC Batch: 382064 Analysis Method: EPA 515.3

QC Batch Method: EPA 515.3 Analysis Description: 5153 GCS Herbicides

Associated Lab Samples: 35324056001

METHOD BLANK: 2073155 Matrix: Water

Associated Lab Samples: 35324056001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
2,4,5-TP (Silvex)	ug/L	<0.16	0.20	0.16	07/22/17 00:29	
2,4-D	ug/L	< 0.081	0.10	0.081	07/22/17 00:29	
Dalapon	ug/L	< 0.89	1.0	0.89	07/22/17 00:29	
Dicamba	ug/L	< 0.067	0.10	0.067	07/22/17 00:29	
Dinoseb	ug/L	<0.16	0.20	0.16	07/22/17 00:29	
Pentachlorophenol	ug/L	< 0.030	0.040	0.030	07/22/17 00:29	
Picloram	ug/L	< 0.094	0.10	0.094	07/22/17 00:29	
2,4-DCAA (S)	%	88	70-130		07/22/17 00:29	

LABORATORY CONTROL SAMPLE:	2073156					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
2,4,5-TP (Silvex)	ug/L		1.0	103	70-130	
2,4-D	ug/L	.5	0.39	78	70-130	
alapon	ug/L	5	4.5	90	70-130	
icamba	ug/L	.5	0.66	132	70-130 L	_1
noseb	ug/L	1	1.1	114	70-130	
entachlorophenol	ug/L	.2	0.20	98	70-130	
cloram	ug/L	.5	0.50	99	70-130	
4-DCAA (S)	%			93	70-130	

MATRIX SPIKE & MATRIX S	PIKE DUPLICA	TE: 20734	78		2073479							
			MS	MSD								
	9:	2347613003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
2,4,5-TP (Silvex)	ug/L	ND ND	1	1	1.1	1.1	108	111	70-130	3	40	
2,4-D	ug/L	ND	.5	.5	0.42	0.47	84	94	70-130	11	40	
Dalapon	ug/L	ND	5	5	5.7	6.0	115	120	70-130	5	40	
Dicamba	ug/L	ND	.5	.5	0.58	0.63	117	126	70-130	7	40	
Dinoseb	ug/L	ND	1	1	1.1	1.1	105	113	70-130	7	40	
Pentachlorophenol	ug/L	ND	.2	.2	0.18	0.19	91	95	70-130	4	40	
Picloram	ug/L	ND	.5	.5	0.65	0.70	130	140	70-130	7	40	M1
2,4-DCAA (S)	%						98	99	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324056

Date: 08/15/2017 02:19 PM

MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	TE: 20734	30		2073481							
			MS	MSD								
	3	5323949005	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
2,4,5-TP (Silvex)	ug/L	<0.16	1	1	1.1	1.1	108	110	70-130	1	40	
2,4-D	ug/L	< 0.081	.5	.5	0.40	0.41	79	82	70-130	3	40	
Dalapon	ug/L	<0.89	5	5	4.7	4.8	94	95	70-130	1	40	
Dicamba	ug/L	< 0.067	.5	.5	0.51	0.63	103	127	70-130	21	40	
Dinoseb	ug/L	<0.16	1	1	1.1	1.1	110	111	70-130	1	40	
Pentachlorophenol	ug/L	< 0.030	.2	.2	0.19	0.19	96	97	70-130	1	40	
Picloram	ug/L	< 0.094	.5	.5	0.55	0.57	110	115	70-130	5	40	
2,4-DCAA (S)	%						95	93	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG,Inc 42001269

Pace Project No.: 35324056

Date: 08/15/2017 02:19 PM

QC Batch: 382937 Analysis Method: EPA 525.2

QC Batch Method: EPA 525.2 Analysis Description: 525.2 Base Neutral Extractables

Associated Lab Samples: 35324056001

METHOD BLANK: 2078153 Matrix: Water

Associated Lab Samples: 35324056001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Benzo(a)pyrene	ug/L	<0.013	0.10	0.013	07/26/17 11:53	
bis(2-Ethylhexyl)adipate	ug/L	<0.38	1.6	0.38	07/26/17 11:53	
bis(2-Ethylhexyl)phthalate	ug/L	< 0.50	2.0	0.50	07/26/17 11:53	
Metribuzin	ug/L	<0.15	0.30	0.15	07/26/17 11:53	
1,3-Dimethyl-2-nitrobenzene(S)	%	105	70-130		07/26/17 11:53	
Perylene-d12 (S)	%	84	70-130		07/26/17 11:53	
Triphenylphosphate (S)	%	83	70-130		07/26/17 11:53	

LABORATORY CONTROL SAMPLE:	2078154					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
- arameter						Quamiere
Benzo(a)pyrene	ug/L	.4	0.26	65	70-130 I	L2
bis(2-Ethylhexyl)adipate	ug/L	6.4	5.4	84	70-130	
bis(2-Ethylhexyl)phthalate	ug/L	8	6.8	85	70-130	
Metribuzin	ug/L	1.2	1.2	103	70-130	
1,3-Dimethyl-2-nitrobenzene(S)	%			106	70-130	
Perylene-d12 (S)	%			75	70-130	
Triphenylphosphate (S)	%			83	70-130	

MATRIX SPIKE & MATRIX SP	IKE DUPLICA	TE: 20784	76		2078477							
			MS	MSD								
	9:	2348121001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Benzo(a)pyrene	ug/L				0.092J	0.098J					40	MO
bis(2-Ethylhexyl)adipate	ug/L				10.9	10.3				6	40	
bis(2-Ethylhexyl)phthalate	ug/L				14.0	13.5				3	40	
Metribuzin	ug/L				2.2	< 0.30					40	M1
1,3-Dimethyl-2- nitrobenzene(S)	%						110	120	70-130			
Perylene-d12 (S)	%						64	62	70-130			S0,S8
Triphenylphosphate (S)	%						83	84	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



LBG,Inc 42001269 Project:

Pace Project No.: 35324056

QC Batch: 381974

QC Batch Method: EPA 548.1 Analysis Method:

EPA 548.1

Analysis Description:

548 GCS Endothall

MDL

79

4.3

Associated Lab Samples: 35324056001

METHOD BLANK: 2072291

Matrix: Water

Associated Lab Samples:

35324056001

Blank

Reporting

Parameter

Parameter

Units

ug/L

Units

ug/L

Result

<4.3

Limit

9.0

Analyzed

07/24/17 19:29

Qualifiers

Endothall

LABORATORY CONTROL SAMPLE: 2072292

Spike Conc.

50

LCS Result

LCS % Rec % Rec Limits

Qualifiers

Endothall

MS

2072348

39.6

80-120

Max

Endothall

35324386001 Parameter Units Result ug/L 4.3U

Units

ug/L

Spike Spike Conc. Conc. 50 50

MS MSD Result Result 45.0 44.4

MSD % Rec % Rec Limits RPD 80-120

RPD 30

Qual

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

2072358

Result

4.3U

2072347

2072359

MS

MS

MS

% Rec

90

MSD

89

% Rec

Max RPD RPD Qual

35324386002

Parameter

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

MS

Spike

Conc.

50

MSD

MSD

Spike Conc. 50

MSD Result Result 34.3 41.0

% Rec 69 % Rec 82 Limits 80-120

18 30 M0

Endothall

Date: 08/15/2017 02:19 PM

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REPORT OF LABORATORY ANALYSIS

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Project:

LBG,Inc 42001269

Pace Project No.:

35324056

QC Batch:

381794

QC Batch Method:

Diquat

Diquat

Diquat

Diquat

EPA 549.2

Analysis Method:

EPA 549.2

Analysis Description:

549 HPLC Paraquat Diquat

METHOD BLANK:

2071478

Matrix: Water

Associated Lab Samples:

Associated Lab Samples:

35324056001

35324056001

Blank

Reporting

Parameter

Units ug/L

Units

ug/L

35324366001

35324454001

Result

Result

0.30U

Units

ug/L

Units

ug/L

Result < 0.30

2

Limit

0.40

MDL

0.30

Analyzed

Qualifiers

LABORATORY CONTROL SAMPLE:

Parameter

Parameter

Parameter

2071479

Spike Conc.

MS

Spike

Conc.

MS

Spike

Conc.

2

LCS Result

LCS % Rec % Rec Limits

70-130

Qualifiers

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

2071882

2071883

MS

Result

MS

1.7

1.6

MS

% Rec

84

82

MSD % Rec

84

07/20/17 00:32

% Rec Max Limits

RPD RPD Qual 0 30

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

2071884

MSD

Conc.

MSD

Spike

Conc.

Spike

2

2071885 MSD

MSD

Result

1.7

MSD

% Rec

70-130

Max Limits

RPD RPD Qual 30 M1,R1

mg/L

0.00030U

2 2

Result Result 0.60 0.84 % Rec 30

MS

% Rec 42

70-130 35

Date: 08/15/2017 02:19 PM

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: LBG,Inc 42001269

Pace Project No.: 35324056

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

S8

Date: 08/15/2017 02:19 PM

PASI-O Pace Analytical Services - Ormond Beach

re-extraction and/or re-analysis)

ANALYTE QUALIFIERS

L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
L5	LCS recovery exceeded QC limits. Batch accepted based on matrix spike recovery within LCS limits.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
S0	Surrogate recovery outside laboratory control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

REPORT OF LABORATORY ANALYSIS

Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LBG,Inc 42001269

Pace Project No.: 35324056

Date: 08/15/2017 02:19 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35324056001	C-16	EPA 504.1	381399	EPA 504.1	381607
35324056001	C-16	EPA 505	32255	EPA 505	32334
35324056001	C-16	EPA 508.1	382070	EPA 508.1	382791
35324056001	C-16	EPA 515.3	382064	EPA 515.3	382572
35324056001	C-16	EPA 531.1	381535		
35324056001	C-16	EPA 547	382091		
35324056001	C-16	EPA 549.2	381794	EPA 549.2	382025
35324056001	C-16	EPA 525.2	382937	EPA 525.2	383335
35324056001	C-16	EPA 548.1	381974	EPA 548.1	382933

WO#:35324056 EnviroTest Laboratories, Inc. Newburgh, NY 12550 Phone (845) 562-0890 Fax (845) 562-0841

315 Fullerton Avenue

Custody Record

Laboratories Inc. EnviroTest 😂 .

Client Information (Sub Contract Lab)	45374055				Debra					2	driei Hacking No(s).	0(8)		420-9125.1		
Client Contact: Shipping/Receiving	_			dpaye	dbayer@envirotestlaboratories.com	otestla	borator	ies.con	-					Page: Page 1 of 1		
Company: Pace Analytical Ormond Beach								Analy	Analysis Requested	edne	sted			STL Job #: 420-123595-4	54	
Address:	Due Date Requested:	ted:			1		M						(a) (i	Preservation Codes:	n Codes:	
8 East Iower Circle,	TAT Requested (days):	lays):			T		10.7	9					1190	A - HCL B - NaOH		
Ormond Beach State, Zip:	(V)	Sto 1	Charle	5				Baunc						C - Zn Acetate D - Nitric Acid E - NaHSO4		
FL, 32174 Phone: 111-222-3333(Tel)	PO#:		0117	3				o ame						F - MeOH G - Amchlor H - Assorbic Acid	R - Na2S2SO3 S - H2SO4 Acid T - TSP Dodecabudgate	despyd
Email:	WO#:				(o)			IOAIIII					S	-		
Project Name: LBG, Inc.	Project #: 42001269				110 SO/				-		nixoi		ienletn	The second second	W - ph 4-5 Z - other (specify)	0
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Sample Identification Client ID (Lab ID)	Sample Date	Sample	Sample Type (C=comp, G=grab)	Matrix (w-water, S-solld, O-waste/oll, BT-TISSUE, A-AIL)	Field Filtered : MiSM mrome9	SUBCONTRA	SUBCONTRA	SUBCONTRA	AЯТИОЭВUS ВАЯТИОЭВUS	SUBCONTRA	затиозвиз		TedmuM IstoT		Special Instructions/Note:	į.
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C - 16 (420-123595-4)	7/13/17	9:15		Water	19930	×	×	×	×	×	×		13			
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Possible Hazard Identification		- monday	frainclaibra		Samı	le Dis	le Disposal (A l	A fee	may be	asse	assessed if sam	nples ar	e retai	tained longer to	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Noti-trazaru Peliverable Requested: I, III, III, V, Other (specify)		Tanon.	no formation of the control of the c		Spec	al Instr	Special Instructions/QC Requirements	ACC Re	quirem	ents:	6					
Empty Kit Relinquished by:		Date:			Time:						Method of Shipment:	nipment:				
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Semidario of	0000)	Collipairy	ř	Received by	. A					Date/Time:			Company	
(Binquished by:	Date/Time;		O	Сотрапу	ž	Received by:	.jv:					Date/Time:			Company	
Custody Seals Intact: Custody Seal No.:					Ö	oler Ter	Cooler Temperature(s) °C and Other Remarks:	(s) °C ar	d Other I	Remarks						
					1					١			١			



Document Name: Sample Condition Upon Receipt Form Document No.: F-FL-C-007 rev. 11

Dodument Revised: February 6, 2017 Issuing Authority: Pace Forida Quality Office

Sample Condition Upon Receipt Fo (SCUR)

Project#

Project Manager:

Client

Due Date: 07/28/17

CLIENT: EVNTES

PM: VEG

Date and Initials of person: Examining contents: Label:_

Ollent.			pH:	1111
Thermometer Used:	Date: > (14)	7 Time: \\		s: V
Cooler #1 Temp.°c (Visual) +0		`		
		, , , , , , , , , , , , , , , , , , , ,		on ice, cooling process has begun
Cooler #3 Temp.°C 1. (Visual) 40 . \	_(Correction Factor) \(\bigcup \)	C"		on ice, cooling process has begun
Cooler #4 Temp. *C(Visual)				on ice, cooling process has begun
				on ice, cooling process has begun
			☐ Samples	on ice, cooling process has begun
Cooler #6 Temp.°C(Visual)	(Correction Factor)	(Actual)	☐ Samples	in ice, cooling process has begun
Courier: Fed Ex UPS US	PS Client Cor	nmercial Pace	Other	
Shipping Method: ☐ First Overnight ☐ Priorit		Overnight	☐ Other_	
Billing: □Recipient □ Sender	☐ Third Party	☐ Unknown	□ Other	
	340/779630		17796	2608 5178
-/		act: Yes No	Ice: (Vet)	Blue None
Packing Material: Bubble Wrap Bubble E		er		
Samples shorted to lab (If Yes, complete)	Shorted Date:	Shorted	Time:	Qty:
	C	omments:		
Chain of Custody Present	ØYes □ No □N/A			
Chain of Custody Filled Out	✓Yes □ No □N/A			
Relinquished Signature & Sampler Name COC	DYes □ No □N/A			
Samples Arrived within Hold Time	⊠Ýes □ No □N/A			
Rush TAT requested on COC	□Yes ☑No □N/A			
Sufficient Volume	.⊠Ýes □ No □N/A			
Correct Containers Used	ØYes □ No □N/A			
Containers Intact	⊠Ýes □ No □N/A			
Sample Labels match COC (sample IDs & date/time of collection)	/			
All containers needing acid/base preservation have been	ØYes □ No □N/A	0.		
hecked. Il Containers needing preservation are found to be in	DYes □ No □N/A	Preservative:_	eservation Informati	on:
ompliance with EPA recommendation:	DYes □ No □N/A	Lot #/Trace #:_ Date:	Time:	
Exceptions: VOA, Coliform, TOC, O&G, C	arbamates	Initials:	11110,	
Headspace in VOA Vials? (>6mm):	□Yes □ No ☑N/A		4	
rip Blank Present:	□Yes □ No ☑Ń/A			
Client Notification/ Resolution:				
Person Contacted:	_	Date/Time:		
Comments/ Resolution (use back for additional co	nmments):			
okay to Run	007 2020	DM		
()	Pol	71.		-
Project Manager Review:			Date:	
			9,171	Page 21 of



Pace Analytical Services, Inc.

1700 Elm Street Minneapolis, MN 55414 Phone: 612.607.1700

Fax: 612.607.6444

Report Prepared for:

Bo Garcia PASI Florida 8 East Tower Circle Ormond Beach FL 32174

> **REPORT OF** LABORATORY ANALYSIS FOR 2,3,7,8-TCDD

Report Summary:

This report contains results of one drinking water sample analyzed to determine 2,3,7,8-TCDD content. This sample was analyzed according to Method 1613 by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

Report Prepared Date:

August 3, 2017

Report Information:

Pace Project #: 10396113

Sample Receipt Date: 07/18/2017

Client Project #: 35324056

Client Sub PO #: N/A **State Cert #: 11647**

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 Drinking Water Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Sarah Platzer, your Pace Project Manager.

This report has been reviewed by:

August 03, 2017

Sarah Platzer, Project Manager 612-607-6451 (612) 607-6444 (fax)

sarah.platzer@pacelabs.com



Report of Laboratory Analysis

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The results relate only to the samples included in this report.



Tel: 612-607-1700 Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Montana	CERT0092
Alabama	40770	Nebraska	NE-OS-18-06
Alaska	MN00064	Nevada	MN00064
Alaska	UST-078	New Jersey (NE	MN002
Arizona	AZ0014	New York (NEL	11647
Arkansas	88-0680	New hampshire	2081
CNMI Saipan	MP0003	North Carolina	27700
California	MN00064	North Carolina	530
Colorado	MN00064	North Dakota	R-036
Connecticut	PH-0256	Ohio	41244
EPA Region 8	8TMS-L	Ohio VAP	CL101
Florida (NELAP	E87605	Oklahoma	9507
Georgia (EDP)	959	Oregon (ELAP)	MN200001
Guam EPA	959	Oregon (OREL	MN300001
Hawaii	MN00064	Pennsylvania	68-00563
Idaho	MN00064	Puerto Rico	MN00064
Illinois	200011	South Carolina	74003001
Indiana	C-MN-01	Tennessee	TN02818
Iowa	368	Texas	T104704192
Kansas	E-10167	Utah (NELAP)	MN00064
Kentucky	90062	Virginia	460163
Louisiana	03086	Washington	C486
Louisiana	MN00064	West Virginia #	9952C
Maryland	322	West Virginia D	382
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-L
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

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Tel: 612-607-1700 Fax: 612- 607-6444

Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X =%D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

Re	Chain	Chain of Custody														Pace.	03A	Pace Analytical
eport	Workorde	Workorder: 35324056 Wor	'korder N	Workorder Name:LBG,Inc 42001269	ıc 4200°	1269			Own	er Recei	Owner Received Date:	7/14/2017		esults F	Results Requested Bv:	ed Bv:	www.pacalabs.co 7/28/2017	s.com 117
No1039	Bo Garcia Pace Analy 8 East Town Omond Be	ytical Ormond Beach rer Circle each, FL 32174		Pac Pac 170 Suit Minn	e Analyt 0 Elm St e 200 neapolis.	Pace Analytical Minnesota 1700 Elm Street SE Suite 200 Minneapolis, MN 55414	sota 14								-			
96113_161	Phone (386	6)672-5668		Pho	ine (612)	Phone (612)607-1700					E191 4G3							
3DW				The second secon	190	#1 62		pevieserdn				1987					VINO BOLL ON	> > > > > = = = = = = = = = = = = = = =
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	5		- A - A - A - A - A - A - A - A - A - A] 									
		Released By		Date/Time		Received By	\ \ \ \	1		Date/Time	ē			sinemis	Tents & *			
	7	Worker	17 MA	14117	(JO)	7		1	ACE.	718117	9.50							
	2)	J.		1													
	60										_							

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document This chain of custody is considered complete as is since this information is available in the owner laboratory.

Custody Seal Y or N

Cooler Temperature on Receipt 3 05°C

Samples Intact Y

Received on Ice Yor N

Pace Analytical*

Document Name:

Sample Condition Upon Receipt Form Document No.: F-MN-L-213-rev.20

Document Revised: 19Dec2016 Page 1 of 2

Issuing Authority: Pace Minnesota Quality Office

Sample Condition Client Name:		Project #	
Pace Domand	Beach	\	W0#:10396113
Courier: Fed Ex UPS [_]USPS [Client	
☐Commercial ☐Pace ☐SpeeDee [Other:		
Tracking Number:	564	_	10396113
Custody Seal on Cooler/Box Present?	Seals	intact?	Yes Optional: Proj. Due Date: Proj. Name:
Packing Material: Bubble Wrap Bubble Bags	☐None j	Other:	Temp Blank? ☐Yes No
Thermometer 151401163 Used: 151401164	Type of Ice	e: Wet	☐Blue ☐None ☐Samples on ice, cooling process has begun
Cooler Temp Read (°C): Cooler Temp Corr	ected (°C): 🖳	5	Biological Tissue Frozen? Yes No No
Temp should be above freezing to 6°C Correction Facto	r: Turag	Date	and Initials of Person Examining Contents: 7/18/17
USDA Regulated Soil (N/A, water sample) Did samples originate in a quarantine zone within the United St	ates: Al. AR. CA	. FL GA. ID TA	A. MS, Did samples originate from a foreign source (internationally,
NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)?	[□Yes □	No including Hawaii and Puerto Rico)? Yes No
If Yes to either question, fill out a Regu	llated Soil Che	cklist (F-MN-	Q-338) and include with SCUR/COC paperwork.
Chain of Custody Present?	X v 171		COMMENTS:
Chain of Custody Present: Chain of Custody Filled Out?	Yes 🗀	•	1.
Chain of Custody Relinquished?	Yes D		2.
Sampler Name and/or Signature on COC?	Yes 🗆		3.
Samples Arrived within Hold Time?	Yes □		4. 5.
Short Hold Time Analysis (<72 hr)?			6.
Rush Turn Around Time Requested?	☐Yes 🔀		7.
Sufficient Volume?	1 2 Yes □		8.
Correct Containers Used?	Yes □		9.
-Pace Containers Used?	Yes 🗆		j.
Containers Intact?	res 🔲		10.
Filtered Volume Received for Dissolved Tests?	Yes □		Note if sediment is visible in the dissolved container
Sample Labels Match COC?	Yes □r	-	12.
Includes Date/Time/ID/Analysis Matrix:	ال ١١٠٠		 -
All containers needing acid/base preservation have been			13.
checked? All containers needing preservation are found to be in	□Yes □1	No ASIN/A	Chlorine? Y N
compliance with EPA recommendation?	_	<u>.</u> .	
(HNO ₃ , H ₂ SO ₄ , <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC Oil and Grease,	∏Yes □N	No MIN/A	Initial when Lot # of added
DRO/8015 (water) and Dioxin.	Yes 🔯	ND N/A	completed: preservative:
Headspace in VOA Vials (>6mm)?	Yes 🔲	N/A	14.
Trip Blank Present?	□Yes □N	VO (XIV/A	15.
Trip Blank Custody Seals Present?	□Yes □1	No ENVA	
Pace Trip Blank Lot # (if purchased):			
CLIENT NOTIFICATION/RESOLUTION			Field Data Required? ☐Yes ☐ No
Person Contacted:		,	Date/Time:
Comments/Resolution:	·		
Project Manager Review; 2014	1		Date: 7/19/2017
	pliance samples	, a copy of this	Date: //19/2017 form will be sent to the North Carolina DEHNR Certification Office (i.e. out of

hold, incorrect preservative, out of temp, incorrect containers).



Drinking Water Analysis Results 2,3,7,8-TCDD -- USEPA Method 1613B

Tel: 612-607-1700 Fax: 612-607-6444

Sample ID......C-16

Client...... PASI Florida Lab Sample ID.... 35324056001-R Date Collected.....07/13/2017 Date Received.....07/18/2017 Date Extracted.....07/31/2017

	Sample C-16	Method Blank	Lab Spike	Lab Spike Dup
[2,3,7,8-TCDD]	ND	ND		
EDL	1.5 pg/L	1.8 pg/L		
2,3,7,8-TCDD Recovery			89%	82%
Spike Recovery Limit			73-146%	73-146%
RPD			7.	9%
IS Recovery	94%	97%	104%	98%
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	98%	94%	103%	96%
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename	F170801B_25	F170801B_23	F170801B_21	F170801B_22
Analysis Date	08/02/2017	08/02/2017	08/02/2017	08/02/2017
Analysis Time	11:03 SMT	09:37 SMT	08:12 SMT	08:54
Analyst Volume	0.950L	1.027L	1.010L	SMT 1.020L
Dilution	0.950L NA	NA	NA	NA
ICAL Date	NA 01/11/2017	NA 01/11/2017	NA 01/11/2017	NA 01/11/2017
CCAL Filename				F170801B 17
CCAL FIIEIIaille	F170801B_17	F170801B_17	F170801B_17	L1/0901D_1/

! = Outside the Control Limits

ND = Not Detected

EDL = Estimated Detection Limit

Limits = Control Limits from Method 1613 (10/94 Revision), Tables 6A and 7A

RPD = Relative Percent Difference of Lab Spike Recoveries

IS = Internal Standard $[2,3,7,8\text{-TCDD-}^{13}C_{12}]$ CS = Cleanup Standard $[2,3,7,8\text{-TCDD-}^{37}Cl_4]$

Project No.....10396113



ANALYTICAL REPORT

Job Number: 420-124221-1

SDG Number: Clovewood, LakAnn, Monroe, NY

Job Description: LBG, Inc.

For:

Leggette, Brashears & Graham, Inc. 4 Research Drive Shelton, CT 06464

Attention: Stacy Stieber

Debra Bayer

Debua 50

Customer Service Manager dbayer@envirotestlaboratories.com

08/24/2017

NYSDOH ELAP does not certify for all parameters. EnviroTest Laboratories does hold certification for all analytes where certification is offered by ELAP unless otherwise specified in the Certification Information section of this report. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval of the laboratory. EnviroTest Laboratories Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our laboratory. All questions regarding this report should be directed to the EnviroTest Customer Service Representative.

EnviroTest Laboratories, Inc. Certifications and Approvals: NYSDOH 10142, NJDEP NY015, CTDOPH PH-0554



METHOD SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-124221-1 SDG Number: Clovewood, LakAnn, Monroe, NY

Description	Lab Location	Method	Preparation Method
Matrix: Water			
ICP Metals by 200.7 Sample Filtration Total Metals Digestion for 200.7 200 Series Drinking Water Prep Determination Step	EnvTest EnvTest EnvTest EnvTest	EPA 200.7 Re	ev 4.4 FILTRATION EPA 200.7 EPA 200.7/200.8
ICPMS Metals by 200.8 200 Series Drinking Water Prep Determination Step Total Metals Digestion for 200.8	EnvTest EnvTest EnvTest	EPA 200.8 Re	ev.5.4 EPA 200.7/200.8 EPA 200.8
Mercury in Water by CVAA Digestion for CVAA Mercury in Waters	EnvTest EnvTest	EPA 245.1 Re	ev.3.0 EPA 245.1
Anions by Ion Chromatography	EnvTest	MCAWW 300	0.0
Anions by Ion Chromatography	EnvTest	EPA 300.0 Re	ev. 2.1
EPA 504.1 EDB	Pace	EPA 504.1	
EPA 505 Pesticide/PCB	Pace	EPA 505	
EPA 515 Chlorinated Acids	Pace	EPA 515	
Purgeable Organic Compounds in Water by GC/MS	EnvTest	EPA-DW 524	.2
EPA 525.2 Semivolatile Organics	Pace	EPA 525.2	
EPA 531.1 Carbamate Pesticides in Drinki	Pace	EPA 531.1	
EPA 900 Series GA/GB/RA226/RA228/Gamma	Pace	EPA 900	
Uranium	Radios	STL-STL EPA	A
Heterotropic Plate Count	EnvTest	IDEXX SIMPI	LATE
Odor, Threshold Test	EnvTest	SM20 SM 21	50B
Alkalinity, Titration Method	EnvTest	SM21 SM 23	20B-97,-11
Corrosivity LSI Calculation	EnvTest	SM20 SM 23	30B
Hardness by Calculation	EnvTest	SM20 SM 234	40B-97,-11
рН	EnvTest	SM19 SM 450	00 H+ B
Nitrite by Colormetric	EnvTest	SM20 SM 450	00 NO2 B
Total Coliform and Escherichia coli by Colilert - Presence/Absence	EnvTest	SMWW SM 9	223
Apparent Color	EnvTest	SM21 SM212	20B-01,11
Turbidity	EnvTest	SM21 SM213	30B-01,11
Total Dissolved Solids (Dried at 180 °C)	EnvTest	SM21 SM254	OC-97,11
Cyanide, Total: Colorimetric Method Cyanide: Distillation	EnvTest EnvTest	SM21 SM450	00 CN E-99 SM21 SM 4500 CN C
General Sub Contract Method	Pace	Subcontract	
General Sub Contract Method	Radios	Subcontract	

METHOD SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-124221-1

SDG Number: Clovewood, LakAnn, Monroe, NY

Description Lab Location Method Preparation Method

Lab References:

EnvTest = EnviroTest

Pace = Pace Analytical - Ormond Beach

Radios = Pace Analytical Services, Inc.

Method References:

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

IDEXX =

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM19 = "Standard Methods For The Examination Of Water And Wastewater", 19Th Edition, 1995."

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SM21 = "Standard Methods For The Examination Of Water And Wastewater", 21st Edition

SMWW = "Standard Methods for the Examination of Water and Wastewater"

STL-STL = Severn Trent Laboratories, St. Louis, Facility Standard Operating Procedure.

METHOD / ANALYST SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-124221-1

SDG Number: Clovewood, LakAnn, Monroe, NY

Method	Analyst	Analyst ID
EPA-DW 524.2	Andersen, Eric C	ECA
EPA 200.7 Rev 4.4	Sirico, Derek	DS
EPA 200.8 Rev.5.4	Sirico, Derek	DS
EPA 245.1 Rev.3.0	Sirico, Derek	DS
SM20 SM 2340B-97,-11	Sirico, Derek	DS
MCAWW 300.0	Luis, Carlos	CL
EPA 300.0 Rev. 2.1	Luis, Carlos	CL
IDEXX SIMPLATE	O'Driscoll, Kate	КО
SM20 SM 2150B	O'Driscoll, Kate	КО
SM21 SM 2320B-97,-11	Luis, Carlos	CL
SM20 SM 2330B	Cusack, Renee	RC
SM19 SM 4500 H+ B	O'Driscoll, Kate	КО
SM20 SM 4500 NO2 B	Molchon, Renee	RM
SMWW SM 9223	Grant, Ameya	AG
SM21 SM2120B-01,11	O'Driscoll, Kate	КО
SM21 SM2130B-01,11	O'Driscoll, Kate	КО
SM21 SM2540C-97,11	O'Driscoll, Kate	КО
SM21 SM4500 CN E-99	Molchon, Renee	RM

SAMPLE SUMMARY

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-124221-1

SDG Number: Clovewood, LakAnn, Monroe, NY

			Date/Time	Date/Time
Lab Sample ID	Client Sample ID	Client Matrix	Sampled	Received
420-124221-1	C-21	Drinking Water	07/27/2017 0830	07/27/2017 0945

Analytical Data

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-124221-1

Sdg Number: Clovewood, LakAnn, Monroe, NY

Client Sample ID: C-21

Lab Sample ID: 420-124221-1 Date Sampled: 07/27/2017 0830 07/27/2017 0945 Client Matrix: **Drinking Water** Date Received:

524.2 Purgeable Organic Compounds in Water by GC/MS

Method: 524.2 Analysis Batch: 420-112881 Instrument ID: HP

Preparation: Lab File ID: V072809.D N/A 5 mL Dilution: Initial Weight/Volume: 1.0

07/28/2017 1443 Date Analyzed: Final Weight/Volume: 5 mL

Date Prepared: N/A

Analyte	Result (ug/L) Qualifier	RL
1,1,1,2-Tetrachloroethane	<0.500	0.500
1,1,1-Trichloroethane	<0.500	0.500
1,1,2,2-Tetrachloroethane	<0.500	0.500
1,1,2-Trichloroethane	<0.500	0.500
1,1-Dichloroethane	<0.500	0.500
1,1-Dichloroethene	<0.500	0.500
1,1-Dichloropropene	<0.500	0.500
1,2,3-Trichlorobenzene	<0.500	0.500
1,2,3-Trichloropropane	<0.500	0.500
1,2,4-Trichlorobenzene	<0.500	0.500
1,2,4-Trimethylbenzene	<0.500	0.500
1,2-Dichloroethane	<0.500	0.500
1,2-Dichlorobenzene	<0.500	0.500
1,2-Dichloropropane	<0.500	0.500
1,3-Dichloropropane	<0.500	0.500
1,4-Dichlorobenzene	<0.500	0.500
2,2-Dichloropropane	<0.500	0.500
Benzene	<0.500	0.500
Bromobenzene	<0.500	0.500
Bromochloromethane	<0.500	0.500
Bromomethane	<0.500	0.500
n-Butylbenzene	<0.500	0.500
cis-1,2-Dichloroethene	<0.500	0.500
cis-1,3-Dichloropropene	<0.500	0.500
Carbon tetrachloride	<0.500	0.500
Chlorobenzene	<0.500	0.500
Chloroethane	<0.500	0.500
Chloromethane	<0.500	0.500
Dibromomethane	<0.500	0.500
Ethylbenzene	<0.500	0.500
Dichlorodifluoromethane	<0.500	0.500
Hexachlorobutadiene	<0.500	0.500
Isopropylbenzene	<0.500	0.500
p-Isopropyltoluene	<0.500	0.500
Methylene Chloride	<0.500	0.500
m-Xylene & p-Xylene	<1.00	1.00
Methyl tert-butyl ether	<0.500	0.500
o-Xylene	<0.500	0.500
Tetrachloroethene	<0.500	0.500
Toluene	<0.500	0.500
trans-1,2-Dichloroethene	<0.500	0.500
trans-1,3-Dichloropropene	<0.500	0.500
Trichloroethene	<0.500	0.500
tert-Butylbenzene	<0.500	0.500

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-124221-1

Sdg Number: Clovewood, LakAnn, Monroe, NY

Client Sample ID: C-21

Lab Sample ID: 420-124221-1 Date Sampled: 07/27/2017 0830 07/27/2017 0945 Client Matrix: **Drinking Water** Date Received:

524.2 Purgeable Organic Compounds in Water by GC/MS

Method: 524.2 Analysis Batch: 420-112881 Instrument ID: HP

Preparation: Lab File ID: V072809.D N/A Dilution: Initial Weight/Volume: 5 mL 1.0

07/28/2017 1443 Date Analyzed: Final Weight/Volume: 5 mL

Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL
Trichlorofluoromethane	<0.500		0.500
Vinyl chloride	<0.500		0.500
Xylenes, Total	<1.50		1.50
Styrene	<0.500		0.500
sec-Butylbenzene	<0.500		0.500
1,3,5-Trimethylbenzene	<0.500		0.500
N-Propylbenzene	<0.500		0.500
1,3-Dichlorobenzene	<0.500		0.500
2-Chlorotoluene	<0.500		0.500
4-Chlorotoluene	<0.500		0.500
Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene	95		71 - 120
Toluene-d8 (Surr)	95		79 - 121
1,2-Dichloroethane-d4 (Surr)	97		70 - 128

20.0

Job Number: 420-124221-1 Client: Leggette, Brashears & Graham, Inc.

Sdg Number: Clovewood, LakAnn, Monroe, NY

Client Sample ID: C-21

Date Prepared:

Zinc

Lab Sample ID: 420-124221-1 Date Sampled: 07/27/2017 0830 Client Matrix: **Drinking Water** Date Received: 07/27/2017 0945

200.7 Rev 4.4 ICP Metals by 200.7

Instrument ID: Thermo ICP Method: 200.7 Rev 4.4 Analysis Batch: 420-112958

Preparation: Prep Batch: 420-112921 N/A 200.7/200.8 Lab File ID: Dilution: Initial Weight/Volume: 50 mL 1.0

Date Analyzed: 08/01/2017 1516 Final Weight/Volume: 50 mL 08/01/2017 0916

Analyte Result (ug/L) Qualifier RL 7740 60.0 Iron g Manganese 1790 10.0 g Sodium 2340 200

200.7 Rev 4.4 ICP Metals by 200.7-Dissolved

Method: Analysis Batch: 420-113070 Instrument ID: Thermo ICP 200.7 Rev 4.4

Preparation: 200.7 Prep Batch: 420-113055 Lab File ID: N/A Dilution: 1.0 Initial Weight/Volume: 50 mL

96.1

Date Analyzed: 08/03/2017 2307 Final Weight/Volume: 50 mL 08/02/2017 1530 Date Prepared:

Analyte Result (ug/L) Qualifier RL 1090 60.0 Iron Manganese 1890 10.0

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-124221-1

Sdg Number: Clovewood, LakAnn, Monroe, NY

Client Sample ID: C-21

 Lab Sample ID:
 420-124221-1
 Date Sampled:
 07/27/2017
 0830

 Client Matrix:
 Drinking Water
 Date Received:
 07/27/2017
 0945

200.8 Rev.5.4 ICPMS Metals by 200.8

Method: 200.8 Rev.5.4 Analysis Batch: 420-112950 Instrument ID: Perkin Elmer ELAN

Preparation: 200.7/200.8 Prep Batch: 420-112921 Lab File ID: N/A

Dilution: 1.0 Initial Weight/Volume: 50 mL

Date Analyzed: 08/01/2017 1239 Final Weight/Volume: 50 mL

Date Prepared: 08/01/2017 0916

Analyte		Result (ug/L)	Qualifier	RL
Lead		<1.00		1.00
Arsenic		1.61		1.40
Beryllium		<0.300		0.300
Cadmium		<1.00		1.00
Chromium		<7.00		7.00
Nickel		0.949		0.500
Antimony		<0.400		0.400
Thallium		<0.300		0.300
Barium		22.7		2.00
Selenium		<2.00		2.00
Method:	200 8 Rev 5.4	Analysis Ratch: 420-112040	Instrument ID:	Perkin Flmer FI AN

Method: 200.8 Rev.5.4 Analysis Batch: 420-112949 Instrument ID: Perkin Elmer ELAN

Preparation: 200.8 Prep Batch: 420-112942 Lab File ID: N/A
Dilution: 1.0 Initial Weight/Volume: 50 mL

Dilution: 1.0 Initial Weight/Volume: 50 mL Date Analyzed: 08/01/2017 1459 Final Weight/Volume: 50 mL Date Prepared: 07/31/2017 1400

Analyte Result (ug/L) Qualifier RL

Silver <1.00 1.00

245.1 Rev.3.0 Mercury in Water by CVAA

Method: 245.1 Rev.3.0 Analysis Batch: 420-113021 Instrument ID: Perkin Elmer FIMS Preparation: 245.1 Prep Batch: 420-112999 Lab File ID: N/A

Dilution: 1.0 Initial Weight/Volume: 25 mL

Date Analyzed: 08/03/2017 1528 Final Weight/Volume: 25 mL Date Prepared: 08/03/2017 0945

Analyte Result (ug/L) Qualifier RL

Mercury <0.200 0.200

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-124221-1

Sdg Number: Clovewood, LakAnn, Monroe, NY

Client Sample ID: C-21

 Lab Sample ID:
 420-124221-1
 Date Sampled:
 07/27/2017
 0830

 Client Matrix:
 Drinking Water
 Date Received:
 07/27/2017
 0945

SM 2340B-97,-11 Hardness by Calculation

Method: SM 2340B-97,-11

Preparation: N/A
Dilution: 1.0

Date Analyzed: 08/01/2017 1516

Date Prepared: N/A

Analysis Batch: 420-112962 Instrument ID: None
Lab File ID: N/A

Initial Weight/Volume:

Final Weight/Volume:

Analyte Result (mg/L) Qualifier RL

Calcium hardness as calcium carbonate 12.0 1.25

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-124221-1

Sdg Number: Clovewood, LakAnn, Monroe, NY

Biology

Client Sample ID: C-21

Lab Sample ID: 420-124221-1 Client Matrix: Drinking Water Date Sampled: 07/27/2017 0830 Date Received: 07/27/2017 0945

AnalyteResultQualUnitsDilMethodColiform, TotalAbsentCFU/100mL1.0SM 9223

Anly Batch: 420-112815 Date Analyzed 07/27/2017 1358

Escherichia coli Absent CFU/100mL 1.0 SM 9223

Anly Batch: 420-112815 Date Analyzed 07/27/2017 1358

Analyte Result Qual Units RL Dil Method
Heterotrophic Plate Count 8.00 CFU/mL 2.00 1.0 SIMPLATE

Anly Batch: 420-112867 Date Analyzed 07/27/2017 1317

General Chemistry

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-124221-1

Sdg Number: Clovewood, LakAnn, Monroe, NY

General	Chemistry
---------	-----------

Client Sample ID: C-21

Lab Sample ID: 420-124221-1 Client Matrix: Drinking Water Date Sampled: 07/27/2017 0830

Date Received: 07/27/2017 0945

 Analyte
 Result
 Qual
 Units
 RL
 Dil
 Method

 Nitrate as N
 <0.250</td>
 mg/L
 0.250
 1.0
 300.0

Anly Batch: 420-112838 Date Analyzed 07/27/2017 1851

AnalyteResultQualUnitsDilMethodLangelier Index-2.95NONE1.0SM 2330B

Anly Batch: 420-113039 Date Analyzed 08/04/2017 0903

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-124221-1

Sdg Number: Clovewood, LakAnn, Monroe, NY

General Chemistry

Client Sample ID: C-21

 Lab Sample ID:
 420-124221-1
 Date Sampled:
 07/27/2017
 0830

 Client Matrix:
 Drinking Water
 Date Received:
 07/27/2017
 0945

Client Matrix:	Drinking Water			Date Received:	07/2	27/2017 0945
Analyte	Result	Qual	Units	RL	Dil	Method
	34.4	Quai		5.00	1.0	SM 2320B-97,-11
Alkalinity	34.4 Anly Batch: 420-112920	Date Analyze	mg/L d 07/31/2017 1700	5.00	1.0	SIVI 2320D-97,-11
	Ally Daton. 420-112920	Date Analyze	u 07/01/2011 11/00			
Total Dissolved Solids	34.0		mg/L	5.00	1.0	SM2540C-97,11
	Anly Batch: 420-112952	Date Analyze	=			•
	•	•				
Chloride	<1.50		mg/L	1.50	1.0	300.0 Rev. 2.1
	Anly Batch: 420-112838	Date Analyze	d 07/27/2017 1851			
0.45-4-	44.4			5.00	4.0	000 0 D 0 4
Sulfate	11.4	Data Analyza	mg/L d 07/27/2017 1851	5.00	1.0	300.0 Rev. 2.1
	Anly Batch: 420-112838	Date Analyze	u 07/27/2017 1031			
Fluoride	<0.500		mg/L	0.500	1.0	300.0 Rev. 2.1
	Anly Batch: 420-112838	Date Analyze	· ·			
	•	·				
Cyanide, Total	<0.00500		mg/L	0.00500	1.0	SM4500 CN E-99
	Anly Batch: 420-112916	Date Analyze				
	Prep Batch:	Date Prepare				
Apparent Color	75.0		Pt-Co	2.00	1.0	SM2120B-01,11
	Anly Batch: 420-112863	Date Analyze	d 07/27/2017 1626			
pH@color measuremen	nt 6.12		SU	2.00	1.0	SM2120B-01,11
prilegoolor medodremer	Anly Batch: 420-112863	Date Analyze		2.00	1.0	OWE 1200 01,11
	,	, , ,				
Turbidity	17.6		NTU	0.100	1.0	SM2130B-01,11
	Anly Batch: 420-112861	Date Analyze	d 07/27/2017 1611			
Odor	1.00	5.4.4	T.O.N.	1.00	1.0	SM 2150B
	Anly Batch: 420-112862	Date Analyze	d 07/27/2017 1625			
Temp @ Odor Measure	ment 60.0		Degrees C	5.00	1.0	SM 2150B
remp @ Odor wedoure	Anly Batch: 420-112862	Date Analyze	· ·	0.00	1.0	CIVI Z TOOD
	· ···· , - ······· · · · · · · · · · · · · · ·	,				
рН	6.12	Н	SU	0.200	1.0	SM 4500 H+ B
	Anly Batch: 420-112864	Date Analyze	d 07/27/2017 1538			
Temp @ pH Measureme			Degrees C	5.00	1.0	SM 4500 H+ B
	Anly Batch: 420-112864	Date Analyze	d 07/27/2017 1538			
Nitrite as N	<0.0100		mg/L	0.0100	1.0	SM 4500 NO2 B
	Anly Batch: 420-112809	Date Analyze		0.0100		3 1000 HOZ D
	, 2000 120 112000	Long 200	-			

DATA REPORTING QUALIFIERS

Client: Leggette, Brashears & Graham, Inc. Job Number:

Sdg Number: Clovewood, LakAnn, Monroe, NY

Lab Section	Qualifier	Description
Metals		
	g	Result fails applicable NYS drinking water standards
	-	
General Chemistry		
	Н	Sample was proposed or analyzed beyond the appointed holding
	П	Sample was prepped or analyzed beyond the specified holding time

Certification Information

Client: Leggette, Brashears & Graham, Inc. Job Number:

Sdg Number: Clovewood, LakAnn, Monroe, NY

The following analytes are Not Part of the ELAP scope of accreditation

Sulfur, Tungsten, Silicon, Bicarbonate Alkalinity, 7 Day BOD 5210C, 28 Day BOD, Soluble BOD, Carbon Dioxide, Carbonate Alkalinity, CBOD Soluble, Chlorine, Cyanide (WAD), Ferrous Iron, Ferric Iron, Total Nitrogen, Total Organic Nitrogen, Dissolved Oxygen, pH, Phenolphthalein Alkalinity, Solids (Fixed), Solids (Percent), Solids (Percent Moisture), Solids (Percent Volatile), Solids (Volatile Suspended), Temperature, TKN (Soluble), COD (Soluble), Total Inorganic Carbon, Volatile Acids as Acetic Acid, 2-Aminopyridine, 3-Picoline, 1-Methyl-2-pyrrilidinone, Aziridine, Dimethyl sulfoxide, 1-Chlorohexane, Iron Bacteria, Salmonella, & Sulfur Reducing Bacteria.

The following analytes are Not Part of ELAP Potable Water scope of accreditation

Cobalt (200.7, 200.8), Tin (200.7), Strontium (200.7), Gold (200.7), Platinum (200.7), Palladium (200.7), Titanium (200.7), Phosphorus (365.3), Nitrate-Nitrite (10-107-4-1C, 353.2), m-Xylene & p-Xylene (502.2, 524), Naphthalene (502.2), o-Xylene (502.2, 524), & Fecal Coliform (9222D).

The following analytes are Not Part of ELAP Solid and Hazardous Waste scope of accreditation

Ammonia (SM 4500NH3G), TKN (351.2), Phosphorus (365.3), 1,2-Dichloro-1,1,2-trifluoroethane (8260), & Chlorodifluoromethane (8260).

The following analytes are Not Part of ELAP Non Potable Water scope of accreditation

Dissolved Organic Carbon (5310C), Mecoprop (8151A), & MCPA (8151A).

Definitions and Glossary

Client: Leggette, Brashears & Graham, Inc. Job Number:

Sdg Number: Clovewood, LakAnn, Monroe, NY

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%R	Percent Recovery
DL, RA, RE	Indicates a Dilution, Reanalysis or Reextraction.
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit - an estimate of the minimum amount of a substance that an analytical process can reliably detect. A MDL is analyte- and matrix-specific and may be laboratory-dependent.
ND	Not detected at the reporting limit (or MDL if shown).
QC	Quality Control
RL	Reporting Limit - the minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.
RPD	Relative Percent Difference - a measure of the relative difference between two points

EnviroTest	
Laboratories,	Inc

Enviro	Tost		CHA	λIN	C)	CU	S	O	UY									REPORT# (Lab Use Only)
Labor	atories	s, Inc.	Lab Name Address & Phone				borato Avenu		wburg	h, Ne	w Yor	k 125	50 848	5-562-	0890					
PROJECT REFERENCE	ovewood	PROJECT NO.	PROJECT LOCATION	T	MATR TYPE	×					REQ	UIRED	ANAL	YSES					PAGE 1 of	1
NVIROTEST PROJECT Del		P.O. NUMBER	Morro	П			MPA C/G kit	Oml Vials HCI	Sodium Thio.	ım Thio.	Na2SO3	ric Acid	o(liquid)	Liter Plastic	ım Hyd.	c Sterile	ic Nitric	Unpres		TURNAROUND TIME
CLIENT (SITE) PM	3G, Inc.	203-929-8555	CLIENT FAX	YCATE	D (Drinking Water) or W (Waste Water) Indicate		MPA	40ml V	ml Sodiu	Amber Sodium Thio.	Liter Amber HCI/Na2SO3	250ml Plastic Nitric Acid	40ml Mon/Sod.Thio(liquid)	Lite	250ml Plastic Sodium Hyd	125ml Plastic Sterile	Liter Plastic Nitric	40ml Vials Unpres	NORMAL	
CLIENT NAME Star	cy Stieber			(G) INE	ste Wa				4	Amt	er Am	I I I	Mon		i Plas	125	-	4	QUICK	
CLIENT ADDRESS		elton, CT 06484	· · · · · · · · · · · · · · · · · · ·	OR GRAB) or W (W	SOLID				250ml	Ť	25(40ml		250m				VERBAL	
	IG THIS WORK (If applicab			SITE (C)	ing Wate	OR SEMI: Specify													#OF COOLERS	
SAMPL DATE	TIME	SAMPLE IDENTIFICA	TION	COMPC	D (Drink	SOLIDO			1	NUMBE	R OF	CONT	AINER	S SUBI	MITTE	D .				REMARKS
7.27.11	0830	C-21			D		1	3	2	1	2	1	2	34	1	2	5	2	Table 8B (Sb,A	s,Ba,Be,Cd,Cr,Cn,Hg,Ni
.,				П			ļ							35	1-17				Se,Ti,F)	
				\sqcap										1*-4					Table 8C (NO3,	NO2)
				Ħ			2-Lite	r Ambe	er Unpre	es.									Table 8D (CI,Fe	,Mn,Ag,Na,SO4,Zn,Odor,Color)
				\prod			1-250	ml Ami	ber Unp	ores.									524.2 (POC,MT	BE,Vinyl Chloride)
				П	П		3-250	ml Plas	stic Unp	ores. (n	o air)								SOCs (504,508	,515,525,531,547,548,549,Dioxin)
				П	П		2-40m	ni Ambe	er Sodi	um Thi	D.								Additional Test	ts (Total coliform
		(1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.		IT	П		1-500	ml Aml	ber Soc	dium Th	io.				·				thru Zinc)	
				П	П		1-Lite	r Ambe	er Plasti	ic Sodi	ım Thi	o.&H29	SO4						Radio(Gross A	lpha/Beta,Radium-226/228,Uranium)
				П	П		2-Lite	r Ambe	er Sodiu	ım Thio).								Radon	
				П	П														Dissolved Fe, I	Mn
				П																
				П					†											
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RELINQUISHED BY	(SIGNATURE)	COMPANY	DATE	TIME			RECE	IVED	BY: (SI	GNATI	JRE)				C	COMP	ANY		DATE	TIME
SUBCONTAC	T: PACE-SOC	s, Radio, Radon; ASI-Mi	PA/Crypto/Glard	lla			ı													The second secon
RECEIVED FOR LA		DATE TIME			ir Ten	1p: -0/-	LABO	RATO	RY RE	MARK	3:	ICE_	pl	1	CL2_		Revelv	ed by		

420-124221-A-1

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-124221-1

SDG Number: Clovewood, LakAnn, Monroe, NY

Login Number: 124221

Question	T/F/NA	Comment
Samples were collected by ETL employee as per SOP-SAM-1	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is recorded.	True	2.5 C
Cooler Temp. is within method specified range.(0-6 C PW, 0-8 C NPW, or BAC <10 C	True	
If false, was sample received on ice within 6 hours of collection.	NA	
Based on above criteria cooler temperature is acceptable.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	False	pH
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

(724)850-5600



July 31, 2017

Ms. Debra Bayer EnviroTest Laboratories, Inc. 315 Fullerton Avenue Newburgh, NY 12550

RE: Project: LBG, Inc.

Pace Project No.: 30225535

Dear Ms. Bayer:

Enclosed are the analytical results for sample(s) received by the laboratory on July 28, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins jacquelyn.collins@pacelabs.com (724)850-5612

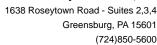
Project Manager

Suguely Cellins

Enclosures

cc: Janine Rader, EnviroTest Laboratories, Inc.







CERTIFICATIONS

Project: LBG, Inc.
Pace Project No.: 30225535

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683 Georgia Certification #: C040

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification Missouri Certification #: 235 Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457

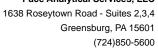
Rhode Island Certification #: 65-00282 South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

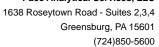




SAMPLE SUMMARY

Project: LBG, Inc. Pace Project No.: 30225535

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30225535001	C-21 (420-124221-1)	Drinking Water	07/27/17 08:30	07/28/17 10:00

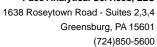




SAMPLE ANALYTE COUNT

Project: LBG, Inc. Pace Project No.: 30225535

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30225535001	C-21 (420-124221-1)	SM7500RnB-07	NEG	1





ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: LBG, Inc.
Pace Project No.: 30225535

Sample: C-21 (420-124221-1) Lab ID: 30225535001 Collected: 07/27/17 08:30 Received: 07/28/17 10:00 Matrix: Drinking Water

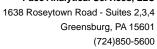
PWS: Site ID: Sample Type:

Comments: • Sample collection times were not present on the sample containers.

 Parameters
 Method
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 CAS No.
 Qual

 Radon
 SM7500RnB-07
 55.4 ± 29.3 (46.8)
 pCi/L
 07/28/17 21:50
 10043-92-2

C:NA T:NA





QUALITY CONTROL - RADIOCHEMISTRY

Project: LBG, Inc.
Pace Project No.: 30225535

QC Batch: 266626

QC Batch Method: SM7500RnB-07

Analysis Description: 7500Rn B Radon

SM7500RnB-07

Associated Lab Samples: 30225535001

METHOD BLANK: 1312837 Matrix: Water

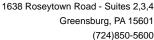
Associated Lab Samples: 30225535001

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radon
 -21.0 ± 19.6 (35.3) C:NA T:NA
 pCi/L
 07/28/17 17:37

Analysis Method:

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





QUALIFIERS

Project: LBG, Inc.
Pace Project No.: 30225535

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Date: 07/31/2017 10:27 AM

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

EnviroTest Laboratories, Inc. 315 Fullerton Avenue Newburgh, NY 12550 Phone (845) 562-0890 Fax (845) 562-0841

Envirolest Laboratories, Inc.				L	
Newburgh, NY 12550 Phone (845) 562-0890 Fax (845) 562-0841		Chain of Custody Record	ecord	Enviroiest Laboratori	100
Client Information (Sub Contract Lab)	Sampler.	Lab PM: Bayer, Debra	Carrier Tracking No(s):); COC No: 420-9161.1	
Client Contact: Shipping/Receiving	Phone:	E-Mail: dbayer@envirotestlaboratories.com	es.com	Page: Page 1 of 1	
Company: Pace Analytical Services, Inc.			Analysis Reguested	STL Job #: 420-124221-1	444
Address: 1638 Roseytown Rd, Suites 2,3,4, ,	Due Date Requested: 840/2017 Stondar	*		Preservation Codes	des:
čity: Greensburg	TAT Requested (days):			A-HCL B-NaOH C-77 Acette	M - Hexane N - None
State, Ztp: PA, 15601	****	?/\$		D - Nitric Acid E - NaHSO4	0 - ASNAOZ P - Na2O4S Q - Na2SO3
Phone:	#O#	u •		F - MeOH G - Amchlor	R - Na2S2SO3 S - H2SO4
Email:	WO#	(0)		promoto promoto y	T - TSP Dodecahydrate U - Acetone
Project Name: LBG, Inc.	Project #. 42001269	A 10 a enUta			W - ph 4-5 Z - other (specify)
Site:	#MOSS	ay) de joi (i		inos) Other	
	Sample	Sample Matrix Campur Type (wewater, Cacomp, Caroomp, Caro		o sedmini lis	
Sample Identification Client ID (Lab ID)	1	STUTISSUO, ArrAir) III. Q. J.			Special Instructions/Note:
C-24 (420-12424 4)					
(- 77471-074)	117711 8:30	water X X		S	Š
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	Annual National Control of the Contr				
		302255.5			
aut	Poison B Unknown Radiological		Sample Disposal (Afee may be assessed it samples are retained longer than 1 month)	ss are retained longer than :	(month)
, III, IV, Other (specify)		Specie	2C Requirements:	O LOAGON,	MOTORS
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:	lent:	
Reinquished by T Mag	Date/Time: $7/22//7$ // $\%$	Company Received by	Date	Date/Time:	Company
Reinquished by:	Date/Time:	Company Received by: '	Date		Company
Relinquished by:	Date/Time:	Company Received by:	Date	Date/Time:	Company
Custody Seals Intact: Custody Seal No.:		Cooler Temperature(Cooler Temperature(s) °C and Other Remarks:		

Sample Condition Upon Receipt Pittsburgh par s Face Analytical Project# Client Name: EnviroTest Courier: Fed Ex UPS USPS Client Commercial Pace Other Tracking # 779747694434 Seals Intact: yes no Type of Ice (Wet) Blue None

Observed Temp Z. Co °C Correction Factor: O.O °C Final Temp: Z. Co Thermometer Used Cooler Temperature Date and Initials of person examining contents: 24 128 13 Temp should be above freezing to 6°C No N/A Yes Comments: Chain of Custody Present: 2. Chain of Custody Filled Out: 3, Chain of Custody Relinquished: ~ Sampler Name & Signature on COC: time on Samples Sample Labels match COC: Matrix:_ -Includes date/lime/ID Samples Arrived within Hold Time: Short Hold Time Analysis (<72hr remaining): Rush Turn Around Time Requested: Sufficient Volume: 10. Correct Containers Used: -Pace Containers Used: 11. Containers Intact: 12. Orthophosphate field filtered 13. Organic Samples checked for dechlorination: 14. Fillered volume received for Dissolved tests All containers have been checked for preservation, 15. All containers needing preservation are found to be in compliance with EPA recommendation, Initial when 34 Dale/(ime of preservation completed exceptions: VOA, coliform, TOC, O&G, Phenolics Lot # of added preservative 16. Headspace in VOA Vials (>6mm): 17. Trip Blank Present: Trip Blank Custody Seals Present Initial When Rad Aqueous Samples Screened > 0,5 mrem/hr Client Notification/ Resolution: Contacted By: Person Contacted: Comments/ Resolution:

 \square A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. put of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.





August 10, 2017

Ron Bayer EnviroTest Laboratories Inc. 315 Fullerton Avenue Newburgh, NY 12550

RE: Project: LBG, Inc.

Pace Project No.: 35326821

Dear Ron Bayer:

Enclosed are the analytical results for sample(s) received by the laboratory on July 28, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Bo Garcia bo.garcia@pacelabs.com (386)672-5668 Project Manager

Enclosures

cc: Debra Bayer, EnviroTest Laboratories Inc. Renee Cusack, EnviroTest Laboratories Inc. Laura Marciano, EnviroTest Laboratories Inc. Janine Rader, EnviroTest Laboratories Inc. Meredith Ruthven, EnviroTest Laboratories Inc.



(386)672-5668



CERTIFICATIONS

Project: LBG, Inc. Pace Project No.: 35326821

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683 Georgia Certification #: C040

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14 Nevada Certification #: PA014572015-1 New Hampshire/TNI Certification #: 2976 New Jersey/TNI Certification #: PA 051 New Mexico Certification #: PA01457

New York/TNI Certification #: 10888 North Carolina Certification #: 42706 North Dakota Certification #: R-190 Oregon/TNI Certification #: PA200002 Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8 Utah/TNI Certification #: PA014572015-5 USDA Soil Permit #: P330-14-00213 Vermont Dept. of Health: ID# VT-0282 Virgin Island/PADEP Certification Virginia/VELAP Certification #: 460198 Washington Certification #: C868 West Virginia DEP Certification #: 143 West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174

Alabama Certification #: 41320 Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

Florida Certification #: E83079 Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Louisiana Certification #: FL NELAC Reciprocity Louisiana Environmental Certificate #: 05007

Maryland Certification: #346

Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236 Montana Certification #: Cert 0074 Nebraska Certification: NE-OS-28-14 Nevada Certification: FL NELAC Reciprocity

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710 Oklahoma Certification #: D9947 Pennsylvania Certification #: 68-00547 Puerto Rico Certification #: FL01264 South Carolina Certification: #96042001 Tennessee Certification #: TN02974 Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity Virginia Environmental Certification #: 460165

Wyoming Certification: FL NELAC Reciprocity

West Virginia Certification #: 9962C Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158

Pennsylvania Certification #: 68-00350 Connecticut Certification #: PH-0435

Maryland Certification #: 208





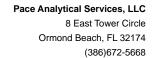
Ormond Beach, FL 32174 (386)672-5668

CERTIFICATIONS

Project: LBG, Inc.
Pace Project No.: 35326821

Long Island Certification IDs

Rhode Island Certification #: LAO00340 Massachusetts Certification #: M-NY026 New Hampshire Certification #: 2987





SAMPLE SUMMARY

Project: LBG, Inc.
Pace Project No.: 35326821

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35326821001	C-21	Drinking Water	07/27/17 08:30	07/28/17 10:20



SAMPLE ANALYTE COUNT

Project: LBG, Inc.
Pace Project No.: 35326821

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35326821001	C-21	EPA 504.1	BP1	2	PASI-O
		EPA 505	MMR	15	
		EPA 508.1	NS1	18	PASI-O
		EPA 515.3	LJM	8	PASI-O
		EPA 531.1	NMB	9	PASI-O
		EPA 547	NMB	1	PASI-O
		EPA 549.2	NMB	1	PASI-O
		EPA 525.2	NS1	7	PASI-O
		EPA 548.1	JDT	1	PASI-O
		EPA 900.0	NEG	2	PASI-PA
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		ASTM D5174-97	RMK	1	PASI-PA



ANALYTICAL RESULTS

Project: LBG, Inc.
Pace Project No.: 35326821

Date: 08/10/2017 04:37 PM

Sample: C-21	Lab ID:	35326821001	Collected	d: 07/27/17	08:30	Received: 07/	28/17 10:20 M	atrix: Drinking \	Water
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qua
504.1 GCS EDB and DBCP	Analytical	Method: EPA 5	04.1 Prepa	ration Meth	od: EP/	A 504.1			
1,2-Dibromo-3-chloropropane	<0.0060	ug/L	0.019	0.0060	1	08/02/17 14:30	08/02/17 22:55	96-12-8	
1,2-Dibromoethane (EDB)	<0.0070	ug/L	0.0094	0.0070	1	08/02/17 14:30	08/02/17 22:55	106-93-4	
505 GCS Pesticides/PCBs	Analytical	Method: EPA 5	05 Prepara	tion Metho	d: EPA (505			
Alachlor	<0.20	ug/L	0.20	0.20	1	08/03/17 12:51	08/03/17 16:39	15972-60-8	
Aldrin	<0.025	ug/L	0.025	0.025	1	08/03/17 12:51	08/03/17 16:39	309-00-2	
gamma-BHC (Lindane)	<0.020	ug/L	0.020	0.020	1	08/03/17 12:51	08/03/17 16:39	58-89-9	
Chlordane (Technical)	<0.20	ug/L	0.20	0.20	1	08/03/17 12:51	08/03/17 16:39	57-74-9	
Dieldrin	<0.050	ug/L	0.050	0.050	1	08/03/17 12:51	08/03/17 16:39	60-57-1	
Endrin	<0.010	ug/L	0.010	0.010	1	08/03/17 12:51	08/03/17 16:39	72-20-8	
Heptachlor	<0.025	ug/L	0.025	0.025	1	08/03/17 12:51	08/03/17 16:39	76-44-8	
Heptachlor epoxide	<0.020	ug/L	0.020	0.020	1	08/03/17 12:51	08/03/17 16:39	1024-57-3	
Hexachlorobenzene	<0.10	ug/L	0.10	0.10	1	08/03/17 12:51	08/03/17 16:39	118-74-1	
Hexachlorocyclopentadiene	<0.10	ug/L	0.10	0.10	1	08/03/17 12:51	08/03/17 16:39	77-47-4	
Methoxychlor	<0.10	ug/L	0.10	0.10	1	08/03/17 12:51	08/03/17 16:39	72-43-5	
PCB Screen	<0.40	ug/L	0.40	0.40	1	08/03/17 12:51	08/03/17 16:39		
Toxaphene	<1.0	ug/L	1.0	1.0	1	08/03/17 12:51	08/03/17 16:39	8001-35-2	
Surrogates									
Tetrachloro-m-xylene (S)	98	%.	30-150		1	08/03/17 12:51	08/03/17 16:39		
Decachlorobiphenyl (S)	67	%.	30-150		1	08/03/17 12:51	08/03/17 16:39	2051-24-3	
508.1 GCS Pesticides	Analytical	Method: EPA 5	08.1 Prepa	ration Meth	od: EPA	A 508.1			
Alachlor	<0.037	ug/L	0.21	0.037	1	08/03/17 17:00	08/06/17 02:18	15972-60-8	
Atrazine	< 0.066	ug/L	0.10	0.066	1	08/03/17 17:00	08/06/17 02:18	1912-24-9	
gamma-BHC (Lindane)	< 0.0031	ug/L	0.021	0.0031	1	08/03/17 17:00	08/06/17 02:18	58-89-9	
Butachlor	<0.028	ug/L	0.10	0.028	1	08/03/17 17:00	08/06/17 02:18	23184-66-9	
Chlordane (Technical)	< 0.049	ug/L	0.21	0.049	1	08/03/17 17:00	08/06/17 02:18	57-74-9	
Dieldrin	<0.020	ug/L	0.10	0.020	1	08/03/17 17:00	08/06/17 02:18	60-57-1	
Endrin	< 0.0073	ug/L	0.010	0.0073	1	08/03/17 17:00	08/06/17 02:18	72-20-8	
Heptachlor	<0.013	ug/L	0.042	0.013	1	08/03/17 17:00	08/06/17 02:18	76-44-8	
Heptachlor epoxide	< 0.0031	ug/L	0.021	0.0031	1	08/03/17 17:00	08/06/17 02:18	1024-57-3	
Hexachlorobenzene	<0.020	ug/L	0.10	0.020	1	08/03/17 17:00	08/06/17 02:18	118-74-1	
Hexachlorocyclopentadiene	< 0.034	ug/L	0.10	0.034	1	08/03/17 17:00	08/06/17 02:18	77-47-4	
Methoxychlor	< 0.053	ug/L	0.10	0.053	1	08/03/17 17:00	08/06/17 02:18	72-43-5	
Metolachlor	< 0.049	ug/L	0.10	0.049	1	08/03/17 17:00	08/06/17 02:18	51218-45-2	
PCB, Total	<0.084	ug/L	0.10	0.084	1	08/03/17 17:00	08/06/17 02:18	1336-36-3	
Propachlor	<0.031	ug/L	0.10	0.031	1	08/03/17 17:00	08/06/17 02:18	1918-16-7	
Simazine	< 0.072	ug/L	0.073	0.072	1	08/03/17 17:00	08/06/17 02:18	122-34-9	
Toxaphene	<0.64	ug/L	1.0	0.64	1	08/03/17 17:00	08/06/17 02:18	8001-35-2	
Surrogates		-							
Decachlorobiphenyl (S)	106	%	70-130		1	08/03/17 17:00	08/06/17 02:18	2051-24-3	
515.3 Chlorinated Herbicides	Analytical	Method: EPA 5	15.3 Prepa	ration Meth	od: EPA	A 515.3			
2,4-D	<0.081	ug/L	0.10	0.081	1	08/01/17 09:25	08/04/17 18:26	94-75-7	
Dalapon	<0.89	ug/L	1.0	0.89	1		08/04/17 18:26	75-99-0	
2 4.4 5									



ANALYTICAL RESULTS

Project: LBG, Inc.
Pace Project No.: 35326821

Date: 08/10/2017 04:37 PM

Sample: C-21	Lab ID:	35326821001	Collected:	07/27/17	08:30	Received: 07/	28/17 10:20 M	atrix: Drinking	Water
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
515.3 Chlorinated Herbicides	Analytical	Method: EPA 5	15.3 Prepara	ation Meth	od: EP/	A 515.3			
Dinoseb	<0.16	ug/L	0.20	0.16	1	08/01/17 09:25	08/04/17 18:26	88-85-7	
Pentachlorophenol	<0.030	ug/L	0.040	0.030	1	08/01/17 09:25	08/04/17 18:26	87-86-5	
Picloram	<0.094	ug/L	0.10	0.094	1	08/01/17 09:25	08/04/17 18:26	1918-02-1	
2,4,5-TP (Silvex) Surrogates	<0.16	ug/L	0.20	0.16	1	08/01/17 09:25	08/04/17 18:26	93-72-1	
2,4-DCAA (S)	93	%	70-130		1	08/01/17 09:25	08/04/17 18:26	19719-28-9	
531.1 HPLC Carbamates	Analytical	Method: EPA 5	31.1						
Aldicarb	<0.64	ug/L	2.0	0.64	1		07/29/17 03:50	116-06-3	P4
Aldicarb sulfone	<0.37	ug/L	2.0	0.37	1		07/29/17 03:50	1646-88-4	P4
Aldicarb sulfoxide	<0.59	ug/L	2.0	0.59	1		07/29/17 03:50	1646-87-3	P4
Carbofuran	<0.32	ug/L	2.0	0.32	1		07/29/17 03:50	1563-66-2	P4
3-Hydroxycarbofuran	<0.45	ug/L	2.0	0.45	1		07/29/17 03:50	16655-82-6	P4
Methomyl	<0.57	ug/L	2.0	0.57	1		07/29/17 03:50	16752-77-5	
Oxamyl	<0.55	ug/L	2.0	0.55	1		07/29/17 03:50	23135-22-0	P4
Carbaryl	<0.27	ug/L	2.0	0.27	1		07/29/17 03:50	63-25-2	P4
Surrogates BDMC (S)	114	%	80-120		1		07/29/17 03:50		P4
547 HPLC Glyphosate	Analytical	Method: EPA 5	47						
Glyphosate	<4.2	ug/L	6.0	4.2	1		07/29/17 08:34		
549.2 HPLC Paraquat Diquat	Analytical	Method: EPA 5	49.2 Prepara	ation Meth	od: EP/	A 549.2			
Diquat	<0.30	ug/L	0.40	0.30	1	08/02/17 21:30	08/03/17 08:12	85-00-7	
525.2 Base Neutral Extractable	Analytical	Method: EPA 5	25.2 Prepara	ation Meth	od: EP/	A 525.2			
Benzo(a)pyrene	<0.013	ug/L	0.099	0.013	1	08/02/17 21:00	08/03/17 18:56	50-32-8	
bis(2-Ethylhexyl)adipate	<0.38	ug/L	1.6	0.38	1	08/02/17 21:00	08/03/17 18:56	103-23-1	
bis(2-Ethylhexyl)phthalate	<0.49	ug/L	2.0	0.49	1	08/02/17 21:00	08/03/17 18:56	117-81-7	
Metribuzin Surrogates	<0.15	ug/L	0.30	0.15	1	08/02/17 21:00	08/03/17 18:56	21087-64-9	
1,3-Dimethyl-2-nitrobenzene(S)	100	%	70-130		1	08/02/17 21:00	08/03/17 18:56	81209	
Perylene-d12 (S)	98	%	70-130		1	08/02/17 21:00	08/03/17 18:56		
Triphenylphosphate (S)	117	%	70-130		1		08/03/17 18:56		
548.1 GCS Endothall	Analytical	Method: EPA 5	48.1 Prepara	ation Meth	od: EP/	A 548.1			
Endothall	<4.3	ug/L	9.0	4.3	1	08/02/17 00:20	08/08/17 07:03		
		•							



Project: LBG, Inc. Pace Project No.: 35326821

Date: 08/10/2017 04:37 PM

QC Batch: 384072 Analysis Method: EPA 531.1

QC Batch Method: EPA 531.1 Analysis Description: 531.1 HPLC Carbamate

Associated Lab Samples: 35326821001

METHOD BLANK: 2085431 Matrix: Water

Associated Lab Samples: 35326821001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
3-Hydroxycarbofuran	ug/L	<0.45	2.0	0.45	07/29/17 00:00	
Aldicarb	ug/L	< 0.64	2.0	0.64	07/29/17 00:00	
Aldicarb sulfone	ug/L	< 0.37	2.0	0.37	07/29/17 00:00	
Aldicarb sulfoxide	ug/L	< 0.59	2.0	0.59	07/29/17 00:00	
Carbaryl	ug/L	<0.27	2.0	0.27	07/29/17 00:00	
Carbofuran	ug/L	< 0.32	2.0	0.32	07/29/17 00:00	
Methomyl	ug/L	<0.57	2.0	0.57	07/29/17 00:00	
Oxamyl	ug/L	< 0.55	2.0	0.55	07/29/17 00:00	
BDMC (S)	%	114	80-120		07/29/17 00:00	

LABORATORY CONTROL SAMPLE:	2085432					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
3-Hydroxycarbofuran	ug/L	10	10.8	108	80-120	
Aldicarb	ug/L	10	11.1	111	80-120	
Aldicarb sulfone	ug/L	10	11.0	110	80-120	
Aldicarb sulfoxide	ug/L	10	9.4	94	80-120	
Carbaryl	ug/L	10	10.2	102	80-120	
Carbofuran	ug/L	10	11.1	111	80-120	
Methomyl	ug/L	10	10.4	104	80-120	
Oxamyl	ug/L	10	10.5	105	80-120	
BDMC (S)	%			104	80-120	

MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	TE: 20854	33		2085434							
			MS	MSD								
	5	0176222002	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
3-Hydroxycarbofuran	ug/L	ND	10	10	10.5	11.6	105	116	80-120	10	20	
Aldicarb	ug/L	ND	10	10	11.1	11.8	111	118	80-120	6	20	
Aldicarb sulfone	ug/L	ND	10	10	11.0	11.8	110	118	80-120	7	20	
Aldicarb sulfoxide	ug/L	ND	10	10	9.4	9.9	94	99	80-120	6	20	
Carbaryl	ug/L	ND	10	10	10.2	11.0	102	110	80-120	7	20	
Carbofuran	ug/L	ND	10	10	10.7	11.8	107	118	80-120	9	20	
Methomyl	ug/L	ND	10	10	10.3	11.0	103	110	80-120	6	20	
Oxamyl	ug/L	ND	10	10	10.6	10.8	106	108	80-120	2	20	
BDMC (S)	%						109	112	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG, Inc. Pace Project No.: 35326821

QC Batch: 384078

QC Batch Method: **EPA 547** Analysis Method:

EPA 547

Analysis Description:

547 HPLC Glyphosate

Associated Lab Samples: 35326821001

2085508 METHOD BLANK:

Matrix: Water

Associated Lab Samples:

Glyphosate

Glyphosate

35326821001

Blank

Reporting

Parameter Units ug/L

Units

ug/L

Units

ug/L

Result <4.2 Limit MDL 6.0

Analyzed 07/29/17 04:09 Qualifiers

LABORATORY CONTROL SAMPLE:

Parameter

Parameter

Parameter

2085509

Units

ug/L

50176222002

35326734008

Result

Result

Spike Conc.

MS

Spike

Conc.

50

LCS Result

LCS % Rec

MSD

Result

48.5

% Rec Limits

98

80-120

Qualifiers

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

2085510

2085511

Result

47.2

MSD Spike MS

MS % Rec

94

4.2

MSD % Rec

97

% Rec Max Limits RPD RPD

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

Glyphosate

Glyphosate

2085512

<4.2

ND

MS

50

2085513

49.2

MS MSD % Rec

80-120

Max **RPD** RPD Qual

30

Qual

MSD

Conc.

50

Spike Spike Conc. Conc. 50 50

MS MSD Result Result 52.8 48.9

% Rec 106 % Rec Limits 98

80-120

8 30

Date: 08/10/2017 04:37 PM

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Qualifiers



QUALITY CONTROL DATA

Project: LBG, Inc. Pace Project No.: 35326821

QC Batch: 384637 QC Batch Method:

EPA 504.1 Associated Lab Samples: 35326821001 Analysis Method:

Blank

EPA 504.1

Analysis Description:

504 EDB DBCP

METHOD BLANK: 2088603

1,2-Dibromoethane (EDB)

Date: 08/10/2017 04:37 PM

Matrix: Water

Associated Lab Samples: 35326821001

Parameter Units 1,2-Dibromo-3-chloropropane ug/L

ug/L

Reporting Limit

MDL Analyzed

Result < 0.0064 0.020 0.0064 08/02/17 21:41 < 0.0075 0.010 0.0075 08/02/17 21:41

LABORATORY CONTROL SAMPLE &	LCSD: 2088604		20	89408						
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromo-3-chloropropane 1,2-Dibromoethane (EDB)	ug/L ug/L	.25 .25	0.27 0.26	0.28 0.27	108 104	110 110	70-130 70-130	2 5	40 40	

MATRIX SPIKE & MATRIX SPI	IKE DUPLICA	TE: 20892	42		2089243							
			MS	MSD								
	3	5327041001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,2-Dibromo-3- chloropropane	ug/L	0.0063U	.44	.44	0.58	0.62	134	141	65-135	5	40	M1
1,2-Dibromoethane (EDB)	ug/L	0.0074U	.44	.44	0.52	0.57	119	130	65-135	9	40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



EPA 505

Analysis Method:

Project: LBG, Inc. Pace Project No.: 35326821

Date: 08/10/2017 04:37 PM

QC Batch: 33932

QC Batch Method: EPA 505 Analysis Description: 505 GCS Pesticides

Associated Lab Samples: 35326821001

METHOD BLANK: 157655 Matrix: Water

Associated Lab Samples: 35326821001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alachlor	ug/L	<0.20	0.20	0.20	08/03/17 15:11	
Aldrin	ug/L	<0.025	0.025	0.025	08/03/17 15:11	
Chlordane (Technical)	ug/L	<0.20	0.20	0.20	08/03/17 15:11	
Dieldrin	•	<0.050	0.050	0.20	08/03/17 15:11	
	ug/L					
Endrin	ug/L	<0.010	0.010	0.010	08/03/17 15:11	
gamma-BHC (Lindane)	ug/L	< 0.020	0.020	0.020	08/03/17 15:11	
Heptachlor	ug/L	< 0.025	0.025	0.025	08/03/17 15:11	
Heptachlor epoxide	ug/L	< 0.020	0.020	0.020	08/03/17 15:11	
Hexachlorobenzene	ug/L	<0.10	0.10	0.10	08/03/17 15:11	
Hexachlorocyclopentadiene	ug/L	<0.10	0.10	0.10	08/03/17 15:11	
Methoxychlor	ug/L	<0.10	0.10	0.10	08/03/17 15:11	
PCB Screen	ug/L	< 0.40	0.40	0.40	08/03/17 15:11	
Toxaphene	ug/L	<1.0	1.0	1.0	08/03/17 15:11	
Decachlorobiphenyl (S)	%.	90	30-150		08/03/17 15:11	
Tetrachloro-m-xylene (S)	%.	100	30-150		08/03/17 15:11	

LABORATORY CONTROL SAMPLE:	157656					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Alachlor	ug/L	.48	0.45	94	70-130	
Aldrin	ug/L	.048	0.045	93	70-130	
Chlordane (Technical)	ug/L		< 0.20			
Dieldrin	ug/L	.048	< 0.050	87	70-130	
Endrin	ug/L	.048	0.038	80	70-130	
gamma-BHC (Lindane)	ug/L	.048	0.048	101	70-130	
Heptachlor	ug/L	.048	0.044	92	70-130	
Heptachlor epoxide	ug/L	.048	0.043	89	70-130	
Hexachlorobenzene	ug/L	.048	< 0.10	90	70-130	
Hexachlorocyclopentadiene	ug/L	.048	< 0.10	91	70-130	
Methoxychlor	ug/L	.24	0.21	89	70-130	
PCB Screen	ug/L		< 0.40			
Toxaphene	ug/L		<1.0			
Decachlorobiphenyl (S)	%.			97	30-150	
Tetrachloro-m-xylene (S)	%.			105	30-150	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG, Inc.
Pace Project No.: 35326821

Date: 08/10/2017 04:37 PM

LABORATORY CONTROL SAMPLE:	157657						
		Spike	LCS	LCS	% Rec		
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers	
Alachlor	ug/L		<0.20				
Aldrin	ug/L		<0.025				
Chlordane (Technical)	ug/L		<0.20				
Dieldrin	ug/L		< 0.050				
Endrin	ug/L		< 0.010				
gamma-BHC (Lindane)	ug/L		< 0.020				
Heptachlor	ug/L		< 0.025				
Heptachlor epoxide	ug/L		< 0.020				
Hexachlorobenzene	ug/L		<0.10				
Hexachlorocyclopentadiene	ug/L		< 0.10				
Methoxychlor	ug/L		< 0.10				
PCB Screen	ug/L		< 0.40				
Toxaphene	ug/L	18.3	17.8	98	70-130		
Decachlorobiphenyl (S)	%.			115	30-150		
Tetrachloro-m-xylene (S)	%.			99	30-150		
LABORATORY CONTROL SAMPLE:	157658						
ENDORATOR FOUNTIEL.	107000	Spike	LCS	LCS	% Rec		
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers	
Alachlor	ug/L	.095	<0.20	109	70-130		
Aldrin	ug/L	.0095	< 0.025	109	70-130		
Chlordane (Technical)	ug/L		<0.20				
Dieldrin	ug/L	.0095	< 0.050	98	70-130		
Endrin	ug/L	.0095	< 0.010	95	70-130		
gamma-BHC (Lindane)	ug/L	.0095	< 0.020	96	70-130		
Heptachlor	ug/L	.0095	< 0.025	100	70-130		
Heptachlor epoxide	ug/L	.0095	< 0.020	98	70-130		
Hexachlorobenzene	ug/L	.0095	<0.10	100	70-130		
Hexachlorocyclopentadiene	ug/L	.0095	<0.10	87	70-130		
Methoxychlor	ug/L	.048	<0.10	95	70-130		
PCB Screen	ug/L		< 0.40				
Toxaphene	ug/L		<1.0				
Decachlorobiphenyl (S)	%.			87	30-150		
Tetrachloro-m-xylene (S)	%.			97	30-150		
MATRIX SPIKE SAMPLE:	157659						
		70259130	001 Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Alachlor	ug/L		<0.20	<0.20)		
Aldrin	ug/L		0.025	< 0.025	5		
Chlordane (Technical)	ug/L		<0.20	<0.20)		
Dieldrin	ug/L		0.050	< 0.050)		
Endrin	ug/L		0.010	<0.010)		
gamma-BHC (Lindane)	ug/L	<	0.020	< 0.020)		

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REPORT OF LABORATORY ANALYSIS

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Project: LBG, Inc. Pace Project No.: 35326821

Date: 08/10/2017 04:37 PM

MATRIX SPIKE SAMPLE:	157659						
		7025913001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Heptachlor	ug/L	<0.025		<0.025			
Heptachlor epoxide	ug/L	<0.020		< 0.020			
Hexachlorobenzene	ug/L	<0.10		<0.10			
Hexachlorocyclopentadiene	ug/L	<0.10		< 0.10			
Methoxychlor	ug/L	<0.10		0.55			
PCB Screen	ug/L	< 0.40		< 0.40			
Toxaphene	ug/L	<1.0	18.3	15.8	86	65-135	
Decachlorobiphenyl (S)	%.				117	30-150	
Tetrachloro-m-xylene (S)	%.				101	30-150	

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Project: LBG, Inc. Pace Project No.: 35326821

Date: 08/10/2017 04:37 PM

QC Batch: 384956 Analysis Method: EPA 508.1

QC Batch Method: EPA 508.1 Analysis Description: 508 GCS Pesticide

Associated Lab Samples: 35326821001

METHOD BLANK: 2090536 Matrix: Water

Associated Lab Samples: 35326821001

		Blank	Reporting				
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers	
Alachlor	ug/L	<0.035	0.20	0.035	08/06/17 00:04		
Atrazine	ug/L	< 0.063	0.10	0.063	08/06/17 00:04		
Butachlor	ug/L	< 0.027	0.10	0.027	08/06/17 00:04		
Chlordane (Technical)	ug/L	< 0.047	0.20	0.047	08/06/17 00:04		
Dieldrin	ug/L	< 0.019	0.10	0.019	08/06/17 00:04		
Endrin	ug/L	< 0.0070	0.010	0.0070	08/06/17 00:04		
gamma-BHC (Lindane)	ug/L	< 0.0030	0.020	0.0030	08/06/17 00:04		
Heptachlor	ug/L	< 0.012	0.040	0.012	08/06/17 00:04		
Heptachlor epoxide	ug/L	< 0.0030	0.020	0.0030	08/06/17 00:04		
Hexachlorobenzene	ug/L	< 0.019	0.10	0.019	08/06/17 00:04		
Hexachlorocyclopentadiene	ug/L	< 0.032	0.10	0.032	08/06/17 00:04		
Methoxychlor	ug/L	< 0.051	0.10	0.051	08/06/17 00:04		
Metolachlor	ug/L	< 0.047	0.10	0.047	08/06/17 00:04		
Propachlor	ug/L	< 0.030	0.10	0.030	08/06/17 00:04		
Simazine	ug/L	< 0.069	0.070	0.069	08/06/17 00:04		
Toxaphene	ug/L	<0.61	1.0	0.61	08/06/17 00:04		
Decachlorobiphenyl (S)	%	88	70-130		08/06/17 00:04		

ABORATORY CONTROL SAMPLE:	2090537					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
lachlor	ug/L		0.92	92	70-130	
trazine	ug/L	1.2	1.2	95	70-130	
tachlor	ug/L	.5	0.46	93	70-130	
lordane (Technical)	ug/L		< 0.047			
eldrin	ug/L	.5	0.46	91	70-130	
drin	ug/L	.05	0.047	94	70-130	
nma-BHC (Lindane)	ug/L	.1	0.097	97	70-130	
tachlor	ug/L	.2	0.16	78	70-130	
tachlor epoxide	ug/L	.1	0.092	92	70-130	
achlorobenzene	ug/L	.5	0.42	85	70-130	
achlorocyclopentadiene	ug/L	.5	0.41	82	70-130	
hoxychlor	ug/L	.5	0.50	100	70-130	
tolachlor	ug/L	.5	0.47	94	70-130	
pachlor	ug/L	.5	0.46	91	70-130	
azine	ug/L	.88	1.0	117	70-130	
aphene	ug/L		< 0.61			
achlorobiphenyl (S)	%			93	70-130	

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Project: LBG, Inc. Pace Project No.: 35326821

Date: 08/10/2017 04:37 PM

MATRIX SPIKE & MATRIX SPII	KE DUPLICA	ATE: 20913	31 MS	MSD	2091332							
	3	5327017001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Alachlor	ug/L	0.033U	2	2	2.6	2.6	131	129	65-135	2	40	
Atrazine	ug/L	0.060U	2.5	2.5	3.0	2.4	122	98	65-135	22	40	
Butachlor	ug/L	0.026U	1	1	1.3	1.2	131	119	65-135	9	40	
Chlordane (Technical)	ug/L	0.045U			< 0.094	< 0.094					40	
Dieldrin	ug/L	0.018U	1	1	0.99	0.94	99	94	65-135	5	40	
Endrin	ug/L	0.0067U	.1	.1	0.071	0.20	71	201	65-135	95	40	M1,R1
gamma-BHC (Lindane)	ug/L	0.0029U	.2	.2	0.22	0.22	108	110	65-135	2	40	
Heptachlor	ug/L	0.011U	.4	.4	0.44	0.44	110	109	65-135	1	40	
Heptachlor epoxide	ug/L	0.0029U	.2	.2	0.17	0.17	85	85	65-135	1	40	
Hexachlorobenzene	ug/L	0.018U	1	1	0.92	0.89	92	89	65-135	3	40	
Hexachlorocyclopentadiene	ug/L	0.030U	1	1	1.1	1.1	107	105	65-135	1	40	
Methoxychlor	ug/L	0.049U	1	1	1.3	1.4	135	137	65-135	1	40	M1
Metolachlor	ug/L	0.045U	1	1	1.0	1.3	100	132	65-135	28	40	
Propachlor	ug/L	0.029U	1	1	2.5	2.7	253	268	65-135	6	40	M1
Simazine	ug/L	0.066U	1.8	1.8	3.4	3.3	192	188	65-135	2	40	M1
Toxaphene	ug/L	0.58U			<1.2	<1.2					40	
Decachlorobiphenyl (S)	%						100	99	70-130		40	

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Project: LBG, Inc. Pace Project No.: 35326821

Date: 08/10/2017 04:37 PM

QC Batch: 384402 Analysis Method: EPA 515.3

QC Batch Method: EPA 515.3 Analysis Description: 5153 GCS Herbicides

Associated Lab Samples: 35326821001

METHOD BLANK: 2086953 Matrix: Water

Associated Lab Samples: 35326821001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
2,4,5-TP (Silvex)	ug/L	<0.16	0.20	0.16	08/04/17 14:32	
2,4-D	ug/L	<0.081	0.10	0.081	08/04/17 14:32	
Dalapon	ug/L	< 0.89	1.0	0.89	08/04/17 14:32	
Dicamba	ug/L	< 0.067	0.10	0.067	08/04/17 14:32	
Dinoseb	ug/L	<0.16	0.20	0.16	08/04/17 14:32	
Pentachlorophenol	ug/L	< 0.030	0.040	0.030	08/04/17 14:32	
Picloram	ug/L	< 0.094	0.10	0.094	08/04/17 14:32	
2,4-DCAA (S)	%	96	70-130		08/04/17 14:32	

LABORATORY CONTROL SAMPLE:	2086954					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
2,4,5-TP (Silvex)	ug/L		1.0	104	70-130	
2,4-D	ug/L	.5	0.55	110	70-130	
Dalapon	ug/L	5	5.1	102	70-130	
Dicamba	ug/L	.5	0.48	97	70-130	
Dinoseb	ug/L	1	1.0	100	70-130	
Pentachlorophenol	ug/L	.2	0.20	99	70-130	
Picloram	ug/L	.5	0.60	120	70-130	
2,4-DCAA (S)	%			91	70-130	

MATRIX SPIKE & MATRIX	SPIKE DUPLICA	ATE: 20873		MCD	2087343							
Parameter	3 Units	35326789001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4,5-TP (Silvex)	ug/L	0.00016U mg/L	1	1	1.1	1.1	111	112	70-130	1	40	
2,4-D	ug/L	0.000081 U mg/L	.5	.5	0.69	0.47	138	95	70-130	37	40	M1
Dalapon	ug/L	0.00089U mg/L	5	5	6.5	6.1	130	122	70-130	6	40	
Dicamba	ug/L	0.067U	.5	.5	0.49	0.47	98	93	70-130	5	40	
Dinoseb	ug/L	0.00016U mg/L	1	1	1.0	0.97	100	97	70-130	3	40	
Pentachlorophenol	ug/L	0.000030 U mg/L	.2	.2	0.20	0.20	100	98	70-130	2	40	
Picloram	ug/L	0.000094 U mg/L	.5	.5	0.71	0.73	142	146	70-130	3	40	M1
2,4-DCAA (S)	%	· ·					103	101	70-130			

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Project: LBG, Inc. Pace Project No.: 35326821

Date: 08/10/2017 04:37 PM

MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	ATE: 208899	93		2088994							
			MS	MSD					_			
	3	5327041001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
2,4,5-TP (Silvex)	ug/L	0.16U	1	1	1.2	1.2	117	119	70-130	2	40	
2,4-D	ug/L	0.081U	.5	.5	0.63	0.64	126	128	70-130	2	40	
Dalapon	ug/L	0.89U	5	5	5.8	5.7	116	114	70-130	2	40	
Dicamba	ug/L	0.067U	.5	.5	0.51	0.50	102	101	70-130	1	40	
Dinoseb	ug/L	0.16U	1	1	1.1	1.1	108	107	70-130	0	40	
Pentachlorophenol	ug/L	0.030U	.2	.2	0.21	0.21	106	107	70-130	1	40	
Picloram	ug/L	0.094U	.5	.5	0.61	0.73	121	145	70-130	18	40 ľ	v 11
2,4-DCAA (S)	%						108	105	70-130			

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Project: LBG, Inc.
Pace Project No.: 35326821

Date: 08/10/2017 04:37 PM

QC Batch: 384645 Analysis Method: EPA 525.2

QC Batch Method: EPA 525.2 Analysis Description: 525.2 Base Neutral Extractables

Associated Lab Samples: 35326821001

METHOD BLANK: 2088620 Matrix: Water

Associated Lab Samples: 35326821001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
					Analyzed	Qualificis
Benzo(a)pyrene	ug/L	< 0.013	0.10	0.013	08/03/17 16:09	
bis(2-Ethylhexyl)adipate	ug/L	<0.38	1.6	0.38	08/03/17 16:09	
bis(2-Ethylhexyl)phthalate	ug/L	< 0.50	2.0	0.50	08/03/17 16:09	
Metribuzin	ug/L	<0.15	0.30	0.15	08/03/17 16:09	
1,3-Dimethyl-2-nitrobenzene(S)	%	100	70-130		08/03/17 16:09	
Perylene-d12 (S)	%	79	70-130		08/03/17 16:09	
Triphenylphosphate (S)	%	106	70-130		08/03/17 16:09	

LABORATORY CONTROL SAMPLE:	2088621					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Benzo(a)pyrene	ug/L		0.32	80	70-130	
bis(2-Ethylhexyl)adipate	ug/L	6.4	7.9	123	70-130	
bis(2-Ethylhexyl)phthalate	ug/L	8	9.0	112	70-130	
Metribuzin	ug/L	1.2	1.0	85	70-130	
1,3-Dimethyl-2-nitrobenzene(S)	%			97	70-130	
Perylene-d12 (S)	%			83	70-130	
Triphenylphosphate (S)	%			104	70-130	

MATRIX SPIKE & MATRIX SP	IKE DUPLICA	TE: 20903	65		2090366							
			MS	MSD								
	3	5326706001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Benzo(a)pyrene	ug/L	0.013U	.8	.8	0.80	0.89	100	111	70-130	11	40	
bis(2-Ethylhexyl)adipate	ug/L	0.39U	12.8	12.8	13.6	13.8	106	108	70-130	2	40	
bis(2-Ethylhexyl)phthalate	ug/L	0.51U	16	16	16.2	16.5	102	103	70-130	1	40	
Metribuzin	ug/L	0.15U	2.4	2.4	< 0.30	< 0.30	0	11	70-130		40	M1
1,3-Dimethyl-2- nitrobenzene(S)	%						97	97	70-130			
Perylene-d12 (S)	%						97	99	70-130			
Triphenylphosphate (S)	%						93	99	70-130			

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Project: LBG, Inc.
Pace Project No.: 35326821

Date: 08/10/2017 04:37 PM

QC Batch: 384603 Analysis Method: EPA 548.1

QC Batch Method: EPA 548.1 Analysis Description: 548 GCS Endothall

Associated Lab Samples: 35326821001

METHOD BLANK: 2088244 Matrix: Water

Associated Lab Samples: 35326821001

Blank Reporting
Parameter Units Result Limit MDL Analyzed Qualifiers

Endothall ug/L <4.3 9.0 4.3 08/08/17 03:25

LABORATORY CONTROL SAMPLE: 2088245

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Endothall ug/L 50 43.3 87 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2088667 2088668

MS MSD 35326771004 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual Endothall 80-120 30 M1 ug/L <4.3 50 50 32.6 28.2 65 56 14

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2088669 2088670

MS MSD MS MSD MS MSD 35326771005 Spike Spike % Rec Max % Rec RPD Parameter Units Result Conc. Conc. Result Result % Rec Limits RPD Qual Endothall ug/L <4.3 50 50 31.8 37.6 64 75 80-120 17 30 M1

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Project: LBG, Inc.
Pace Project No.: 35326821

Date: 08/10/2017 04:37 PM

QC Batch: 384638 Analysis Method: EPA 549.2

QC Batch Method: EPA 549.2 Analysis Description: 549 HPLC Paraquat Diquat

Associated Lab Samples: 35326821001

METHOD BLANK: 2088605 Matrix: Water

Associated Lab Samples: 35326821001

Blank Reporting
Parameter Units Result Limit MDL Analyzed Qualifiers

Diquat ug/L <0.30 0.40 0.30 08/03/17 06:02

LABORATORY CONTROL SAMPLE: 2088606

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers 72 Diquat ug/L 2 1.4 70-130

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2090355 2090356

MS MSD MS 35326734004 Spike Spike MS MSD MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual Diquat 2 2 1.5 77 70-130 30 M1 ug/L < 0.30 1.4 68 12

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2090357 2090358

MS MSD MS MSD MS MSD 35326734005 Spike Spike % Rec Max Parameter % Rec RPD Units Result Conc. Conc. Result Result % Rec Limits RPD Qual 2 2 Diquat ug/L < 0.30 1.4 1.5 70 74 70-130 5 30

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: LBG, Inc.
Pace Project No.: 35326821

Sample: C-21 PWS:	Lab ID: 35326 Site ID:	Sample Type: Collected: 07/27/17 08:30	Received:	07/28/17 10:20	Matrix: Drinking	Water
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0	1.64U ± 0.631 (1.64) C:NA T:NA	pCi/L	08/08/17 08:12	2 12587-46-1	
Gross Beta	EPA 900.0	1.70U ± 0.644 (1.70) C:NA T:NA	pCi/L	08/08/17 08:12	2 12587-47-2	
Radium-226	EPA 903.1	0.812U ± 0.513 (0.812) C:NA T:97%	pCi/L	08/08/17 11:37	7 13982-63-3	
Radium-228	EPA 904.0	0.729U ± 0.341 (0.729) C:77% T:81%	pCi/L	08/07/17 11:38	3 15262-20-1	
Total Uranium	ASTM D5174-97	0.130 ± 0.006 (0.193) C:NA T:NA	ug/L	08/10/17 13:1	1 7440-61-1	



Project: LBG, Inc. Pace Project No.: 35326821

QC Batch Method:

0000

QC Batch: 267061

61 Analysis Method:

Analysis Description: 904.0 Radium 228

EPA 904.0

Associated Lab Samples: 35326821001

EPA 904.0

METHOD BLANK: 1314773 Matrix: Water

Associated Lab Samples: 35326821001

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.470 ± 0.374 (0.743) C:79% T:78%
 pCi/L
 08/07/17 11:37

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG, Inc. Pace Project No.: 35326821

QC Batch: 267622 Analysis Method: ASTM D5174-97

QC Batch Method: ASTM D5174-97 Analysis Description: D5174.97 Total Uranium KPA

Associated Lab Samples: 35326821001

METHOD BLANK: 1317375 Matrix: Water

Associated Lab Samples: 35326821001

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Total Uranium
 0.274 ± 0.012 (0.193) C:NA T:NA
 ug/L
 08/09/17 17:24

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG, Inc. Pace Project No.: 35326821

QC Batch: 267063 Analysis Method: EPA 900.0

QC Batch Method: EPA 900.0 Analysis Description: 900.0 Gross Alpha/Beta

Associated Lab Samples: 35326821001

METHOD BLANK: 1314775 Matrix: Water

Associated Lab Samples: 35326821001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	0.281 ± 0.459 (0.989) C:NA T:NA	pCi/L	08/08/17 08:11	
Gross Beta	0.578 ± 0.807 (1.77) C:NA T:NA	pCi/L	08/08/17 08:11	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LBG, Inc. Pace Project No.: 35326821

QC Batch Method:

QC Batch:

267059

EPA 903.1

Analysis Method:

EPA 903.1

Analysis Description:

903.1 Radium-226

Associated Lab Samples: 35326821001

METHOD BLANK: 1314770

Matrix: Water

Associated Lab Samples: 35326821001

Parameter

Act ± Unc (MDC) Carr Trac

Units pCi/L Analyzed

Qualifiers

Radium-226

 0.0690 ± 0.315 (0.641) C:NA T:99%

08/08/17 11:21

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: LBG, Inc.
Pace Project No.: 35326821

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-O Pace Analytical Services - Ormond Beach
PASI-PA Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

Date: 08/10/2017 04:37 PM

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

P4 Sample field preservation does not meet EPA or method recommendations for this analysis.

R1 RPD value was outside control limits.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LBG, Inc.
Pace Project No.: 35326821

Date: 08/10/2017 04:37 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35326821001	C-21	EPA 504.1	384637	EPA 504.1	384898
35326821001	C-21	EPA 505	33932	EPA 505	33984
35326821001	C-21	EPA 508.1	384956	EPA 508.1	385484
35326821001	C-21	EPA 515.3	384402	EPA 515.3	384691
35326821001	C-21	EPA 531.1	384072		
35326821001	C-21	EPA 547	384078		
35326821001	C-21	EPA 549.2	384638	EPA 549.2	384971
35326821001	C-21	EPA 525.2	384645	EPA 525.2	385020
35326821001	C-21	EPA 548.1	384603	EPA 548.1	385377
35326821001	C-21	EPA 900.0	267063		
35326821001	C-21	EPA 903.1	267059		
35326821001	C-21	EPA 904.0	267061		
35326821001	C-21	ASTM D5174-97	267622		

Phone (845) 562-0890 Fax (845) 562-0841														Lan	Laboratories inc.
Client Information (Sub Contract Lab)	Sampler:			Lab PM: Bayer,	Debra					Car	rier Trac	Carrier Tracking No(s):	95	COC No: 420-9160.1	
	Phone:			E-Mail; dbaye	E-Mail: dbayer@envirotestlaboratories.com	otestlat	porator	ies.con	_					Page: Page 1 of 1	
Company: Pace Analytical Ormond Beach					Ė			Analysis Requested	sis R	edne	sted			STL Job #: 420-124221-1	1.1
Address: 8 East Tower Circle	Due Date Requested:	tandama	2.0				M	D24	Wh		1			Preservation Codes	ő
City: Ormond Beach State, Zip:	TAT Requested (days):	:(s	3		T = N-	_	ALM TO BE	1.77.73	חנטטי					A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4	M - Hexane N - None O - ASNaO2 P - Na2O4S Q - Na2SO3
FL, 321/4	#04			Ī	HIO,	_								F-MeOH	
Phone: 111-222-3333(Tel)	i D					7. 7.4		Dec G		_				G - Amchlor H - Ascorbic Acid	
Email:	#OM				(oN	1				_				J- DI Water	
Project Name: LBG, Inc.	Project #: 42001269				10 89/		250 LSC1			-		nixoi		ALC: YELL	
	SSOW#:				N) asi	77.00				200		а \тэ _л		oo to to other:	
		0			ield Filtered MSM mrothe ARTNODBU:	ASTNOOSU	АЯТИОЗВИ	АЯТИОЭВU: АЯТИОЭВU:	АЯТИОЭВО	аятиоэви: Аятиоэви:	АЯТИОЭВО	Аятиоэви		edmuM lsto	Coocial Instructions (Note:
Sample Identification Client ID (Lab ID)	Sample Date		Preservation Code:	300	X	100	100	otto		Time I	1000	5 JA			
C-21 (420-124221-1)	THICH	8:30		Water		×	×	×	×	×	×	×		8	
40000010 - HOL							I								
T7007565 - #OM															
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ant	Poison B Unknown	ш	Radiological		Sam	ole Dis	le Disposal (A 1 Retum To Client	A fee	тау Б	Disp	assessed if san Disposal By Lab	f sampli Lab	ss are re	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Archive For Mon	nan 1 month) Months
Other (specify)					Spec	Special Instructions/QC Requirements:	ructions	NOC R	equirer	nents:					
Empty Kit Relinquished by:		Date:		1	Time:						Metho	Method of Shipment:	nent:		
Relinquished by Relinquished by Relinquished by	Date/Time: 7/27/2 Date/Time:	1050	0 0	Company SC	α, α	Received by:	200	MC	10.0	10,01-780	23	Date	Date/Time:	J 1036	Company
and district of the first of th	Date/Time:			Company	u.	Received by:	.X.					Date	Date/Time:		Company
Kelinquished by:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0)	funding						d					
- William Control					-										



Project Manager Review:

Document Name: Sample Condition Upon Receipt Form Document No.: F-FL-C-007 rev. 11

Document Revised: February 6, 2017 Issuing Authority: Pace Florida Quality Office

Page 29 of 35

Date:

Sample Condition Upon Receipt Form (SCUR)

WO#: 35326821 Project # Date and Initials of person: Project Manager: Examining contents: PM: VEG Due Date: 08/11/17 Label: Client: CLIENT: EVNTES Deliver: pH:_ Thermometer Used: T286 Date: 7/28/17 Time: 1020 Initials: 55 Cooler #1 Temp.°C q . q (Visual) _ +0 · l (Correction Factor) _ 10 · O (Actual) Samples on ice, cooling process has begun Cooler #2 Temp.°C_____(Visual) _____(Correction Factor) _____(Actual) Samples on ice, cooling process has begun Cooler #3 Temp. C_____(Visual) _____(Correction Factor) _____(Actual) Samples on ice, cooling process has begun ___(Visual) _____(Correction Factor) _____(Actual) Cooler #4 Temp.°C Samples on ice, cooling process has begun ____(Visual) _____(Correction Factor) _____(Actual) Cooler #5 Temp.°C Samples on ice, cooling process has begun Cooler #6 Temp.°C_____(Visual) _____(Correction Factor) ____ (Actual) Samples on ice, cooling process has begun Fed Ex UPS USPS Client Commercial Pace Other_ Shipping Method:

First Overnight

Priority Overnight

Standard Overnight

Ground □ Other____ Billing: ☐ Recipient ☐ Sender ☐ Third Party Unknown Tracking # Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No Ice: (Wet Blue None Packing Material: Bubble Wrap Bubble Bags None Other Samples shorted to lab (If Yes, complete) Shorted Date: Shorted Time: Qty: Comments: Chain of Custody Present Chain of Custody Filled Out -□Yes □ No □N/A Relinquished Signature & Sampler Name COC ₽Yes □ No □N/A Samples Arrived within Hold Time "□Yes □ No □N/A Rush TAT requested on COC □Yes □ No □N/A Sufficient Volume **⊟**Yes □ No □N/A Correct Containers Used □Yes □ No □N/A Containers Intact □ No □N/A Sample Labels match COC (sample IDs & date/time of □Yes □ No □N/A All containers needing acid/base preservation have been Preservation Information: checked TYes \(\text{No} \(\text{NN} \) \(\text{NA} \) Preservative: All Containers needing preservation are found to be in Lot #/Trace #: compliance with EPA recommendation: 'TYes □ No □N/A Date: Exceptions: VOA, Coliform, TOC, O&G, Carbamates Initials: Headspace in VOA Vials? (>6mm): □Yes ⊟-No □N/A Trip Blank Present: □Yes □ No □N/A Client Notification/ Resolution: Person Contacted: Date/Time: and requested lab proceed of analyses - Inth



Pace Analytical Services, Inc.

1700 Elm Street Minneapolis, MN 55414 Phone: 612.607.1700

Fax: 612.607.6444

Report Prepared for:

Bo Garcia PASI Florida 8 East Tower Circle Ormond Beach FL 32174

> **REPORT OF** LABORATORY **ANALYSIS FOR** 2,3,7,8-TCDD

Report Summary:

This report contains results of one drinking water sample analyzed to determine 2,3,7,8-TCDD content. This sample was analyzed according to Method 1613 by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

Report Information:

Pace Project #: 10397651

Sample Receipt Date: 08/01/2017

Client Project #: 35326821

Client Sub PO #: N/A **State Cert #: 11647**

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 Drinking Water Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Sarah Platzer, your Pace Project Manager.

This report has been reviewed by:

August 07, 2017

Sarah Platzer, Project Manager 612-607-6451

(612) 607-6444 (fax)

sarah.platzer@pacelabs.com



Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.

Report Prepared Date:

August 7, 2017



Tel: 612-607-1700 Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Montana	CERT0092
Alabama	40770	Nebraska	NE-OS-18-06
Alaska	MN00064	Nevada	MN00064
Alaska	UST-078	New Jersey (NE	MN002
Arizona	AZ0014	New York (NEL	11647
Arkansas	88-0680	New hampshire	2081
CNMI Saipan	MP0003	North Carolina	27700
California	MN00064	North Carolina	530
Colorado	MN00064	North Dakota	R-036
Connecticut	PH-0256	Ohio	41244
EPA Region 8	8TMS-L	Ohio VAP	CL101
Florida (NELAP	E87605	Oklahoma	9507
Georgia (EDP)	959	Oregon (ELAP)	MN200001
Guam EPA	959	Oregon (OREL	MN300001
Hawaii	MN00064	Pennsylvania	68-00563
Idaho	MN00064	Puerto Rico	MN00064
Illinois	200011	South Carolina	74003001
Indiana	C-MN-01	Tennessee	TN02818
Iowa	368	Texas	T104704192
Kansas	E-10167	Utah (NELAP)	MN00064
Kentucky	90062	Virginia	460163
Louisiana	03086	Washington	C486
Louisiana	MN00064	West Virginia #	9952C
Maryland	322	West Virginia D	382
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-L
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

Tel: 612-607-1700 Fax: 612- 607-6444

Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X =%D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

**In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document This chain of custody is considered complete as is since this information is available in the owner laboratory

93 Wonday, July 31, 2017 2:22:22 PM

Page 1 of 1

FMT-ALL-C-002rev.00 24March2009



Document Name:

Sample Condition Upon Receipt Form

Document No.: F-MN-L-213-rev.20

Document Revised: 19Dec2016 Page 1 of 2

Issuing Authority:
Pace Minnesota Quality Office

Sample Condition Upon Receipt PACE FL		•	Project	# WO#:10397651
Courier: Fed Ex UPS	USPS		lient	
	Other:	_		
Tracking Number: 7422 5600 37 46				1622,621
Custody Seal on Cooler/Box Present?	Si	eals Int	act?	Yes Optional: Proj. Due Date: Proj. Name:
Packing Material: Bubble Wrap	None		Other:	Temp Blank? Yes
Thermometer	Туре	of Ice:	₽ wet	☐Blue ☐None ☐Samples on ice, cooling process has begun
Cooler Temp Read (°C): 2-7 Cooler Temp Correct	ted (°C):	2.6	1	Biological Tissue Frozen? Yes No
Temp should be above freezing to 6°C Correction Factor:				e and Initials of Person Examining Contents: (2)
USDA Regulated Soil (A)/A, water sample)		_		
Did samples originate in a quarantine zone within the United State NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)?	es: AL, AF	R, CA, FL ∏Y		7
	ted Soil			JNo including Hawaii and Puerto Rico}? Lyes No Q-338) and include with SCUR/COC paperwork.
				COMMENTS:
Chain of Custody Present?	A ≧Pres	□No		1.
Chain of Custody Filled Out?	⊘ Yes	□No		2.
Chain of Custody Relinquished?	Pes	□No		3.
Sampler Name and/or Signature on COC?	∐Yes	□No	\$₽N/A	4.
Samples Arrived within Hold Time?	Tr es	□No		5.
Short Hold Time Analysis (<72 hr)?	Yes	H 60		6.
Rush Turn Around Time Requested?	Pres	□No		7.
Sufficient Volume?	Yes	□No		В.
Correct Containers Used?	es	□No		9.
-Pace Containers Used?	(To	□No		
Containers Intact?	V yes	□No		10.
Filtered Volume Received for Dissolved Tests?	□Yes	□No	SELEN/A.	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	₩ Es	□No		12.
-Includes Date/Time/ID/Analysis Matrix:				
All containers needing acid/base preservation have been checked?	—		т.	13. ☐HNO₃ ☐H₂SO₄ ☐NaOH Positive for Res.
All containers needing preservation are found to be in	∐Yes	□No	[DAYA	Chłorine? Y N Sample #
compliance with EPA recommendation?				Sumple #
(HNO ₃ , H ₂ SO ₄ , <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC Oil and Grease,	□Yes	□No	12 00/A	
DRO/8015 (water) and pioxiñ.	∑ ¥es	□No	□n/a	Initial when Lot # of added completed: preservative:
Headspace in VOA Vials (>6mm)?	□Yes	□No	⊡ 47/A	14.
Trip Blank Present?	Yes	□No	PN/A	15.
Trip Blank Custody Seals Present?	□Yes	□No	⊒ n√A	
Pace Trip Blank Lot # (if purchased):	_			
CLIENT NOTIFICATION/RESOLUTION				Field Data Required? Yes No
Person Contacted:				Date/Time:
Comments/Resolution:				
				TANK TO THE TANK T
,		-		
Project Manager Review: March Carolina control	iance car	i inler or	conv of this	Date: 8/1/2017

hold, incorrect preservative, out of temp, incorrect containers).



Drinking Water Analysis Results 2,3,7,8-TCDD -- USEPA Method 1613B

Tel: 612-607-1700 Fax: 612-607-6444

Client...... PASI Florida Lab Sample ID.... 35326821001 Date Collected.....07/27/2017
Date Received.....08/01/2017
Date Extracted.....08/02/2017

	Sample C-21	Method Blank	Lab Spike	Lab Spike Dup	
[2,3,7,8-TCDD]	2,3,7,8-TCDD] ND				
EDL	9L 4.3 pg/L 3.8 pg/L				
2,3,7,8-TCDD Recovery			111%	113%	
Spike Recovery Limit			73-146%	73-146%	
RPD			2.0%		
IS Recovery	52%	59%	65%	55%	
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%	
CS Recovery 73% 72%		72%	86%	81%	
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%	
Filename	F170803B_15	F170803B_02	F170803A_09	F170803A_10	
Analysis Date	08/04/2017	08/03/2017	08/03/2017	08/03/2017	
Analysis Time	03:56	18:42	15:10	15:51	
Analyst	SMT	SMT	SMT	SMT	
Volume	0.946L	1.019L	1.047L	1.054L	
Dilution	NA	NA	NA	NA	
ICAL Date	01/11/2017	01/11/2017	01/11/2017	01/11/2017	
CCAL Filename	F170803B_01	F170803B_01	F170803A_01	F170803A_01	

! = Outside the Control Limits

ND = Not Detected

EDL = Estimated Detection Limit

Limits = Control Limits from Method 1613 (10/94 Revision), Tables 6A and 7A

RPD = Relative Percent Difference of Lab Spike Recoveries

IS = Internal Standard $[2,3,7,8\text{-TCDD-}^{13}C_{12}]$ CS = Cleanup Standard $[2,3,7,8\text{-TCDD-}^{37}Cl_4]$

Project No......10397651



ANALYTICAL REPORT

Job Number: 420-123595-5 SDG Number: Clovewood Job Description: LBG, Inc.

For:

Leggette, Brashears & Graham, Inc. 4 Research Drive Shelton, CT 06464

Attention: Stacy Stieber

Debra Bayer

Subbra 50

Customer Service Manager dbayer@envirotestlaboratories.com

08/24/2017

NYSDOH ELAP does not certify for all parameters. EnviroTest Laboratories does hold certification for all analytes where certification is offered by ELAP unless otherwise specified in the Certification Information section of this report Pursuant to NELAP, this report may not be reproduced, except in full, without written approval of the laboratory. EnviroTest Laboratories Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our laboratory. All questions regarding this report should be directed to the EnviroTest Customer Service Representative.

EnviroTest Laboratories, Inc. Certifications and Approvals: NYSDOH 10142, NJDEP NY015, CTDOPH PH-0554



METHOD SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-5 SDG Number: Clovewood

Descrip	otion	Lab Location	Method Preparation Method	
Matrix:	Water			
S: To	als by 200.7 ample Filtration otal Metals Digestion for 200.7 00 Series Drinking Water Prep Determination Step	EnvTest EnvTest EnvTest EnvTest	EPA 200.7 Rev 4.4 FILTRATION EPA 200.7 EPA 200.7/200.8	
20	Metals by 200.8 00 Series Drinking Water Prep Determination Step otal Metals Digestion for 200.8	EnvTest EnvTest EnvTest	EPA 200.8 Rev.5.4 EPA 200.7/200.8 EPA 200.8	
-	in Water by CVAA igestion for CVAA Mercury in Waters	EnvTest EnvTest	EPA 245.1 Rev.3.0 EPA 245.1	
Anions b	by Ion Chromatography	EnvTest	MCAWW 300.0	
Anions b	by Ion Chromatography	EnvTest	EPA 300.0 Rev. 2.1	
EPA 504	l.1 EDB	Pace	EPA 504.1	
EPA 505	Pesticide/PCB	Pace	EPA 505	
EPA 515	Chlorinated Acids	Pace	EPA 515	
Purgeab	le Organic Compounds in Water by GC/MS	EnvTest	EPA-DW 524.2	
EPA 525	5.2 Semivolatile Organics	Pace	EPA 525.2	
EPA 531	.1 Carbamate Pesticides in Drinki	Pace	EPA 531.1	
EPA 900	Series GA/GB/RA226/RA228/Gamma	Radios	EPA 900	
Jranium	ı	Radios	STL-STL EPA	
Heterotr	opic Plate Count	EnvTest	IDEXX SIMPLATE	
Odor, Th	nreshold Test	EnvTest	SM20 SM 2150B	
Alkalinity	y, Titration Method	EnvTest	SM21 SM 2320B-97,-11	
Corrosiv	ity LSI Calculation	EnvTest	SM20 SM 2330B	
Hardnes	s by Calculation	EnvTest	SM20 SM 2340B-97,-11	
Н		EnvTest	SM19 SM 4500 H+ B	
Nitrite by	y Colormetric	EnvTest	SM20 SM 4500 NO2 B	
	liform and Escherichia coli by Colilert - e/Absence	EnvTest	SMWW SM 9223	
Apparen	it Color	EnvTest	SM21 SM2120B-01,11	
Turbidity	1	EnvTest	SM21 SM2130B-01,11	
Total Dis	ssolved Solids (Dried at 180 °C)	EnvTest	SM21 SM2540C-97,11	
	, Total: Colorimetric Method yanide: Distillation	EnvTest EnvTest	SM21 SM4500 CN E-99 SM21 SM 4500 CN C	
General	Sub Contract Method	Pace	Subcontract	
General	Sub Contract Method	Radios	Subcontract	

METHOD SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-5 SDG Number: Clovewood

Description Lab Location Method Preparation Method

Lab References:

EnvTest = EnviroTest

Pace = Pace Analytical - Ormond Beach

Radios = Pace Analytical Services, Inc.

Method References:

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

IDEXX =

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM19 = "Standard Methods For The Examination Of Water And Wastewater", 19Th Edition, 1995."

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SM21 = "Standard Methods For The Examination Of Water And Wastewater", 21st Edition

SMWW = "Standard Methods for the Examination of Water and Wastewater"

STL-STL = Severn Trent Laboratories, St. Louis, Facility Standard Operating Procedure.

METHOD / ANALYST SUMMARY

Client: Leggette, Brashears & Graham, Inc. Job N

Job Number: 420-123595-5 SDG Number: Clovewood

Method	Analyst	Analyst ID
EPA-DW 524.2	Andersen, Eric C	ECA
EPA 200.7 Rev 4.4	Sirico, Derek	DS
EPA 200.8 Rev.5.4	Sirico, Derek	DS
EPA 245.1 Rev.3.0	Sirico, Derek	DS
SM20 SM 2340B-97,-11	Sirico, Derek	DS
MCAWW 300.0	Luis, Carlos	CL
EPA 300.0 Rev. 2.1	Luis, Carlos	CL
IDEXX SIMPLATE	O'Driscoll, Kate	КО
SM20 SM 2150B	O'Driscoll, Kate	КО
SM21 SM 2320B-97,-11	Tramantano, Matt	MT
SM20 SM 2330B	Cusack, Renee	RC
SM19 SM 4500 H+ B	O'Driscoll, Kate	КО
SM20 SM 4500 NO2 B	Grant, Ameya	AG
SMWW SM 9223	Grant, Ameya	AG
SM21 SM2120B-01,11	O'Driscoll, Kate	КО
SM21 SM2130B-01,11	O'Driscoll, Kate	КО
SM21 SM2540C-97,11	O'Driscoll, Kate	КО
SM21 SM4500 CN E-99	Osborne, Amy	AO

SAMPLE SUMMARY

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-5

SDG Number: Clovewood

			Date/Time	Date/Time
Lab Sample ID	Client Sample ID	Client Matrix	Sampled	Received
420-123595-5	C - 23	Drinking Water	07/13/2017 0800	07/13/2017 1000

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-5

Sdg Number: Clovewood

Client Sample ID: C - 23

 Lab Sample ID:
 420-123595-5
 Date Sampled:
 07/13/2017
 0800

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

524.2 Purgeable Organic Compounds in Water by GC/MS

Method: 524.2 Analysis Batch: 420-112453 Instrument ID: Agilent 7890A/5975C

Preparation: N/A Lab File ID: X071422.D

Dilution: 1.0 Initial Weight/Volume: 5 mL

Date Analyzed: 07/14/2017 2020 Final Weight/Volume: 5 mL

Date Prepared: N/A

Analyte	Result (ug/L) Qualifier	RL
1,1,1,2-Tetrachloroethane	<0.500	0.500
1,1,1-Trichloroethane	<0.500	0.500
1,1,2,2-Tetrachloroethane	<0.500	0.500
1,1,2-Trichloroethane	<0.500	0.500
1,1-Dichloroethane	<0.500	0.500
1,1-Dichloroethene	<0.500	0.500
1,1-Dichloropropene	<0.500	0.500
1,2,3-Trichlorobenzene	<0.500	0.500
1,2,3-Trichloropropane	<0.500	0.500
1,2,4-Trichlorobenzene	<0.500	0.500
1,2,4-Trimethylbenzene	<0.500	0.500
1,2-Dichloroethane	<0.500	0.500
1,2-Dichlorobenzene	<0.500	0.500
1,2-Dichloropropane	<0.500	0.500
1,3-Dichloropropane	<0.500	0.500
1,4-Dichlorobenzene	<0.500	0.500
2,2-Dichloropropane	<0.500	0.500
Benzene	<0.500	0.500
Bromobenzene	<0.500	0.500
Bromochloromethane	<0.500	0.500
Bromomethane	<0.500	0.500
n-Butylbenzene	<0.500	0.500
cis-1,2-Dichloroethene	<0.500	0.500
cis-1,3-Dichloropropene	<0.500	0.500
Carbon tetrachloride	<0.500	0.500
Chlorobenzene	<0.500	0.500
Chloroethane	<0.500	0.500
Chloromethane	<0.500	0.500
Dibromomethane	<0.500	0.500
Ethylbenzene	<0.500	0.500
Dichlorodifluoromethane	<0.500	0.500
Hexachlorobutadiene	<0.500	0.500
Isopropylbenzene	<0.500	0.500
p-Isopropyltoluene	<0.500	0.500
Methylene Chloride	<0.500	0.500
m-Xylene & p-Xylene	<1.00	1.00
Methyl tert-butyl ether	<0.500	0.500
o-Xylene	<0.500	0.500
Tetrachloroethene	<0.500	0.500
Toluene	<0.500	0.500
trans-1,2-Dichloroethene	<0.500	0.500
trans-1,3-Dichloropropene	<0.500	0.500
Trichloroethene	<0.500	0.500
tert-Butylbenzene	<0.500	0.500
to.t Daty.Donie	0.500	0.000

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-5

Sdg Number: Clovewood

Client Sample ID: C - 23

 Lab Sample ID:
 420-123595-5
 Date Sampled:
 07/13/2017
 0800

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

524.2 Purgeable Organic Compounds in Water by GC/MS

Method: 524.2 Analysis Batch: 420-112453 Instrument ID: Agilent 7890A/5975C

Preparation:N/ALab File ID:X071422.DDilution:1.0Initial Weight/Volume:5mL

Date Analyzed: 07/14/2017 2020 Final Weight/Volume: 5 mL

Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL
Trichlorofluoromethane	<0.500		0.500
Vinyl chloride	<0.500		0.500
Xylenes, Total	<1.50		1.50
Styrene	<0.500		0.500
sec-Butylbenzene	<0.500		0.500
1,3,5-Trimethylbenzene	<0.500		0.500
N-Propylbenzene	<0.500		0.500
1,3-Dichlorobenzene	<0.500		0.500
2-Chlorotoluene	<0.500		0.500
4-Chlorotoluene	<0.500		0.500
Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene	97		71 - 120
Toluene-d8 (Surr)	118		79 - 121
1,2-Dichloroethane-d4 (Surr)	124		70 - 128

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-5

Sdg Number: Clovewood

Client Sample ID: C - 23

 Lab Sample ID:
 420-123595-5
 Date Sampled:
 07/13/2017
 0800

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

200.7 Rev 4.4 ICP Metals by 200.7

Method: 200.7 Rev 4.4 Analysis Batch: 420-112479 Instrument ID: Thermo ICP

Preparation: 200.7/200.8 Dilution: 1.0

Date Analyzed: 07/17/2017 1450

Date Prepared: 07/17/2017 0925

Analysis Batch: 420-112479 Instrument ID: Thermo ICP
Prep Batch: 420-112493 Lab File ID: N/A

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte Result (ug/L) Qualifier RL 6700 60.0 Iron g Manganese 1730 10.0 g Sodium 4130 200 Zinc <20.0 20.0

200.7 Rev 4.4 ICP Metals by 200.7-Dissolved

Method: 200.7 Rev 4.4 Analysis Batch: 420-112597 Instrument ID: Thermo ICP

Preparation: 200.7 Dilution: 1.0

Date Analyzed: 07/19/2017 1851 Date Prepared: 07/17/2017 1505 Prep Batch: 420-112501 Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

 Analyte
 Result (ug/L)
 Qualifier
 RL

 Iron
 2970
 g
 60.0

 Manganese
 1740
 g
 10.0

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-5

Sdg Number: Clovewood

Client Sample ID: C - 23

 Lab Sample ID:
 420-123595-5
 Date Sampled:
 07/13/2017
 0800

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

200.8 Rev.5.4 ICPMS Metals by 200.8

Method: 200.8 Rev.5.4 Analysis Batch: 420-112457 Instrument ID: Perkin Elmer ELAN

Preparation: 200.7/200.8 Prep Batch: 420-112493 Lab File ID: N/A

Dilution: 1.0 Initial Weight/Volume: 50 mL

Date Analyzed: 07/17/2017 1332 Final Weight/Volume: 50 mL

Date Prepared: 07/17/2017 0925

Analyte		Result (ug/L)	Qualifier	RL
Lead		<1.00		1.00
Arsenic		2.03		1.40
Beryllium		<0.300		0.300
Cadmium		<1.00		1.00
Chromium		<7.00		7.00
Nickel		0.621		0.500
Antimony		<0.400		0.400
Thallium		<0.300		0.300
Barium		33.3		2.00
Selenium		<2.00		2.00
Made al	000 0 D 5 4	A D - t - b - 400 440500	In atomica and ID.	Darkin Elman El Al

Method: 200.8 Rev.5.4 Analysis Batch: 420-112536 Instrument ID: Perkin Elmer ELAN

Preparation: 200.8 Prep Batch: 420-112520 Lab File ID: N/A
Dilution: 1.0 Initial Weight/Volume: 50 mL

Dilution: 1.0 Initial Weight/Volume: 50 mL Date Analyzed: 07/18/2017 1737 Final Weight/Volume: 50 mL Date Prepared: 07/17/2017 1800

 Analyte
 Result (ug/L)
 Qualifier
 RL

 Silver
 <1.00</td>
 1.00

245.1 Rev.3.0 Mercury in Water by CVAA

Method: 245.1 Rev.3.0 Analysis Batch: 420-112511 Instrument ID: Perkin Elmer FIMS

Preparation: 245.1 Prep Batch: 420-112451 Lab File ID: N/A
Dilution: 1.0 Initial Weight/Volume: 25 mL

Date Analyzed: 07/18/2017 1217 Final Weight/Volume: 25 mL Date Prepared: 07/17/2017 1115

Analyte Result (ug/L) Qualifier RL

Mercury <0.200 0.200

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-5

Sdg Number: Clovewood

Client Sample ID: C - 23

 Lab Sample ID:
 420-123595-5
 Date Sampled:
 07/13/2017
 0800

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

SM 2340B-97,-11 Hardness by Calculation

Method: SM 2340B-97,-11

Preparation: N/A
Dilution: 1.0

Date Analyzed: 07/17/2017 1450

Date Prepared: N/A

Analysis Batch: 420-112535

Instrument ID: None Lab File ID: N/A

Initial Weight/Volume: Final Weight/Volume:

Analyte Result (mg/L) Qualifier RL

Calcium hardness as calcium carbonate 23.6 1.25

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-5

Sdg Number: Clovewood

Bio	logv
יייי	Og y

Client Sample ID: C - 23

Lab Sample ID: 420-123595-5 Client Matrix: Drinking Water Date Sampled: 07/13/2017 0800 Date Received: 07/13/2017 1000

AnalyteResultQualUnitsDilMethodColiform, TotalAbsentCFU/100mL1.0SM 9223

Anly Batch: 420-112380 Date Analyzed 07/13/2017 1510

Escherichia coli Absent CFU/100mL 1.0 SM 9223

Anly Batch: 420-112380 Date Analyzed 07/13/2017 1510

Analyte Result Qual Units RL Dil Method
Heterotrophic Plate Count <2.00 CFU/mL 2.00 1.0 SIMPLATE

Anly Batch: 420-112413 Date Analyzed 07/13/2017 1550

General Chemistry

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-123595-5

Sdg Number: Clovewood

General	Chemistry
General	CHEIIIISHV

Client Sample ID: C - 23

Lab Sample ID: 420-123595-5 Client Matrix: Drinking Water Date Sampled: 07/13/2017 0800 Date Received: 07/13/2017 1000

 Analyte
 Result
 Qual
 Units
 RL
 Dil
 Method

 Nitrate as N
 <0.250</td>
 mg/L
 0.250
 1.0
 300.0

Anly Batch: 420-112412 Date Analyzed 07/13/2017 1737

AnalyteResultQualUnitsDilMethodLangelier Index-1.96NONE1.0SM 2330B

Anly Batch: 420-112765 Date Analyzed 07/26/2017 1302

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-5

Sdg Number: Clovewood

General Chemistry

Client Sample ID: C - 23

 Lab Sample ID:
 420-123595-5
 Date Sampled:
 07/13/2017
 0800

 Client Matrix:
 Drinking Water
 Date Received:
 07/13/2017
 1000

Analyte	Result	Qual Units	RL	Dil	Method
Alkalinity	43.2 Anly Batch: 420-112669	mg/L Date Analyzed 07/21/2017 1730	5.00	1.0	SM 2320B-97,-11
Total Dissolved Solids	82.0 Anly Batch: 420-112602	mg/L Date Analyzed 07/20/2016 1700	5.00	1.0	SM2540C-97,11
Chloride	<1.50 Anly Batch: 420-112412	mg/L Date Analyzed 07/13/2017 1737	1.50	1.0	300.0 Rev. 2.1
Sulfate	11.2 Anly Batch: 420-112412	mg/L Date Analyzed 07/13/2017 1737	5.00	1.0	300.0 Rev. 2.1
Fluoride	<0.500 Anly Batch: 420-112412	mg/L Date Analyzed 07/13/2017 1737	0.500	1.0	300.0 Rev. 2.1
Cyanide, Total	<0.00500 Anly Batch: 420-112524	mg/L Date Analyzed 07/18/2017 1400	0.00500	1.0	SM4500 CN E-99
Apparent Color	Prep Batch: 75.0 Anly Batch: 420-112486	Date Prepared: 07/15/2017 1130 g Pt-Co Date Analyzed 07/13/2017 1749	2.00	1.0	SM2120B-01,11
pH@color measurement	6.74 Anly Batch: 420-112486	SU Date Analyzed 07/13/2017 1749	2.00	1.0	SM2120B-01,11
Turbidity	35.7 Anly Batch: 420-112420	g NTU Date Analyzed 07/13/2017 1814	0.100	1.0	SM2130B-01,11
Odor	1.00 Anly Batch: 420-112485	T.O.N. Date Analyzed 07/13/2017 1800	1.00	1.0	SM 2150B
Temp @ Odor Measurem	nent 60.0 Anly Batch: 420-112485	Degrees C Date Analyzed 07/13/2017 1800	5.00	1.0	SM 2150B
рН	6.74 Anly Batch: 420-112487	H SU Date Analyzed 07/13/2017 1751	0.200	1.0	SM 4500 H+ B
Temp @ pH Measuremer	nt 17.6 Anly Batch: 420-112487	Degrees C Date Analyzed 07/13/2017 1751	5.00	1.0	SM 4500 H+ B
Nitrite as N	<0.0100 Anly Batch: 420-112510	mg/L Date Analyzed 07/14/2017 1047	0.0100	1.0	SM 4500 NO2 B

DATA REPORTING QUALIFIERS

Client: Leggette, Brashears & Graham, Inc.

Job Number: Sdg Number: Clovewood

Lab Section	Qualifier	Description
Metals		
	g	Result fails applicable NYS drinking water standards
	Ü	
General Chemistry		
	g	Result fails applicable NYS drinking water standards
	Н	Sample was prepped or analyzed beyond the specified holding
General Chemistry		

Certification Information

Client: Leggette, Brashears & Graham, Inc. Job Number:

Sdg Number: Clovewood

The following analytes are Not Part of the ELAP scope of accreditation

Sulfur, Tungsten, Silicon, Bicarbonate Alkalinity, 7 Day BOD 5210C, 28 Day BOD, Soluble BOD, Carbon Dioxide, Carbonate Alkalinity, CBOD Soluble, Chlorine, Cyanide (WAD), Ferrous Iron, Ferric Iron, Total Nitrogen, Total Organic Nitrogen, Dissolved Oxygen, pH, Phenolphthalein Alkalinity, Solids (Fixed), Solids (Percent), Solids (Percent Moisture), Solids (Percent Volatile), Solids (Volatile Suspended), Temperature, TKN (Soluble), COD (Soluble), Total Inorganic Carbon, Volatile Acids as Acetic Acid, 2-Aminopyridine, 3-Picoline, 1-Methyl-2-pyrrilidinone, Aziridine, Dimethyl sulfoxide, 1-Chlorohexane, Iron Bacteria, Salmonella, & Sulfur Reducing Bacteria.

The following analytes are Not Part of ELAP Potable Water scope of accreditation

Cobalt (200.7, 200.8), Tin (200.7), Strontium (200.7), Gold (200.7), Platinum (200.7), Palladium (200.7), Titanium (200.7), Phosphorus (365.3), Nitrate-Nitrite (10-107-4-1C, 353.2), m-Xylene & p-Xylene (502.2, 524), Naphthalene (502.2), o-Xylene (502.2, 524), & Fecal Coliform (9222D).

The following analytes are Not Part of ELAP Solid and Hazardous Waste scope of accreditation

Ammonia (SM 4500NH3G), TKN (351.2), Phosphorus (365.3), 1,2-Dichloro-1,1,2-trifluoroethane (8260), & Chlorodifluoromethane (8260).

The following analytes are Not Part of ELAP Non Potable Water scope of accreditation

Dissolved Organic Carbon (5310C), Mecoprop (8151A), & MCPA (8151A).

Definitions and Glossary

Client: Leggette, Brashears & Graham, Inc. Job Number:

Sdg Number: Clovewood

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%R	Percent Recovery
DL, RA, RE	Indicates a Dilution, Reanalysis or Reextraction.
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit - an estimate of the minimum amount of a substance that an analytical process can reliably detect. A MDL is analyte- and matrix-specific and may be laboratory-dependent.
ND	Not detected at the reporting limit (or MDL if shown).
QC	Quality Control
RL	Reporting Limit - the minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.
RPD	Relative Percent Difference - a measure of the relative difference between two points

Page 16 of 18

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EnviroTest R	СНА	ΙN	0	F	CU	ST	O	YC			7	51	コヒ		سا		REPORT# (La	ab Use Only)
EnviroTest 🕮						_			1	しん	2	٦,	75	> ~~	5)		
Laboratories, Inc.	Lab Name Address & Phone				borato Avenu		vburg	h, Ne	w Yoı	k 125	50 84	5-562	-0890)		į		
PROJECT REFERENCE PROJECT NO. Clovewood	PROJECT LOCATION	N	MATRIX TYPE					··	REQL	JIRED	ANALY	YSES					PAGE 1 of	1
ENVIROTEST PROJECT MANAGER Debra Bayer P.O. NUMBER	TOWN		ГΤ	Т	ž	호	hio.	hio.	503	Cid	Sig.	Stic	Ą	gie ei	ijŗ	Sag		
CLIENT (SITE) PM CLIENT PHONE	CLIENT FAX				MPA C/G Kit	Vials	T E	Ten	Maz	itric /	io(liq	r Plastic	Ē	ic St	Plastic Nitric	s Ung		TURNAROUND TIME
LBG, Inc. 203-929-8555	CLICIALIAN	CATE	ter) Indicate		MP,	40ml Vials HC	40ml Sodium Thio	250ml Amber Sodium Thio	Liter Amber HCI/Na2SO3	250ml Plastic Nitric Acid	40ml Mon/Sod.Thio(liquid	Liter	250ml Plastic Sodium Hyd	25ml Plastic Sterile	Liter Plas	40ml Vials Unpres	NORMAL	2
CLIENT NAME Stacy Stieber		(G) IND	ste Water)		'		4	Ami	er An	P Im	Mon		E E	125	-	4	QUICK	
CLIENT ADDRESS		R GRAB	or W (Wa	a l				250m	ij	25.1	40ml		250m				VERBAL.	
4 Research Drive, Suite 204, Shelton, CT 06484 COMPANY CONTRACTING THIS WORK (Fapplicable):	1	DSITE (C) O	D (Drinking Water) or W (Waste	OH SEMIST		<u> </u>										-	#OF COOLERS	
SAMPLE SAMPLE IDENTIFICATION OF THE SAMPLE SAMPLE IDENTIFICATION OF THE SA	FION	COMPC	0 G	OTHER			٨	IUMBE	ROF	CONT	AINER	S SUB	MITTE	£D				REMARKS
71317 800 (23		٦	D	1		3	2	1	2	1	2	4	1	2	5	2	Table 8B (Sb,As	s,Ba,Be,Cd,Cr,Cn,Hg,Ni
111111111111111111111111111111111111111		\prod	1	1													Se,TI,F)	
		П	Π														Table 8C (NO3,	NO2)
		\prod		T	2-Liter	r Ambei	r Unpre	98.									Table 8D (Cl,Fe	,Mn,Ag,Na,SO4,Zn,Odor,Color)
					1-250	ml Amb	er Unp	res.									524.2 (POC,MTE	BE,Vinyl Chloride)
			\prod	\mathbb{L}	3-250	ıml Plas	tic Unr	ores. (n	o air)								SOCs (504,508,	515,525,531,547,548,549,Dloxin)
			\prod	\mathbb{L}	2-40m	nl Ambe	r Sodiı	um Thi	D.								Additional Test	s (Total coliform
			\prod	\mathbb{L}	1-500	ıml Amb	er Soc	lium Th	io.	<u> </u>							thru Zinc)	
			\prod	L	1-Lite	r Ambe	r Plasti	ic Sodi	um Thi	o.&H2	SO4						Radio(Gross Al	pha/Beta,Radium-226/228,Uranium)
			\prod	I	2-Lite	r Ambe	r Sodiı	ım Thic).								Radon	
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RELINQUISITED BY: (STOTATIONE) COMPANY	DATE 7/13/17	TIME	143	3_		EIVED I								COMP			DATE	TIME
SAMPHENEY: (SIGNETURE) COMPANY /	7/18/17	$-\mathbf{Q}$	500)		EIVED I								COMP			DATE	TIME
RELINQUISHED BY (SIGNATURE) COMPANY	DA/TE /	TIME			RECE	EIVED I	BY: (SI	ĞNAT	URE)					COMP	ĀNY		DATE	TIME
SUBCONTACT: PACE-SOCs, Radio, Radon; ASI-M											1							
RECEIVED FOR LABORATORY BY: DATE TIME 7/13/17 1193	CUSTODY INTACT YES NO	Coole				HATO		MARK	S:	ICE_	p	Н	_ CL2		Revel	wed by		

LOGIN SAMPLE RECEIPT CHECK LIST

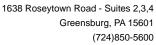
Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-123595-5

SDG Number: Clovewood

Login Number: 123595

Question	T/F/NA	Comment
Samples were collected by ETL employee as per SOP-SAM-1	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is recorded.	True	3.5C
Cooler Temp. is within method specified range. (0-6 C PW, 0-8 C NPW, or BAC <10 $$ C	True	
If false, was sample received on ice within 6 hours of collection.	NA	
Based on above criteria cooler temperature is acceptable.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	False	рН
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	





August 03, 2017

Ms. Debra Bayer EnviroTest Laboratories, Inc. 315 Fullerton Avenue Newburgh, NY 12550

RE: Project: 42001269

Pace Project No.: 30224097

Dear Ms. Bayer:

Enclosed are the analytical results for sample(s) received by the laboratory on July 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins

Suguely Cellins

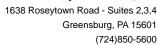
jacquelyn.collins@pacelabs.com

(724)850-5612 **Project Manager**

Enclosures

cc: Janine Rader, EnviroTest Laboratories, Inc.







CERTIFICATIONS

Project: 42001269
Pace Project No.: 30224097

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683 Georgia Certification #: C040

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133 Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification Missouri Certification #: 235 Nebraska Certification #: NE-05-29-14 Nevada Certification #: PA014572015-1 New Hampshire/TNI Certification #: 2976 New Jersey/TNI Certification #: PA 051 New Mexico Certification #: PA01457 New York/TNI Certification #: 10888

Montana Certification #: Cert 0082

North Carolina Certification #: 42706 North Dakota Certification #: R-190 Oregon/TNI Certification #: PA200002 Pennsylvania/TNI Certification #: 65-00282 Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282

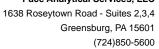
South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

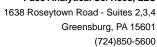




SAMPLE SUMMARY

Project: 42001269
Pace Project No.: 30224097

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30224097001	C-23 (420-123595-5)	Drinking Water	07/13/17 08:00	07/14/17 10:20

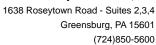




SAMPLE ANALYTE COUNT

Project: 42001269
Pace Project No.: 30224097

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30224097001	C-23 (420-123595-5)	SM7500RnB-07	NEG	1
		EPA 900.0	NEG	2
		EPA 903.1	WRR	1
		EPA 904.0	VAL	1
		ASTM D5174-97	RMK	1

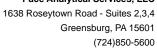




ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 42001269
Pace Project No.: 30224097

Sample: C-23 (420-123595-5) PWS:	Lab ID: 30224 Site ID:	Collected: 07/13/17 08:00 Sample Type:	Received:	07/14/17 10:20	Matrix: Drinking	Water
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radon	SM7500RnB-07	78.3 ± 30.0 (46.0) C:NA T:NA	pCi/L	07/15/17 05:27	7 10043-92-2	
Gross Alpha	EPA 900.0	0.246 ± 0.830 (2.08) C:NA T:NA	pCi/L	07/24/17 08:36	12587-46-1	
Gross Beta	EPA 900.0	-0.028 ± 0.682 (1.70) C:NA T:NA	pCi/L	07/24/17 08:36	6 12587-47-2	
Radium-226	EPA 903.1	0.439 ± 0.317 (0.359) C:NA T:106%	pCi/L	07/26/17 12:51	1 13982-63-3	
Radium-228	EPA 904.0	0.249 ± 0.281 (0.596) C:78% T:91%	pCi/L	07/27/17 11:15	5 15262-20-1	
Total Uranium	ASTM D5174-97	0.084 ± 0.005 (0.193) C:NA T:NA	ug/L	08/03/17 16:21	1 7440-61-1	





Project:

42001269

Pace Project No.:

30224097

QC Batch:
QC Batch Method:

265143

ASTM D5174-97

Analysis Method:

ASTM D5174-97

Analysis Description:

D5174.97 Total Uranium KPA

Associated Lab Samples:

30224097001

METHOD BLANK: 1306496

Matrix: Water

Associated Lab Samples:

30224097001

Parameter

Act ± Unc (MDC) Carr Trac

Units ug/L Analyzed

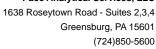
Qualifiers

Total Uranium

0.064 ± 0.004 (0.193) C:NA T:NA

08/03/17 11:33

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project:

42001269

Pace Project No.:

30224097

QC Batch:

265053

Analysis Method:

SM7500RnB-07

QC Batch Method: SM7500RnB-07

Analysis Description:

7500Rn B Radon

Associated Lab Samples: METHOD BLANK: 1305441

30224097001

Matrix: Water

Associated Lab Samples:

30224097001

Parameter

Act ± Unc (MDC) Carr Trac

Units pCi/L Analyzed

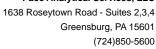
Qualifiers

Radon

2.8 ± 18.8 (32.7) C:NA T:NA

07/15/17 02:40

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project:

42001269

Pace Project No.:

30224097

QC Batch:

265152

Analysis Method:

EPA 903.1

QC Batch Method:

EPA 903.1

Analysis Description:

903.1 Radium-226

Associated Lab Samples:

30224097001

Matrix: Water

Associated Lab Samples:

METHOD BLANK: 1306510

30224097001

Parameter

Act ± Unc (MDC) Carr Trac

Units pCi/L Analyzed

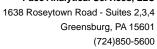
Qualifiers

Radium-226

0.159 ± 0.312 (0.570) C:NA T:95%

07/26/17 12:14

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project: 42001269
Pace Project No.: 30224097

QC Batch: 265148 Analysis Method: EPA 900.0

QC Batch Method: EPA 900.0 Analysis Description: 900.0 Gross Alpha/Beta

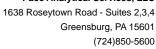
Associated Lab Samples: 30224097001

METHOD BLANK: 1306505 Matrix: Water

Associated Lab Samples: 30224097001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	-0.333 ± 0.399 (1.52) C:NA T:NA	pCi/L	07/24/17 08:35	
Gross Beta	-0.362 ± 0.578 (1.62) C:NA T:NA	pCi/L	07/24/17 08:35	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project:

42001269

Pace Project No.:

30224097

QC Batch:

265158

Analysis Method:

EPA 904.0

QC Batch Method:

EPA 904.0

Analysis Description:

904.0 Radium 228

Associated Lab Samples:

30224097001

METHOD BLANK: 1306521

Matrix: Water

Associated Lab Samples:

30224097001

Parameter

Act ± Unc (MDC) Carr Trac

Units pCi/L Analyzed

Qualifiers

Radium-228

 $0.0810 \pm 0.316 \quad (0.717) \text{ C:}75\% \text{ T:}85\%$

07/27/17 11:14

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: 42001269
Pace Project No.: 30224097

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Date: 08/03/2017 04:46 PM

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Enviro Test Laboratories, Inc. 315 Fullerton Avenue Newburgh, NY 12550 Phone (845) 562-0890 Fax (845) 562-0841

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315 Fullerton Avenue Newburgh, NY 12550		Chai	Chain of Custody Record	ustody	/ Reco	2				EnviroTest 🗠	,
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Client Contact: Shipping/Receiving	Phone:	2010k		ivirotestlabo	E-Mail: dbayer@envirotestlaboratories.com				Page: Page 1 of 1		_
vices, Inc.	The second secon				Analy	Analysis Reguested	ited		STL Job #: 420-173595.5		T
Address: 1638 Roseytown Rd,Suites 2,3,4, ,	Due Date Requested: 7/27/2017								Preservation Codes	IΧ	olonigsenessesen
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State, Zlp. PA, 15601				122 A <i>F</i>					D. Nitric Acid E - NaHSO4	O - ASNBOZ P - Na2O4S Q - Na2SO3	
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ested: I, II, III, IV, Other (specify)		100000000000000000000000000000000000000	Ϋ́	ecial Instru	ctions/QC R	Special Instructions/QC Requirements:	Disposal by Lab	Ar	Archive For	Months	
Empty Kit Relinquished by:	Date:		Time:				Method of Shipment:	nent:			Ī
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Custody Seal on Cooler/Box Pr	'esant' Tyes		ブ no	Se	als Intact:	☐ yes	no				
Thermometer Head	8	Tvp	e of lo	:0; (W	/et Blue	None	~. °C Final	Temn'	3 4	-	• C
		<u>3.5</u>		Co	rrection Fa	ctor: O	<u>∵</u> °C Final				
Temp should be above freezing to 6°	3						Date and	nitials of	perso	n examl	ning
	•	Yes	s No	o I N/	Al		content	: <u>Zet</u>	171	-11.	
Comments:		17	1	+"	1.						
Chain of Cuslody Present:	<u>-</u>	1	-		2,						
Chain of Custody Filled Out:		+/	+-	+	3,						
Chain of Custody Relinquished:		+	17	+	4.						
Sampier Name & Signature on CC)C:	17	 ′-	+	5.						
Sample Labels match COC:				<u> </u>	- °'						
-Includes dale/lime/iD	Matrix:	<u>~1</u>	T	T	<u> </u>						
Samples Arrived within Hold Time:		-			6,	<u>·</u>					
Short Hold Time Analysis (<72hr	remaining):	1	<u> </u>	-	 7.						
Rush Turn Around Time Reques	ted:	 	/_	4	8.		·				
ufficient Volume:		14		↓	9.						
orrect Containers Used:		/		<u> </u>	_ 10.						
-Pace Containers Used:		<u> </u>	1	 							
ontainers intact:		1		2020	11.						
rthophosphate fleld filtered_					12.						
rganic Samples checked for d	echlorination:			1	13.						
llered volume received for Dissolv	ed tests			/	14.						
containers have been checked for pr	eservation.	7			15.						
i containers needing preservation are mpliance with EPA recommendation.	jound to be in	/					D A Mars of			·	
ceptions: VOA, coliform, TOC, C	&G, Phenolics				initial when a completed Lot # of adda		Date/lime of preservation	<u> </u>			
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adspace in VOA Vlals (>6mm):				1	16.						
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d Aqueous Samples Screenéd >	· 0,5 mrem/hr		/		initial when completed:	74	Dale:	4/17			
ent Notification/ Resolution:					_						
Person Contacled:			0	Date/T	lme:		Contacled	В <u>у:</u>			
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August 07, 2017

Ron Bayer EnviroTest Laboratories Inc. 315 Fullerton Avenue Newburgh, NY 12550

RE: Project: LBG,Inc 42001269

Pace Project No.: 35324057

Dear Ron Bayer:

Enclosed are the analytical results for sample(s) received by the laboratory on July 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Bo Garcia bo.garcia@pacelabs.com (386)672-5668 Project Manager

Enclosures

cc: Debra Bayer, EnviroTest Laboratories Inc. Renee Cusack, EnviroTest Laboratories Inc. Laura Marciano, EnviroTest Laboratories Inc. Janine Rader, EnviroTest Laboratories Inc. Meredith Ruthven, EnviroTest Laboratories Inc.



Ormond Beach, FL 32174

(386)672-5668





CERTIFICATIONS

Project: LBG,Inc 42001269

Pace Project No.: 35324057

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174

Alabama Certification #: 41320 Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

Florida Certification #: E83079 Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Louisiana Certification #: FL NELAC Reciprocity Louisiana Environmental Certificate #: 05007

Maryland Certification: #346 Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236 Montana Certification #: Cert 0074 Nebraska Certification: NE-OS-28-14

Nevada Certification: FL NELAC Reciprocity

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity Virginia Environmental Certification #: 460165

Wyoming Certification: FL NELAC Reciprocity

West Virginia Certification #: 9962C Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

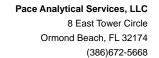
Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158 Pennsylvania Certification #: 68-00350 Connecticut Certification #: PH-0435 Maryland Certification #: 208

Rhode Island Certification #: LAO00340 Massachusetts Certification #: M-NY026 New Hampshire Certification #: 2987





SAMPLE SUMMARY

Project: LBG,Inc 42001269

Pace Project No.: 35324057

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35324057001	C-23	Drinking Water	07/13/17 08:00	07/14/17 11:10



SAMPLE ANALYTE COUNT

Project: LBG,Inc 42001269

Pace Project No.: 35324057

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35324057001	C-23	EPA 504.1	BP1	2	PASI-O
		EPA 505	MMR	3	
		EPA 508.1	LJM	18	PASI-O
		EPA 515.3	LJM	8	PASI-O
		EPA 531.1	WFH	9	PASI-O
		EPA 547	NMB	1	PASI-O
		EPA 549.2	NMB	1	PASI-O
		EPA 525.2	NS1	7	PASI-O
		EPA 548.1	JDT	1	PASI-O



ANALYTICAL RESULTS

Project: LBG,Inc 42001269

Pace Project No.: 35324057

Date: 08/07/2017 12:31 PM

Sample: C-23	Lab ID:	35324057001	Collecte	d: 07/13/1	7 08:00	Received: 07/	14/17 11:10 Ma	atrix: Drinking	Water
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504.1 GCS EDB and DBCP	Analytical	Method: EPA 5	04.1 Prepa	aration Meth	nod: EP/	A 504.1			
1,2-Dibromo-3-chloropropane 1,2-Dibromoethane (EDB)	<0.0055 <0.0064	ug/L ug/L	0.017 0.0086	0.0055 0.0064	1 1	07/18/17 07:15 07/18/17 07:15	07/18/17 18:37 07/18/17 18:37		
505 GCS Pesticides/PCBs	Analytical	Method: EPA 5	05 Prepara	ation Metho	d: EPA	505			
Aldrin Surrogates	<0.025	ug/L	0.025	0.025	1	07/20/17 16:38	07/20/17 23:03	309-00-2	
Tetrachloro-m-xylene (S)	105	%.	30-150		1	07/20/17 16:38	07/20/17 23:03	877-09-8	
Decachlorobiphenyl (S)	83	%.	30-150		1	07/20/17 16:38	07/20/17 23:03	2051-24-3	
508.1 GCS Pesticides	Analytical	Method: EPA 5	08.1 Prepa	aration Meth	nod: EP/	A 508.1			
Alachlor	<0.034	ug/L	0.19	0.034	1	07/24/17 10:15	07/28/17 10:58	15972-60-8	
Atrazine	<0.061	ug/L	0.096	0.061	1	07/24/17 10:15	07/28/17 10:58	1912-24-9	L2
gamma-BHC (Lindane)	<0.0029	ug/L	0.019	0.0029	1	07/24/17 10:15			
Butachlor	<0.026	ug/L	0.096	0.026	1	07/24/17 10:15	07/28/17 10:58	23184-66-9	
Chlordane (Technical)	<0.045	ug/L	0.19	0.045	1	07/24/17 10:15	07/28/17 10:58	57-74-9	
Dieldrin	<0.018	ug/L	0.096	0.018	1	07/24/17 10:15	07/28/17 10:58	60-57-1	
Endrin	<0.0067	ug/L	0.0096	0.0067	1	07/24/17 10:15	07/28/17 10:58	72-20-8	
Heptachlor	<0.012	ug/L	0.039	0.012	1	07/24/17 10:15	07/28/17 10:58	76-44-8	
Heptachlor epoxide	<0.0029	ug/L	0.019	0.0029	1	07/24/17 10:15	07/28/17 10:58	1024-57-3	
Hexachlorobenzene	<0.018	ug/L	0.096	0.018	1	07/24/17 10:15	07/28/17 10:58	118-74-1	
Hexachlorocyclopentadiene	< 0.031	ug/L	0.096	0.031	1	07/24/17 10:15	07/28/17 10:58	77-47-4	
Methoxychlor	< 0.049	ug/L	0.096	0.049	1	07/24/17 10:15	07/28/17 10:58	72-43-5	
Metolachlor	< 0.045	ug/L	0.096	0.045	1	07/24/17 10:15	07/28/17 10:58	51218-45-2	
PCB, Total	<0.077	ug/L	0.096	0.077	1	07/24/17 10:15	07/28/17 10:58	1336-36-3	
Propachlor	< 0.029	ug/L	0.096	0.029	1	07/24/17 10:15	07/28/17 10:58	1918-16-7	
Simazine	< 0.066	ug/L	0.067	0.066	1	07/24/17 10:15	07/28/17 10:58	122-34-9	L2
Toxaphene	<0.59	ug/L	0.96	0.59	1	07/24/17 10:15	07/28/17 10:58	8001-35-2	
Surrogates		_							
Decachlorobiphenyl (S)	83	%	70-130		1	07/24/17 10:15	07/28/17 10:58	2051-24-3	
515.3 Chlorinated Herbicides	Analytical	Method: EPA 5	15.3 Prepa	aration Meth	nod: EP/	A 515.3			
2,4-D	<0.081	ug/L	0.10	0.081	1	07/20/17 09:35	07/22/17 08:11	94-75-7	
Dalapon	<0.89	ug/L	1.0	0.89	1	07/20/17 09:35	07/22/17 08:11	75-99-0	
Dicamba	<0.067	ug/L	0.10	0.067	1	07/20/17 09:35	07/22/17 08:11	1918-00-9	L1
Dinoseb	<0.16	ug/L	0.20	0.16	1	07/20/17 09:35			
Pentachlorophenol	<0.030	ug/L	0.040	0.030	1	07/20/17 09:35	07/22/17 08:11		
Picloram	< 0.094	ug/L	0.10	0.094	1		07/22/17 08:11		
2,4,5-TP (Silvex)	<0.16	ug/L	0.20	0.16	1		07/22/17 08:11		
Surrogates	-	Ü							
2,4-DCAA (S)	95	%	70-130		1	07/20/17 09:35	07/22/17 08:11	19719-28-9	
531.1 HPLC Carbamates	Analytical	Method: EPA 5	31.1						
Aldicarb	<0.64	ug/L	2.0	0.64	1		07/18/17 17:42	116-06-3	
Aldicarb sulfone	<0.37	ug/L	2.0	0.37	1		07/18/17 17:42	1646-88-4	
Aldicarb sulfoxide	<0.59	ug/L	2.0	0.59	1		07/18/17 17:42	1646-87-3	
Carbofuran	<0.32	ug/L	2.0	0.32	1		07/18/17 17:42	1563-66-2	



ANALYTICAL RESULTS

Project: LBG,Inc 42001269

Pace Project No.: 35324057

Date: 08/07/2017 12:31 PM

Sample: C-23	Lab ID:	35324057001	Collected	d: 07/13/17	08:00	Received: 07/	/14/17 11:10 Ma	atrix: Drinking	Water
Parameters	Results	Units	PQL _	MDL	DF	Prepared	Analyzed	CAS No.	Qual
531.1 HPLC Carbamates	Analytical	Method: EPA 5	31.1						
3-Hydroxycarbofuran	<0.45	ug/L	2.0	0.45	1		07/18/17 17:42	16655-82-6	
Methomyl	<0.57	ug/L	2.0	0.57	1		07/18/17 17:42	16752-77-5	
Oxamyl	<0.55	ug/L	2.0	0.55	1		07/18/17 17:42	23135-22-0	
Carbaryl	<0.27	ug/L	2.0	0.27	1		07/18/17 17:42	63-25-2	
Surrogates									
BDMC (S)	103	%	80-120		1		07/18/17 17:42		
547 HPLC Glyphosate	Analytical	Method: EPA 5	47						
Glyphosate	<4.2	ug/L	6.0	4.2	1		07/20/17 05:28		
549.2 HPLC Paraquat Diquat	Analytical	Method: EPA 5	49.2 Prepa	aration Meth	od: EP	A 549.2			
Diquat	<0.30	ug/L	0.40	0.30	1	07/19/17 11:00	07/20/17 02:43	85-00-7	
525.2 Base Neutral Extractable	Analytical	Method: EPA 5	25.2 Prepa	aration Meth	od: EP	A 525.2			
Benzo(a)pyrene	0.032J	ug/L	0.096	0.013	1	07/25/17 10:15	07/25/17 17:21	50-32-8	
bis(2-Ethylhexyl)adipate	<0.37	ug/L	1.5	0.37	1	07/25/17 10:15	07/25/17 17:21	103-23-1	
bis(2-Ethylhexyl)phthalate	<0.48	ug/L	1.9	0.48	1	07/25/17 10:15	07/25/17 17:21	117-81-7	
Metribuzin	<0.14	ug/L	0.29	0.14	1	07/25/17 10:15	07/25/17 17:21	21087-64-9	
Surrogates									
1,3-Dimethyl-2-nitrobenzene(S)	106	%	70-130		1	07/25/17 10:15	07/25/17 17:21		
Perylene-d12 (S)	101	%	70-130		1	07/25/17 10:15	07/25/17 17:21	1520963	
Triphenylphosphate (S)	93	%	70-130		1	07/25/17 10:15	07/25/17 17:21	115-86-6	
548.1 GCS Endothall	Analytical	Method: EPA 5	48.1 Prepa	aration Meth	od: EP	A 548.1			
Endothall	<4.3	ug/L	9.0	4.3	1	07/19/17 17:00	07/25/17 00:08		L2,L5



Project: LBG,Inc 42001269

Pace Project No.: 35324057

Date: 08/07/2017 12:31 PM

QC Batch: 381535 Analysis Method: EPA 531.1

QC Batch Method: EPA 531.1 Analysis Description: 531.1 HPLC Carbamate

Associated Lab Samples: 35324057001

METHOD BLANK: 2070180 Matrix: Water

Associated Lab Samples: 35324057001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
3-Hydroxycarbofuran	ug/L	<0.45	2.0	0.45	07/18/17 12:36	
Aldicarb	ug/L	< 0.64	2.0	0.64	07/18/17 12:36	
Aldicarb sulfone	ug/L	< 0.37	2.0	0.37	07/18/17 12:36	
Aldicarb sulfoxide	ug/L	< 0.59	2.0	0.59	07/18/17 12:36	
Carbaryl	ug/L	< 0.27	2.0	0.27	07/18/17 12:36	
Carbofuran	ug/L	< 0.32	2.0	0.32	07/18/17 12:36	
Methomyl	ug/L	< 0.57	2.0	0.57	07/18/17 12:36	
Oxamyl	ug/L	< 0.55	2.0	0.55	07/18/17 12:36	
BDMC (S)	%	120	80-120		07/18/17 12:36	

LABORATORY CONTROL SAMPLE:	2070181					
-		Spike	LCS	LCS	% Rec	0 ""
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
3-Hydroxycarbofuran	ug/L	10	10.3	103	80-120	
Aldicarb	ug/L	10	11.2	112	80-120	
Aldicarb sulfone	ug/L	10	10.9	109	80-120	
Aldicarb sulfoxide	ug/L	10	12.0	120	80-120	
Carbaryl	ug/L	10	12.0	120	80-120	
Carbofuran	ug/L	10	11.7	117	80-120	
Methomyl	ug/L	10	10.6	106	80-120	
Oxamyl	ug/L	10	11.8	118	80-120	
BDMC (S)	%			118	80-120	

MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	TE: 20701	82		2070183							
Parameter	3. Units	5323850001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec	RPD	Max RPD	Qual
3-Hydroxycarbofuran	ug/L	0.45U	10	10	10	10.2	100	102	80-120		20	
Aldicarb	ug/L	0.64U	10	10	10.5	10.3	105	103	80-120		20	
Aldicarb sulfone	ug/L	0.37U	10	10	9.5	9.8	95	98	80-120	4	20	
Aldicarb sulfoxide	ug/L	0.59U	10	10	11.2	11.0	112	110	80-120	2	20	
Carbaryl	ug/L	0.27U	10	10	12.0	11.5	120	115	80-120	4	20	
Carbofuran	ug/L	0.32U	10	10	11.3	10.5	113	105	80-120	7	20	
Methomyl	ug/L	0.57U	10	10	10.5	11.1	105	111	80-120	6	20	
Oxamyl	ug/L	0.55U	10	10	10.2	10.0	102	100	80-120	2	20	
BDMC (S)	%						103	98	80-120			

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LBG,Inc 42001269 Project:

Pace Project No.: 35324057

QC Batch: 382091

QC Batch Method: **EPA 547**

Analysis Method:

EPA 547

Associated Lab Samples:

35324057001

Analysis Description:

547 HPLC Glyphosate

2073233 METHOD BLANK:

Matrix: Water

Associated Lab Samples:

35324057001

Blank

Reporting Limit

Parameter

Units

Result

MDL

Analyzed

Qualifiers

Glyphosate

Glyphosate

ug/L

Units

ug/L

35324897001

35324066001

Result

Result

0.0042U

mg/L

Units

ug/L

Units

ug/L

<4.2

6.0

4.2 07/20/17 02:06

LABORATORY CONTROL SAMPLE: Parameter

2073234

Spike Conc.

50

LCS Result

LCS % Rec

105

% Rec Limits

MS

% Rec

96

Qualifiers

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

2073235

2073236

52.3

MS

80-120

Max

Parameter

MS Spike Conc.

MSD Spike Conc.

MSD Result Result

48.2

MSD % Rec

97

% Rec Limits RPD

RPD Qual 80-120 0 30

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

2073237

<4.2

MS MSD

50

50

2073238 MSD

MSD

% Rec

Max

Qual

Parameter

Glyphosate

Spike

Spike

MS Result

MS % Rec

% Rec

Limits

RPD RPD

3

Glyphosate

Conc. 50 Conc. 50

51.2

Result 49.9

48.4

102

100

80-120

30

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REPORT OF LABORATORY ANALYSIS

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Project: LBG,Inc 42001269

Pace Project No.: 35324057

QC Batch: 381399 EPA 504.1 Analysis Method:

EPA 504.1

QC Batch Method:

Analysis Description: 504 EDB DBCP

Associated Lab Samples: 35324057001

METHOD BLANK: 2069376

Matrix: Water

Associated Lab Samples:

Date: 08/07/2017 12:31 PM

35324057001

Blank Reporting

Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
1,2-Dibromo-3-chloropropane	ug/L	<0.0064	0.020	0.0064	07/18/17 13:43	
1,2-Dibromoethane (EDB)	ug/L	< 0.0075	0.010	0.0075	07/18/17 13:43	

LABORATORY CONTROL SAMPLE &	LCSD: 2069377		20	70238						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
1,2-Dibromo-3-chloropropane	ug/L	.25	0.27	0.24	109	96	70-130	12	40	
1,2-Dibromoethane (EDB)	ug/L	.25	0.29	0.25	116	101	70-130	13	40	

MATRIX SPIKE & MATRIX SP	IKE DUPLICA	TE: 20702	39		2070240							
			MS	MSD								
	3	5324127010	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,2-Dibromo-3- chloropropane	ug/L	<0.0055	.44	.44	0.64	0.63	146	143	65-135	2	40	M1
1,2-Dibromoethane (EDB)	ug/L	<0.0064	.44	.44	0.64	0.63	146	145	65-135	1	40	M1

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Project: LBG,Inc 42001269

Pace Project No.: 35324057

QC Batch: 32255

QC Batch Method: EPA 505

Analysis Method:

EPA 505

Analysis Description:

505 GCS Pesticides

Associated Lab Samples: 35324057001

Parameter

METHOD BLANK: 149103

Matrix: Water

Associated Lab Samples:

Decachlorobiphenyl (S)

Tetrachloro-m-xylene (S)

Date: 08/07/2017 12:31 PM

Aldrin

es: 35324057001

Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
ug/L	<0.025	0.025	0.025	07/20/17 18:40	
%.	75	30-150		07/20/17 18:40	
%.	85	30-150		07/20/17 18:40	

LABORATORY CONTROL SAMPLE:	149104					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	.048	0.047	98	70-130	
Decachlorobiphenyl (S)	%.			95	30-150	
Tetrachloro-m-xylene (S)	%.			94	30-150	

LABORATORY CONTROL SAMPLE:	149105					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	.0095	<0.025	97	70-130	
Decachlorobiphenyl (S)	%.			89	30-150	
Tetrachloro-m-xylene (S)	%.			95	30-150	

MATRIX SPIKE SAMPLE:	149106						
		7024421001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Aldrin	ug/L	<0.025	.095	0.092	96	65-135	
Decachlorobiphenyl (S)	%.				75	30-150	
Tetrachloro-m-xylene (S)	%.				97	30-150	

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Project: LBG,Inc 42001269

Pace Project No.: 35324057

Date: 08/07/2017 12:31 PM

QC Batch: 382602 Analysis Method: EPA 508.1

QC Batch Method: EPA 508.1 Analysis Description: 508 GCS Pesticide

Associated Lab Samples: 35324057001

METHOD BLANK: 2076395 Matrix: Water

Associated Lab Samples: 35324057001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Alachlor	ug/L	<0.035	0.20	0.035	07/28/17 05:11	
Atrazine	ug/L	< 0.063	0.10	0.063	07/28/17 05:11	
Butachlor	ug/L	< 0.027	0.10	0.027	07/28/17 05:11	
Chlordane (Technical)	ug/L	< 0.047	0.20	0.047	07/28/17 05:11	
Dieldrin	ug/L	< 0.019	0.10	0.019	07/28/17 05:11	
Endrin	ug/L	< 0.0070	0.010	0.0070	07/28/17 05:11	
gamma-BHC (Lindane)	ug/L	< 0.0030	0.020	0.0030	07/28/17 05:11	
Heptachlor	ug/L	< 0.012	0.040	0.012	07/28/17 05:11	
Heptachlor epoxide	ug/L	< 0.0030	0.020	0.0030	07/28/17 05:11	
Hexachlorobenzene	ug/L	< 0.019	0.10	0.019	07/28/17 05:11	
Hexachlorocyclopentadiene	ug/L	< 0.032	0.10	0.032	07/28/17 05:11	
Methoxychlor	ug/L	< 0.051	0.10	0.051	07/28/17 05:11	
Metolachlor	ug/L	< 0.047	0.10	0.047	07/28/17 05:11	
Propachlor	ug/L	< 0.030	0.10	0.030	07/28/17 05:11	
Simazine	ug/L	< 0.069	0.070	0.069	07/28/17 05:11	
Toxaphene	ug/L	<0.61	1.0	0.61	07/28/17 05:11	
Decachlorobiphenyl (S)	%	93	70-130		07/28/17 05:11	

ABORATORY CONTROL SAMPLE:	2076396					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
achlor	ug/L		0.93	93	70-130	
zine	ug/L	1.2	< 0.063	0	70-130 L	_2
chlor	ug/L	.5	0.50	99	70-130	
rdane (Technical)	ug/L		< 0.047			
drin	ug/L	.5	0.45	90	70-130	
rin	ug/L	.05	0.044	87	70-130	
na-BHC (Lindane)	ug/L	.1	0.090	90	70-130	
achlor	ug/L	.2	0.17	86	70-130	
achlor epoxide	ug/L	.1	0.10	100	70-130	
chlorobenzene	ug/L	.5	0.63	125	70-130	
chlorocyclopentadiene	ug/L	.5	0.78	155	70-130	
oxychlor	ug/L	.5	0.55	110	70-130	
lachlor	ug/L	.5	0.43	87	70-130	
achlor	ug/L	.5	0.48	97	70-130	
zine	ug/L	.88	0.43	49	70-130 L	_2
phene	ug/L		< 0.61			
chlorobiphenyl (S)	%			96	70-130	

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Project: LBG,Inc 42001269

Pace Project No.: 35324057

Date: 08/07/2017 12:31 PM

MATRIX SPIKE & MATRIX SPII	KE DUPLICA	TE: 20772	05 MS	MSD	2077206							
	3	5324367001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Alachlor	ug/L				0.96	0.95				1	40	M1
Atrazine	ug/L				< 0.13	< 0.13					40	MO
Butachlor	ug/L				0.50	0.50				1	40	M1
Chlordane (Technical)	ug/L				< 0.094	< 0.094					40	
Dieldrin	ug/L				0.44	0.43				1	40	M1
Endrin	ug/L				0.043	0.043				0	40	M1
gamma-BHC (Lindane)	ug/L				0.092	0.091				1	40	M1
Heptachlor	ug/L				0.18	0.16				9	40	M1
Heptachlor epoxide	ug/L				0.098	0.097				2	40	M1
Hexachlorobenzene	ug/L				0.64	0.60				8	40	M1
Hexachlorocyclopentadiene	ug/L				0.80	0.69				15	40	
Methoxychlor	ug/L				0.52	0.52				1	40	
Metolachlor	ug/L				0.46	0.46				1	40	M1
Propachlor	ug/L				0.52	0.51				2	40	M1
Simazine	ug/L				1.1	1.2				8	40	
Toxaphene	ug/L				<1.2	<1.2					40	
Decachlorobiphenyl (S)	%						46	46	70-130		40	S0

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Project: LBG,Inc 42001269

Pace Project No.: 35324057

Date: 08/07/2017 12:31 PM

QC Batch: 382064 Analysis Method: EPA 515.3

QC Batch Method: EPA 515.3 Analysis Description: 5153 GCS Herbicides

Associated Lab Samples: 35324057001

METHOD BLANK: 2073155 Matrix: Water

Associated Lab Samples: 35324057001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
2,4,5-TP (Silvex)	ug/L	<0.16	0.20	0.16	07/22/17 00:29	
2,4-D	ug/L	<0.081	0.10	0.081	07/22/17 00:29	
Dalapon	ug/L	< 0.89	1.0	0.89	07/22/17 00:29	
Dicamba	ug/L	< 0.067	0.10	0.067	07/22/17 00:29	
Dinoseb	ug/L	<0.16	0.20	0.16	07/22/17 00:29	
Pentachlorophenol	ug/L	< 0.030	0.040	0.030	07/22/17 00:29	
Picloram	ug/L	< 0.094	0.10	0.094	07/22/17 00:29	
2,4-DCAA (S)	%	88	70-130		07/22/17 00:29	

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
2,4,5-TP (Silvex)	ug/L		1.0	103	70-130	
2,4-D	ug/L	.5	0.39	78	70-130	
Dalapon	ug/L	5	4.5	90	70-130	
Dicamba	ug/L	.5	0.66	132	70-130 L	_1
Dinoseb	ug/L	1	1.1	114	70-130	
Pentachlorophenol	ug/L	.2	0.20	98	70-130	
Picloram	ug/L	.5	0.50	99	70-130	
2,4-DCAA (S)	%			93	70-130	

MATRIX SPIKE & MATRIX SI	PIKE DUPLICA	TE: 20734	78		2073479							
			MS	MSD								
	92	2347613003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
2,4,5-TP (Silvex)	ug/L	ND	1	1	1.1	1.1	108	111	70-130	3	40	
2,4-D	ug/L	ND	.5	.5	0.42	0.47	84	94	70-130	11	40	
Dalapon	ug/L	ND	5	5	5.7	6.0	115	120	70-130	5	40	
Dicamba	ug/L	ND	.5	.5	0.58	0.63	117	126	70-130	7	40	
Dinoseb	ug/L	ND	1	1	1.1	1.1	105	113	70-130	7	40	
Pentachlorophenol	ug/L	ND	.2	.2	0.18	0.19	91	95	70-130	4	40	
Picloram	ug/L	ND	.5	.5	0.65	0.70	130	140	70-130	7	40 I	M1
2,4-DCAA (S)	%						98	99	70-130			

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Project: LBG,Inc 42001269

Pace Project No.: 35324057

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MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	TE: 20734	80		2073481							
	_	5323949005	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
2,4,5-TP (Silvex)	ug/L	<0.16	1	1	1.1	1.1	108	110	70-130	1	40	
2,4-D	ug/L	<0.081	.5	.5	0.40	0.41	79	82	70-130	3	40	
Dalapon	ug/L	< 0.89	5	5	4.7	4.8	94	95	70-130	1	40	
Dicamba	ug/L	< 0.067	.5	.5	0.51	0.63	103	127	70-130	21	40	
Dinoseb	ug/L	<0.16	1	1	1.1	1.1	110	111	70-130	1	40	
Pentachlorophenol	ug/L	< 0.030	.2	.2	0.19	0.19	96	97	70-130	1	40	
Picloram	ug/L	< 0.094	.5	.5	0.55	0.57	110	115	70-130	5	40	
2,4-DCAA (S)	%						95	93	70-130			

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Project: LBG,Inc 42001269

Pace Project No.: 35324057

Date: 08/07/2017 12:31 PM

QC Batch: 382603 Analysis Method: EPA 525.2

QC Batch Method: EPA 525.2 Analysis Description: 525.2 Base Neutral Extractables

Associated Lab Samples: 35324057001

METHOD BLANK: 2076402 Matrix: Water

Associated Lab Samples: 35324057001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzo(a)pyrene	ug/L	<0.013	0.10	0.013	07/25/17 15:37	
bis(2-Ethylhexyl)adipate	ug/L	<0.38	1.6	0.38	07/25/17 15:37	
bis(2-Ethylhexyl)phthalate	ug/L	< 0.50	2.0	0.50	07/25/17 15:37	
Metribuzin	ug/L	<0.15	0.30	0.15	07/25/17 15:37	
1,3-Dimethyl-2-nitrobenzene(S)	%	85	70-130		07/25/17 15:37	
Perylene-d12 (S)	%	109	70-130		07/25/17 15:37	
Triphenylphosphate (S)	%	85	70-130		07/25/17 15:37	

ABORATORY CONTROL SAMPLE:	2076403	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
enzo(a)pyrene	ug/L	.4	0.30	76	70-130	
(2-Ethylhexyl)adipate	ug/L	6.4	4.9	77	70-130	
2-Ethylhexyl)phthalate	ug/L	8	6.8	85	70-130	
buzin	ug/L	1.2	1.0	83	70-130	
imethyl-2-nitrobenzene(S)	%			101	70-130	
lene-d12 (S)	%			94	70-130	
henylphosphate (S)	%			86	70-130	

MATRIX SPIKE & MATRIX SP	IKE DUPLICA	TE: 20772	03		2077204							
			MS	MSD								
	3	5323929005	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Benzo(a)pyrene	ug/L	<0.013	.8	.8	0.66	0.67	83	84	70-130	1	40	
bis(2-Ethylhexyl)adipate	ug/L	< 0.37	12.8	12.8	9.7	10.4	76	81	70-130	6	40	
bis(2-Ethylhexyl)phthalate	ug/L	< 0.49	16	16	12.6	13.7	79	86	70-130	9	40	
Metribuzin	ug/L	< 0.15	2.4	2.4	1.7	1.7	71	72	70-130	2	40	
1,3-Dimethyl-2- nitrobenzene(S)	%						100	99	70-130			
Perylene-d12 (S)	%						88	93	70-130			
Triphenylphosphate (S)	%						80	87	70-130			

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EPA 548.1

Project: LBG,Inc 42001269

Pace Project No.: 35324057

Date: 08/07/2017 12:31 PM

QC Batch: 381974 Analysis Method:

QC Batch Method: EPA 548.1 Analysis Description: 548 GCS Endothall

Associated Lab Samples: 35324057001

METHOD BLANK: 2072291 Matrix: Water

Associated Lab Samples: 35324057001

Blank Reporting
Parameter Units Result Limit MDL Analyzed Qualifiers

Endothall ug/L <4.3 9.0 4.3 07/24/17 19:29

LABORATORY CONTROL SAMPLE: 2072292

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Endothall ug/L 50 39.6 79 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2072347 2072348

MS MSD 35324386001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual Endothall 80-120 ug/L 4.3U 50 50 45.0 44.4 90 30 89

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2072358 2072359

MS MSD 35324386002 MS MSD MS MSD Spike Spike % Rec Max % Rec % Rec RPD Parameter Units Result Conc. Conc. Result Result Limits RPD Qual Endothall ug/L 4.3U 50 50 34.3 41.0 69 82 80-120 18 30 M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



LBG,Inc 42001269 Project:

Pace Project No.:

35324057

QC Batch: 381794

QC Batch Method: EPA 549.2 Analysis Method:

EPA 549.2

Analysis Description:

549 HPLC Paraquat Diquat

Associated Lab Samples:

2071478 METHOD BLANK:

Matrix: Water

Associated Lab Samples:

Diquat

Diquat

Diquat

35324057001

35324057001

Blank

Reporting

Parameter

Units

Result

2

Limit

MDL Analyzed

Qualifiers

Diquat < 0.30 0.40 0.30 07/20/17 00:32 ug/L

LABORATORY CONTROL SAMPLE:

Parameter

Parameter

Parameter

Date: 08/07/2017 12:31 PM

2071479

Units

ug/L

35324366001

35324454001

Result

Result

0.30U

Units

ug/L

Units

ug/L

Spike Conc.

MS

Spike

Conc.

MS

Spike

Conc.

2

2

LCS Result

LCS % Rec % Rec Limits

MS

% Rec

Qualifiers

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

2071882

2071883

MS

Result

1.6

MSD Result

1.7

82

MSD

% Rec

84

70-130

% Rec Limits

Max RPD RPD Qual 70-130 0 30

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

2071884

MSD

2

MSD

Spike

Conc.

2071885

MS MSD

1.7

MS MSD

84

% Rec

Max

RPD RPD Qual

0.00030U mg/L

Spike Conc. Result 2 0.60

Result 0.84 % Rec 30

% Rec 42 Limits 70-130

35 30 M1,R1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: LBG,Inc 42001269

Pace Project No.: 35324057

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

S0

Date: 08/07/2017 12:31 PM

PASI-O Pace Analytical Services - Ormond Beach

Surrogate recovery outside laboratory control limits.

ANALYTE QUALIFIERS

L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
L5	LCS recovery exceeded QC limits. Batch accepted based on matrix spike recovery within LCS limits.
MO	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LBG,Inc 42001269

Pace Project No.: 35324057

Date: 08/07/2017 12:31 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35324057001	C-23	EPA 504.1	381399	EPA 504.1	381607
35324057001	C-23	EPA 505	32255	EPA 505	32334
35324057001	C-23	EPA 508.1	382602	EPA 508.1	383798
35324057001	C-23	EPA 515.3	382064	EPA 515.3	382572
35324057001	C-23	EPA 531.1	381535		
35324057001	C-23	EPA 547	382091		
35324057001	C-23	EPA 549.2	381794	EPA 549.2	382025
35324057001	C-23	EPA 525.2	382603	EPA 525.2	382996
35324057001	C-23	EPA 548.1	381974	EPA 548.1	382933

EnviroTest Laboratories, Inc. WO#: 35324057

EnviroTest Est Laboratories Inc.

Sustody Record

EnviroTest Laboratories, Inc. 315 Fullerton Avenue
Newburgh, NY 12550
Phone (845) 562-0890 Fax (845) 562-0841

Client Information (Sub Contract Lab)	35324057				Jebra				Carner	Carner Tracking No(s):	(s):		420-9126.1		
Client Contact: Shipping/Receiving	Phone:			dbayer	E-Mall; dbayer@envirotestlaboratories.com	estlabora	tories.co	٤					Page: Page 1 of 1		
Company: Pace Analytical Ormond Beach							Anal	Analysis Requested	sanba	pe			STL Job #: 420-123595-5		
Address: 8 East Tower Circle,	Due Date Requested: 7/25/2017	Ü		Falling	5.0	DM							Preservation Codes:	a	
Giy. Ormond Beach	TAT Requested (da	ys):				-	sol						B - NaOH C - Zn Acetate		
State, Zip: FL, 32174	\$ 1	1	711311	282	sp)		nsgrC						D - Nitric Acid E - NaHSO4		
Phone: 111-222-3333(Tel)	PO #;			(0) elitel					2.3	G - Amchlor H - Ascorbic Acid	K - Na2S2SO3 S - H2SO4 T - TSP Dodecahydrate	ahydrate
Email:	:# OM			N 10 E	ON		ovim					8.			,
Project Name: LBG, Inc.	Project #: 42001269			89X) 9I	10 60,			-	61	uixo		entaine		W - ph 4-5 Z - other (specif	(,)
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Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (wewater, Seconda, Owwaste/oil, Owwaste/oil, ETTS:sue, A-Air.)	MISM mnohe9	SARTNO SEUR	AATNOOBUS AATNOOBUS	NASTNOOBUS DASTNOOBUS	алвсоитка	SASTNOSBUS		TedmuN latoT		Special Instructions/Note:	ote:
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Possible Hazard Identification Non-Hazard — Flammable Skin Irritant	☐ Poison B ☐ Unknown		Radiological		Sample	ile Disposal (A f Retum To Client	al (A fee Client	тау ре	Dispos	assessed if sam Disposal By Lab	nples a	re retair	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Archive For Mon	1 1 month) Months	
0, III, I∨, 0					Special	Special Instructions/QC Requirements:	ons/QC F	equirem	10 H						
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Custody Seals Intact: Custody Seal No.:					Coole	Cooler Temperature(s) °C and Other Remarks:	ture(s) °C a	and Other I	Remarks:						



Project Manager Review:

Document Name:
Sample Condition Upon Receipt Form
Document No.:
F-FL-C-007 rev. 11

Dodument Revised: February 6, 2017 Issuing Authority: Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project # Date and Initials of person: Project Manager: PM: VEG Due Date: 07/28/17 Examining contents: Label: CLIENT: EVNTES Client: Deliver: pH: Thermometer Used: TEV Date: 7/14/17 Time: \\\\ O Initials: \\ Cooler #1 Temp. (Visual) (Correction Factor) Samples on ice, cooling process has begun Cooler #2 Temp.°C 10.3 (Visual) +0~\ (Correction Factor) 10.4 Samples on ice, cooling process has begun Cooler #3 Temp.°C 9.4 (Visual) 40.1 (Correction Factor) 9.5 (Actual) Samples on ice, cooling process has begun Cooler #4 Temp.°C_____(Visual) _____(Correction Factor) _____ Samples on ice, cooling process has begun Cooler #5 Temp.°C (Visual) (Correction Factor) Samples on ice, cooling process has begun Cooler #6 Temp.°C_____(Visual) _____(Correction Factor) _____(Actual) Samples on ice, cooling process has begun Fed Ex UPS USPS Client Commercial Pace Other_ ☐ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☐ Ground □ Other_ Billing: □ Recipient ☐ Sender ☐ Third Party ☐ Unknown Tracking # 7796 2610 4340/7796 2609 3485 Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No Blue None Packing Material: Bubble Wrap Bubble Bags None Other___ Samples shorted to lab (If Yes, complete) Shorted Date: Shorted Time: Qty: ___ Comments: Chain of Custody Present ØYes □ No □N/A Chain of Custody Filled Out ØYes □ No □N/A Relinquished Signature & Sampler Name COC DYes □ No □N/A Samples Arrived within Hold Time ØYes □ No □N/A Rush TAT requested on COC □Yes ☑No □N/A Sufficient Volume ØYes □ No □N/A Correct Containers Used ØYes □ No □N/A Containers Intact ☑Yes ☐ No ☐N/A Sample Labels match COC (sample IDs & date/time of collection) ☑Yes ☐ No ☐N/A All containers needing acid/base preservation have been checked. Preservation Information: □Yes □ No □N/A Preservative: All Containers needing preservation are found to be in Lot #/Trace #: compliance with EPA recommendation: □Yes □ No □N/A Date: Exceptions: VOA, Coliform, TOC, O&G, Carbamates Initials: Headspace in VOA Vials? (>6mm): □Yes □ No □N/A Trip Blank Present: □Yes □ No ☑N/A Client Notification/ Resolution: Person Contacted: Date/Time: Comments/ Resolution (use back for additional comments): aray to run out

Date:

Page 21 of 21



Pace Analytical Services, Inc.

1700 Elm Street Minneapolis, MN 55414 Phone: 612.607.1700

Fax: 612.607.6444

Report Prepared for:

Jeff Baylor **PASI Florida** 8 East Tower Circle Ormond Beach FL 32174

> **REPORT OF LABORATORY ANALYSIS FOR** 2,3,7,8-TCDD

Report Summary:

This report contains results of one drinking water sample analyzed to determine 2,3,7,8-TCDD content. This sample was analyzed according to Method 1613 by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

Report Prepared Date:

July 28, 2017

Report Information:

Pace Project #: 10396096

Sample Receipt Date: 07/18/2017

Client Project #: 35324057

Client Sub PO #: N/A **State Cert #: 11647**

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 Drinking Water Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Sarah Platzer, your Pace Project Manager.

This report has been reviewed by:

July 28, 2017

Sarah Platzer, Project Manager 612-607-6451 (612) 607-6444 (fax) sarah.platzer@pacelabs.com



Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.



Tel: 612-607-1700 Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Montana	CERT0092
Alabama	40770	Nebraska	NE-OS-18-06
Alaska	MN00064	Nevada	MN00064
Alaska	UST-078	New Jersey (NE	MN002
Arizona	AZ0014	New York (NEL	11647
Arkansas	88-0680	New hampshire	2081
CNMI Saipan	MP0003	North Carolina	27700
California	MN00064	North Carolina	530
Colorado	MN00064	North Dakota	R-036
Connecticut	PH-0256	Ohio	41244
EPA Region 8	8TMS-L	Ohio VAP	CL101
Florida (NELAP	E87605	Oklahoma	9507
Georgia (EDP)	959	Oregon (ELAP)	MN200001
Guam EPA	959	Oregon (OREL	MN300001
Hawaii	MN00064	Pennsylvania	68-00563
Idaho	MN00064	Puerto Rico	MN00064
Illinois	200011	South Carolina	74003001
Indiana	C-MN-01	Tennessee	TN02818
Iowa	368	Texas	T104704192
Kansas	E-10167	Utah (NELAP)	MN00064
Kentucky	90062	Virginia	460163
Louisiana	03086	Washington	C486
Louisiana	MN00064	West Virginia #	9952C
Maryland	322	West Virginia D	382
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-L
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.



Tel: 612-607-1700 Fax: 612- 607-6444

Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X =%D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

REPORT OF LABORATORY ANALYSIS

Chain of Custody



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^{***}In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical*

Document Name: Sample Condition Upon Receipt Form

Document No.: F-MN-L-213-rev.20 Document Revised: 19Dec2016 Page 1 of 2

Issuing Authority: Pace Minnesota Quality Office

Sample Condition Client Name:		Project :	#:
Upon Receipt Pace Ocmond	Brial.	-	MO#:10396096
Courier: Teed Ex TUPS	<u> </u>	}~ T⊂liant	
Commercial Pace SpeeDee	Oses Other:	_ Client	
Tracking Number: 7432-5599-	1564		10396096
		_	Optional Peri Duo Dato Brai Name
Custody Seal on Cooler/Box Present? Yes No	Seals	Intact? 🖵	Yes Optional: Proj. Due Date: Proj. Name:
Packing Material: Bubble Wrap Bubble Bags	□None §	Other: T	Temp Blank? Yes No
Thermometer 151401163 Used: 151401164	Type of Ico	e: DWet	Blue None Samples on ice, cooling process has begun
Cooler Temp Read (°C): 2.5 Cooler Temp Core		.5	Biological Tissue Frozen? Yes No No
Temp should be above freezing to 6°C Correction Factor	or: Torag	Date	and Initials of Person Examining Contents: 7/18/15
USDA Regulated Soil (N/A, water sample) Did samples originate in a quarantine zone within the United S	tates: Al. AR. CA	FL GA ID IA	A. MS, Did samples originate from a foreign source (internationally,
NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)?	[□Yes 🔚	No including Hawaii and Puerto Rico)?
If Yes to either question, fill out a Reg	ulated Soil Che	klist (F-MN-	Q-338) and include with SCUR/COC paperwork.
			COMMENTS:
Chain of Custody Present?	Yes 🔃		1.
Chain of Custody Filled Out?	Yes 🔃	No	2.
Chain of Custody Relinquished?	¥Yes □r	No	3.
Sampler Name and/or Signature on COC?	Yes □	Vo □N/A	4.
Samples Arrived within Hold Time?	Yes 🗀	No	S
Short Hold Time Analysis (<72 hr)?	☐Yes 💢	No	6.
Rush Turn Around Time Requested?	☐Yes 🔀 I	Vo	7.
Sufficient Volume?	Yes 🗆	Vo	8.
Correct Containers Used?	⊠ Yes □r	No	9.
-Pace Containers Used?	Yes □	No	
Containers Intact?	Yes □	No	10.
Filtered Volume Received for Dissolved Tests?	∐Yes □I	No XIN/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	Yes 🗀	No .	12.
-Includes Date/Time/ID/Analysis Matrix:			
All containers needing acid/base preservation have been		۵	13. HNO ₃ H ₂ SO ₄ NaOH Positive for Res.
checked? All containers needing preservation are found to be in	∐Yes ∐t	No ANA	Chlorine? Y N Sample #
compliance with EPA recommendation?			Sample II
(HNO₃, H₂SO₄, <2pH, NaOH>9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Colfform, TOC/DOC Oil and Grease,	∐Yes □	∿ X N/A	la i dia l'orban
DRO/8015 (water) and Dioxin.	Yes 🗀	No □N/A	Initial when Lot # of added completed: preservative:
Headspace in VOA Vials (>6mm)?	Yes D		14.
Trip Blank Present?	☐Yes ☐N	10 N/A	15.
Trip Blank Custody Seals Present?	∐Yes ∐N	10 N/A	
Pace Trip Blank Lot # (if purchased):			
CLIENT NOTIFICATION/RESOLUTION			Field Data Required? Yes No
Person Contacted:			Date/Time:
Comments/Resolution:			
, and			
	A		
Project Manager Review:	thes_		Date: 7/19/2017
Note: whenever there is a discrepancy affecting North Carolina co	mariance samples	s, a copy of this	s form will be sent to the North Carolina DEHNR Certification Office (i.e. out of

hold, incorrect preservative, out of temp, incorrect containers).



Drinking Water Analysis Results 2,3,7,8-TCDD -- USEPA Method 1613B

Tel: 612-607-1700 Fax: 612-607-6444

 Date Collected.....07/13/2017 Date Received.....07/18/2017

Lab Sample ID..... 35324057001 Date Extracted.....07/25/2017

	Sample C-23	Method Blank	Lab Spike	Lab Spike Dup
[2,3,7,8-TCDD]	ND	ND		
EDL	4.7 pg/L	3.1 pg/L		
2,3,7,8-TCDD Recovery			102%	118%
Spike Recovery Limit			73-146%	73-146%
RPD			14	1.4%
IS Recovery	55%	65%	68%	71%
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	77%	82%	74%	90%
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename	Y170727B_31	Y170727B_14	Y170727B_12	Y170727B_13
Analysis Date	07/28/2017	07/27/2017	07/27/2017	07/27/2017
Analysis Time	06:49	22:43	21:45	22:14
Analyst	SMT	SMT	SMT	SMT
Volume	1.040L	1.010L	1.048L	1.047L
Dilution	NA	NA	NA	NA
ICAL Date	07/27/2017	07/27/2017	07/27/2017	07/27/2017
CCAL Filename	Y170727B_11	Y170727B_11	Y170727B_11	Y170727B_11

! = Outside the Control Limits ND = Not Detected

EDL = Estimated Detection Limit

Limits = Control Limits from Method 1613 (10/94 Revision), Tables 6A and 7A

RPD = Relative Percent Difference of Lab Spike Recoveries

IS = Internal Standard $[2,3,7,8\text{-TCDD-}^{13}C_{12}]$ CS = Cleanup Standard $[2,3,7,8\text{-TCDD-}^{37}Cl_4]$

Project No......10396096

MPA SAMPLE RESULTS
WELLS C-6, C-12, C-14, C-16, C-21 AND C-23

Microbiological Testing, Research and Consulting

130 Allen Brook Ln., PO Box 515, Williston, VT 05495 USA 1.800.723.4432 / 802.878.5138 Fax: 802.878,6765 www.analyticalservices.com

8/18/2017

Ron Bayer EnviroTest Laboratories 315 Fullerton Ave. Newburgh, NY 12550

Subj.: ASI Report 57773

Dear Ron,

Enclosed please find the results of Microscopic Particulate Analysis (MPA) performed by Analytical Services, Inc. (ASI).

Sample(s) covered in this report were received at ASI on:

7/13/2017

This report contains the following number of pages (total):

14

This report concerns only the samples referenced herein. These results were generated under ASI's quality system, which is in accordance with the NELAC (TNI) standard. Deviations, if any, are noted.

Exceptions:

ASI processed, these six (6) samples and performed the Crypto/Giardia analyses; the MPA microscopic examinations were performed by Dr. R. Danielson of IEH-BioVir, an ASI affiliate with extensive MPA experience and expertise.

This report shall not be reproduced, except in full, without ASI's written permission.

Thank you for using ASI for your microbiological testing needs. If you have any questions, please contact us at 800-723-4432.

Sincerely,

ANALYTICAL SERVICES, INC. (ASI)

Harry D. Christman, Ph

Technical Director

Microscopic Particulate Analysis (MPA) Sample Information Client EnviroTest (LBG) Volume Sampled (gal) 571.73 Filter Color Brown Site Clovewood Sediment Volume (mL) Water Type Raw/Well 1.4 7/17/17 9:59 Client Sample ID C-6 **Analysis Start** Analysis End 11-Aug-17 ASI Sample # 57773-01 MPA Data (data per 100 gal.) Vol. Examined at 150x (gal.) 100 Detection Limit at 150X = 1.0 Vol. Examined at 300x (gal.) NA Detection Limit at 300X = NA **Amorphous Debris** No Data Iron Bacteria No Data Vegetative Debris w/ chlorophyll ND Crustaceans ND ND Veg. Debris w/o chlorophyll ND Crustacean Parts/Eggs Water Mites No Data Diatoms w/ chlorophyll (300X) ND Diatoms w/o chlorophyll (300X) ND Gastrotrichs No Data No Data Other Algae (300X, see below) ND **Tardigrades** Rotifers ND Nematodes/N. Eggs ND Rotifer Eggs No Data Invertebrate Eggs No Data No Data Annelids No Data Spores Amoeba ND Pollen ND Protozoa (300X, non-Crypto/Giardia) No Data Insects/Larvae ND Cryptosporidium and Giardia Data Volume Examined (L) 726.5 RESULTS per Vol. Examined Per 1001 Cryptosporidium Oocysts: < 0.14 Giardia Cysts < 0.14 MPA Risk Rating Score (per EPA Consensus Method) Numerical Score Risk Rating Low

Other Algae Observed	NA	
Comments	NA = Not Applicable	
	No Data = Not recorded; not relevant in MPA Risk Rating score.	
	ND = None Detected	

Methods: MPA - SOP based on EPA Consensus Method (EPA 910/9-92-029)

Cryptosporidium & Giardia - SOP based on purification, staining & exam procedures in EPA 1623/1623.1

Notes MPA Risk Rating Tables were developed by USEPA Region 10 from limited data; interpret with caution.

Microscopic Particulate Analysis (MPA)

-				_
Samp	0	Into	rm:	ation
Julia		11110		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Client	EnviroTest (LBG)	Volume Sampled (gal)	508.83
Client	Lilvilorest (LBG)	Volume Sampled (Bal)	300.03
Site	Clovewood	Filter Color	Black
Water Type	Raw/Well	Sediment Volume (mL)	10
Client Sample ID	C-12	Analysis Start	7/13/17 13:07
ASI Sample #	57773-02	Analysis End	8/11/17

MPA Data (data per 100 gal.)

			IVIPA Data (data per 100 gai.)
1.0	Detection Limit at 150X =	100	Vol. Examined at 150x (gal.)
NA	Detection Limit at 300X =	NA	Vol. Examined at 300x (gal.)
No Data	Iron Bacteria	No Data	Amorphous Debris
ND	Crustaceans	ND	Vegetative Debris w/ chlorophyll
ND	Crustacean Parts/Eggs	ND	Veg. Debris w/o chlorophyll
No Data	Water Mites	ND	Diatoms w/ chlorophyll (300X)
No Data	Gastrotrichs	ND	Diatoms w/o chlorophyll (300X)
No Data	Tardigrades	ND	Other Algae (300X, see below)
ND	Nematodes/N. Eggs	ND	Rotifers
No Data	Invertebrate Eggs	No Data	Rotifer Eggs
No Data	Annelids	No Data	Spores
ND	Amoeba	ND	Pollen
No Data	Protozoa (300X, non-Crypto/Giardia)	ND	Insects/Larvae

Cryptosporidium and Giardia Data

ci yptosporiulum and Giardia i	Jata				
Volume Ex	emined (L)	96.3		R	ESULTS
				per Vol.	
			0.4	Examined	Per 100L
			Cryptosporidium Oocysts:	0	<1.04
			Giardia Cysts:	0	<1.04

MPA Risk Rating Score (per EPA Consensus Method)

A Mak Mating Score (per El A conscisus Met	ilouj			_
Numerical Score	0	Risk Rating	Low	

Other

Algae Observed N.

NA

Comments

NA = Not Applicable

No Data = Not recorded; not relevant in MPA Risk Rating score.

ND = None Detected

Methods:

MPA - SOP based on EPA Consensus Method (EPA 910/9-92-029)

Cryptosporidium & Giardia - SOP based on purification, staining & exam procedures in EPA 1623/1623.1

Notes

MPA Risk Rating Tables were developed by USEPA Region 10 from limited data; interpret with caution.

Microscopic Particulate Analysis (MPA) Sample Information 1010.13 Volume Sampled (gal) Client EnviroTest (LBG) Clovewood Filter Color Gray Site Raw/Well Sediment Volume (mL) 25 Water Type 7/13/17 13:14 **Analysis Start** Client Sample ID C-14 Analysis End 8/11/17 57773-03 ASI Sample # MPA Data (data per 100 gal.) Vol. Examined at 150x (gal.) 100 Detection Limit at 150X = 1.0 Detection Limit at 300X = NA Vol. Examined at 300x (gal.) NA Iron Bacteria No Data **Amorphous Debris** No Data ND Vegetative Debris w/ chlorophyll ND Crustaceans ND ND Crustacean Parts/Eggs Veg. Debris w/o chlorophyll Diatoms w/ chlorophyll (300X) ND Water Mites No Data No Data Gastrotrichs Diatoms w/o chlorophyll (300X) ND ND Tardigrades No Data Other Algae (300X, see below) ND ND Nematodes/N. Eggs Rotifers No Data Invertebrate Eggs No Data Rotifer Eggs No Data Annelids No Data Spores Pollen ND Amoeba ND ND Protozoa (300X, non-Crypto/Giardia) No Data Insects/Larvae Cryptosporidium and Giardia Data **RESULTS** Volume Examined (L) 76.5 per Vol. Examined Per 100L 0 <1.31 Cryptosporidium Oocysts: Giardia Cysts <1.31 MPA Risk Rating Score (per EPA Consensus Method) Risk Rating Numerical Score Low Other NA Algae Observed NA = Not Applicable Comments No Data = Not recorded; not relevant in MPA Risk Rating score. ND = None Detected

Methods: MPA - SOP based on EPA Consensus Method (EPA 910/9-92-029)

Cryptosporidium & Giardia - SOP based on purification, staining & exam procedures in EPA 1623/1623.1

Notes MPA Risk Rating Tables were developed by USEPA Region 10 from limited data; interpret with caution.

Microscopic Particulate Analysis (MPA)

Sample Information

Client	EnviroTest (LBG)	Volume Sampled (gal)	869.79
Client	Environest (LBG)	Volume Sampled (Barry	003.75
Site	Clovewood	Filter Color	Orange/Tan
Water Type	Raw/Well	Sediment Volume (mL)	0.8
Client Sample ID	C-16	Analysis Start	7/14/17 10:33
ASI Sample #	57773-04	Analysis End	8/11/17

MPA Data (data per 100 gal.)

			IVIPA Data (data per 100 gai.)
1.0	Detection Limit at 150X =	100	Vol. Examined at 150x (gal.)
NA	Detection Limit at 300X =	NA	Vol. Examined at 300x (gal.)
No Data	Iron Bacteria	No Data	Amorphous Debris
ND	Crustaceans	ND	Vegetative Debris w/ chlorophyll
ND	Crustacean Parts/Eggs	ND	Veg. Debris w/o chlorophyll
No Data	Water Mites	ND	Diatoms w/ chlorophyll (300X)
No Data	Gastrotrichs	ND	Diatoms w/o chlorophyll (300X)
No Data	Tardigrades	ND	Other Algae (300X, see below)
ND	Nematodes/N. Eggs	ND	Rotifers
No Data	Invertebrate Eggs	No Data	Rotifer Eggs
No Data	Annelids	No Data	Spores
ND	Amoeba	ND	Pollen
No Data	Protozoa (300X, non-Crypto/Giardia)	ND	Insects/Larvae

Cryptosporidium and Giardia Data

Cryptosporiaium an	u Giaruia Data				
	Volume Examined (L)	1646.1		RESUL	TS
				per Vol.	
				Examined	Per 100L
			Cryptosporidium Oocysts:	o	<0.06
			Giardia Cysts:	0	<0.06

MPA Risk Rating Score (per EPA Consensus Method)

	110000000000000000000000000000000000000		1	\neg
Numerical Score	0	Risk Rating	Low	= 1,

Other

Algae Observed NA

Comments

Notes

NA = Not Applicable

No Data = Not recorded; not relevant in MPA Risk Rating score.

ND = None Detected

Methods: MPA - SOP based on EPA Consensus Method (EPA 910/9-92-029)

Cryptosporidium & Giardia - SOP based on purification, staining & exam procedures in EPA 1623/1623.1

MPA Risk Rating Tables were developed by USEPA Region 10 from limited data; interpret with caution.

Microscopic Particulate Analysis (MPA)

Samp	le	Info	rma	tion
Julia				

Client	EnviroTest (LBG)	Volume Sampled (gal)	988.3
Site	Clovewood	Filter Color	Tan
Water Type	Raw/Well	Sediment Volume (mL)	1.5
Client Sample ID	C-21	Analysis Start	7/13/17 11:37
ASI Sample #	57773-05	Analysis End	8/11/17

MPA Data (data per 100 gal.)

			IVII A Data (data per 100 gail)
1.0	Detection Limit at 150X =	100	Vol. Examined at 150x (gal.)
NA	Detection Limit at 300X =	NA	Vol. Examined at 300x (gal.)
No Data	Iron Bacteria	No Data	Amorphous Debris
ND	Crustaceans	ND	Vegetative Debris w/ chlorophyll
ND	Crustacean Parts/Eggs	ND	Veg. Debris w/o chlorophyll
No Data	Water Mites	ND	Diatoms w/ chlorophyll (300X)
No Data	Gastrotrichs	ND	Diatoms w/o chlorophyll (300X)
No Data	Tardigrades	ND	Other Algae (300X, see below)
ND	Nematodes/N. Eggs	ND	Rotifers
No Data	Invertebrate Eggs	No Data	Rotifer Eggs
No Data	Annelids	No Data	Spores
ND	Amoeba	ND	Pollen
No Data	Protozoa (300X, non-Crypto/Giardia)	ND	Insects/Larvae

Cryptosporidium and Giardia Data

Cryptosporiulum and Giardia Data				
Volume Examined (L)	1246.8		RESUL	TS
		T	per Vol.	
			Examined	Per 100L
		Cryptosporidium Oocysts:	0	<0.08
		Giardia Cysts:	0	<0.08

MPA Risk Rating Score (per EPA Consensus Method)

Numerical Score	0	Risk Rating	Low

Other

Algae Observed

NA

Comments

NA = Not Applicable

No Data = Not recorded; not relevant in MPA Risk Rating score.

ND = None Detected

Methods:

MPA - SOP based on EPA Consensus Method (EPA 910/9-92-029)

Cryptosporidium & Giardia - SOP based on purification, staining & exam procedures in EPA 1623/1623.1

Notes

MPA Risk Rating Tables were developed by USEPA Region 10 from limited data; interpret with caution.

Microscopic Particulate Analysis (MPA) Sample Information EnviroTest (LBG) Volume Sampled (gal) 1092.03 Client Orange/Brown Site Clovewood Filter Color Sediment Volume (mL) 0.4 Water Type Raw/Well **Analysis Start** 7/13/17 11:25 Client Sample ID C-23 57773-06 Analysis End 8/11/17 ASI Sample # MPA Data (data per 100 gal.) 1.0 Detection Limit at 150X = Vol. Examined at 150x (gal.) 100 Vol. Examined at 300x (gal.) NA Detection Limit at 300X = NA **Amorphous Debris** No Data Iron Bacteria No Data ND Vegetative Debris w/ chlorophyll ND Crustaceans ND Veg. Debris w/o chlorophyll ND Crustacean Parts/Eggs No Data Water Mites Diatoms w/ chlorophyll (300X) ND Diatoms w/o chlorophyll (300X) ND Gastrotrichs No Data No Data Other Algae (300X, see below) ND **Tardigrades** Nematodes/N. Eggs ND Rotifers ND No Data Invertebrate Eggs Rotifer Eggs No Data Spores No Data **Annelids** No Data Pollen Amoeba ND ND Protozoa (300X, non-Crypto/Giardia) Insects/Larvae ND No Data Cryptosporidium and Giardia Data Volume Examined (L) 이 RESULTS per Vol. Examined Per 100L Cryptosporidium Oocysts: 0 < 0.05 Giardia Cysts < 0.05 MPA Risk Rating Score (per EPA Consensus Method) **Numerical Score** ol Risk Rating Low Other NA Algae Observed NA = Not Applicable Comments No Data = Not recorded; not relevant in MPA Risk Rating score. ND = None Detected

MPA - SOP based on EPA Consensus Method (EPA 910/9-92-029)

Cryptosporidium & Giardia - SOP based on purification, staining & exam procedures in EPA 1623/1623.1 MPA Risk Rating Tables were developed by USEPA Region 10 from limited data; interpret with caution.

MPA Risk Rating Score - if less than 100 gallons was examined, interpret with caution.

Methods:

Notes

P7/14



123563-1

Page ____ of _____

CHAIN OF CUSTODY RECORD

Ship to:

Analytical Services, Inc., 130 Allen Brook Lane, Williston, VT 05495, Attn: Sample Management Phone: 1-800-723-4432 or 802-878-5138 • Fax: 802-878-6765 Web site: www.analyticalservices.com

4 Resear	136, Inc. ch D. Suik # 204 oo, CT 06484	Report To: USG, Francisco
Phone: 203-92	9-855 Email: sstieberelbacton	Phone: Email:
Project Name	Clovewood	Invoice To: Simon Gelb
Job Site	Clovewood	
P.O. Number	LakeAnn	Phone: Email:

	Sample	Sample Collection			Sample Matrix						Lab Use
Sample Identification*	Date (Start)	Time (Start)	Sampler Initials	Water - Raw	Water - Finished	Waste Water	Biosolids	Soil/Sediment	Other	Analysis Requested	Only Temp
C-6	7/11/17	18500	3	X						MPA, giardia, crypto	
									-		
									-		

Relinquished By (signature)	Date/Time	Received By (sig	gnature)	Date/Time	
Start Shuge	7/13/17/432	allisin	4.8°	7/17/17/1432	4.2°C IR#3
Field Comments:		Lab Comments:			- 57 (66

123563-2

Page ____ of ____

CHAIN OF CUSTODY RECORD

Ship to:

Submitted By:	leggette, Brashears & Graham- y Research Dr. Smite 204 Shelton, CC 66484	Report To: Stacy Strebey Leggette, Brasheas & Graham 4 Research Dr. Suite 204 She Hon, CT OL 484
Phone: 203-93	98555 Email: Stelser @ Usgct. com	Phone: 203-929-855 Email: Ssticker Olyget
Project Name	Clovewood	Invoice To: Simon Gelb
Job Site	Governood	
P.O. Number	Lakann	Phone: Email:

	Sample	Sample Collection			Sample Matrix						Lab Use
Sample Identification*	Date (Start)	Time (Start)	Sampler Initials	Water - Raw	Water - Finished	Waste Water	Biosolids	Soil/Sediment	Other	Analysis Requested	Only Temp (°C)
C-12	7/11/17	1613	63)	X						MPA, giardia, crypto	3.1
	-										
			-								-

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
Milly ft Dellasto	7/12/17/430	Rey 4.84	7/12/17 1430
Field Comments:		Lab Comments:	



Submitted By: _______

123563-3

Page ____ of ____

CHAIN OF CUSTODY RECORD

Ship to:

Analytical Services, Inc., 130 Allen Brook Lane, Williston, VT 05495, Attn: Sample Management Phone: 1-800-723-4432 or 802-878-5138 Fax: 802-878-6765 Web site: www.analyticalservices.com

Suik #204

Report To:

Project Name	Clove					Invoi	се То	o;	CC	S	imon Ge	b				
Job Site	Clover	wool														
P.O. Number	CakeA	keAnn			Phone: Email:											
	Sample Collection					Sai	nple		trix				Lab Use			
	mple fication*	Date (Start)	Time (Start)	Sampler Initials	Water - Raw	Water - Finished	Waste Water	Biosolids	Soil/Sediment	Other	Analy Reque		Temp			
C-	-14	7/11/17	18300	B							MBA, gian	dia, crypi	-			
	ld match ID written By (signature)		ple contain Date/Time		and d	ata s	_) will appear on the signature)	e report for identif Date/Time				
Marit	Delheye-	1/10	1	30	\$	16 Nui	Se	4	5		<i>ψ. ψ</i> c	7/12/17 10	130			
Field Comment		17//	CAT I			Lab		1				7710717				



123563-4

Page ___ of ___

CHAIN OF CUSTODY RECORD

Ship to:

Analytical Services, Inc., 130 Allen Brook Lane, Williston, VT 05495, Attn: Sample Management Phone: 1-800-723-4432 or 802-878-5138 • Fax: 802-878-6765 Web site: www.analyticalservices.com

4 Research Dr. Suite204	
Phone: <u>203-929-85B Email: SSF Chev @ Ux) CF</u> COPHone: Email:	
Project Name Clave wood Invoice To: Simon Gelb	
Job Site Clove Wood	
P.O. Number Cakann Phone: Email:	

9.5	Sample	Collection	on			sample Matrix			Lab Use		
Sample Identification*	Date (Start)	Time (Start)	Sampler Initials	Water - Raw	Water - Finished	Waste Water	Biosolids	Soil/Sediment	Other	Analysis Requested	Only Temp
C-16	7/11/17	1650	(58)	X				Į.		MPA, giardia, Crypto	
											F
											1

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
Field Comments:	7/12/17 1435	Lab Comments:	7/12/17 1435

123563-5

Page ____ of ____

CHAIN OF CUSTODY RECORD

Ship to:

Submitted By:Phone: 203-92	Leggette, Broshoavs & Gval 9 Research Dr. Soute 204 Shelton, CT 06484 9-855Email: SSticker Olbyck (MAREPORT TO: LEGGETTE, Brashours & Graham Stacy Streber 4 Research Dr. Saile 204 Shelton, CT Oby84 DM Phone: 2139298555 Email: SSFreber@Ubget.ion
Project Name	Clovewood	Invoice To: Simon Gelb
Job Site	Clovewood	- CFC, WC
P.O. Number	Lakann	Phone:Email:

	Sample	Collection	on			mple check					Lab Use
Sample Identification*	Date (Start)	Time (Start)	Sampler Initials	Water - Raw	Water - Finished	Waste Water	Biosolids	Soil/Sediment	Other	Analysis Requested	Temp
C-21	7/11/17	1749	3	X						MPA, giandia, crypto	5.0
											-

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
Gracy Man	7/12/17 1430	SRay 4.6°	7/12/10 1430
Field Comments:	7114/7013	Lab Comments:	111311) 10;10



123563-6 P

Page ____ of ____

CHAIN OF CUSTODY RECORD

Ship to:

	leagette, Brusheurs & Grahan + Research Dr. Suite 204 Shellon, CT Oby84	Report To: Stacy Sticker Luggitte, Brushears & Graham Inc. 4 Research Dr. Suite 204 Shellow CT Obyssy
Phone: 203-92	1-8555 Email: Sticker Olbych Com	Phone: 203 929-855 Email: Stieber & Ubget. com
Project Name	Clovewood	Invoice To: Simon Gelb
Job Site	Clovewood	
P.O. Number	Lakann	Phone; Email:

	Sample	Collectio	n			mple check					Lab Use
Sample Identification*	Date (Start)	Time (Start)	Sampler Initials	Water - Raw	Water - Finished	Waste Water	Biosolids	Soil/Sediment	Other	Analysis Requested	Only Temp (°C)
(-23	7/11/17	1753	03)	火						MPA, giardia, coypto	11,2
	'									7.	
						-					
									7		-

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time	
Jaog III	7/12/17/1431	Boy 5,3	7/12/17 143)	IR
Field Comments:	1 11 11 11 12 12	Lab Comments:	1.7 07.7 10.70	- ₀ n



CHAIN OF CUSTODY RECORD

Ship to:

Analytical Services, Inc., 130 Allen Brook Lane, Williston, VT 05495, Attn: Sample Management Phone: 1-800-723-4432 or 802-878-5138 • Fax: 802-878-6765 Web site: www.analyticalservices.com

Ellali. Dicher Opportunit i none. Wis 10 1005 Ellali.	55tieber@Ungct.com
Project Name Clove Wood Invoice To: Mr. Simon Gel	gelb
Job Site Clove Wood	
P.O. Number Lakann Phone: Email:	

	Sample	/			Ma				Lab Use		
Sample Identification*	Date (Start) (Start) Samble Luitials			Water - Raw	Water - Finished	Waste Water	Biosolids	Soil/Sediment	Other	Analysis Requested	Only Temp (°C)
C-7B	7/11/17	1533	63	X						MPA, giardia, crypto	
	-/									//	
	/	000			-				-		-
	140	5/200	5					-	-		+
	a cu	-	0	X	5						
(0	5	J.	1	1	'.V'						
	•		T'								

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
		New Eyland	7/13/17 10:10
Field Comments:		Lab Comments: Cancelled per Client reg	vest.

APPENDIX XI

C-12 SEPTEMBER 2017



ANALYTICAL REPORT

Job Number: 420-126731-1 SDG Number: Clovewood Job Description: LBG, Inc.

For:

Leggette, Brashears & Graham, Inc. 4 Research Drive Shelton, CT 06464

Attention: Stacy Stieber

Debra Bayer

Subbra Sa

Customer Service Manager dbayer@envirotestlaboratories.com 09/28/2017

NYSDOH ELAP does not certify for all parameters. EnviroTest Laboratories does hold certification for all analytes where certification is offered by ELAP unless otherwise specified in the Certification Information section of this report. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval of the laboratory. EnviroTest Laboratories Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our laboratory. All questions regarding this report should be directed to the EnviroTest Customer Service Representative.

EnviroTest Laboratories, Inc. Certifications and Approvals: NYSDOH 10142, NJDEP NY015, CTDOPH PH-0554



METHOD SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-126731-1 SDG Number: Clovewood

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Total Coliform and Escherichia coli by Colilert - Presence/Absence	EnvTest	SMWW SM 9223	3

Lab References:

EnvTest = EnviroTest

Method References:

SMWW = "Standard Methods for the Examination of Water and Wastewater"

METHOD / ANALYST SUMMARY

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-126731-1

SDG Number: Clovewood

Method	Analyst	Analyst ID		
SMWW SM 9223	O'Driscoll, Kate	KO		

SAMPLE SUMMARY

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-126731-1

SDG Number: Clovewood

			Date/Time	Date/Time
Lab Sample ID	Client Sample ID	Client Matrix	Sampled	Received
420-126731-1	C-12	Drinking Water	09/20/2017 1320	09/20/2017 1440

Analytical Data

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-126731-1

Sdg Number: Clovewood

Biology

Client Sample ID: C-12

Anly Batch:

 Lab Sample ID:
 420-126731-1
 Date Sampled:
 09/20/2017
 1320

 Client Matrix:
 Drinking Water
 Date Received:
 09/20/2017
 1440

Analyte Result Qual Units Dil Method Coliform, Total Absent CFU/100mL 1.0 SM 9223 09/20/2017 1658 Anly Batch: Date Analyzed Escherichia coli Absent CFU/100mL 1.0 SM 9223

Date Analyzed

09/20/2017 1658

DATA REPORTING QUALIFIERS

Lab Section Qualifier Description

Certification Information

The following analytes are Not Part of the ELAP scope of accreditation:

Sulfur, Tungsten, Silicon, Bicarbonate Alkalinity, 7 Day BOD 5210C, 28 Day BOD, Soluble BOD, Carbon Dioxide, Carbonate Alkalinity, CBOD Soluble, Chlorine, Cyanide (WAD), Ferrous Iron, Ferric Iron, Total Nitrogen, Total Organic Nitrogen, Dissolved Oxygen, pH, Phenolphthalein Alkalinity, Solids (Fixed), Solids (Percent), Solids (Percent Moisture), Solids (Percent Volatile), Solids (Volatile Suspended), Temperature, TKN (Soluble), COD (Soluble), Total Inorganic Carbon, Volatile Acids as Acetic Acid, 2-Aminopyridine, 3-Picoline, 1-Methyl-2-pyrrilidinone, Aziridine, Dimethyl sulfoxide, 1-Chlorohexane, Iron Bacteria, Salmonella, & Sulfur Reducing Bacteria.

The following analytes are Not Part of ELAP Potable Water scope of accreditation:

Cobalt (200.7, 200.8), Tin (200.7), Strontium (200.7), Gold (200.7), Platinum (200.7), Palladium (200.7), Titanium (200.7), Phosphorus (365.3), Nitrate-Nitrite (10-107-4-1C, 353.2), m-Xylene & p-Xylene (502.2, 524), Naphthalene (502.2), o-Xylene (502.2, 524), & Fecal Coliform (9222D).

The following analytes are Not Part of ELAP Solid and Hazardous Waste scope of accreditation:

Ammonia (SM 4500NH3G), TKN (351.2), Phosphorus (365.3), 1,2-Dichloro-1,1,2-trifluoroethane (8260), & Chlorodifluoromethane (8260).

The following analytes are Not Part of ELAP Non Potable Water scope of accreditation:

Dissolved Organic Carbon (5310C), Mecoprop (8151A), & MCPA (8151A).

Definitions and Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%R	Percent Recovery
DL, RA, RE	Indicates a Dilution, Reanalysis or Reextraction.
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit - an estimate of the minimum amount of a substance that an analytical process can reliably detect. A MDL is analyte- and matrix-specific and may be laboratory-dependent.
ND	Not detected at the reporting limit (or MDL if shown).
QC	Quality Control
RL	Reporting Limit - the minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.
RPD	Relative Percent Difference - a measure of the relative difference between two points.

					-													_				—
Enviro Labor	Test atories,	Inc.	CHA	Env	ľoni	est	Lab	orato	ries				12	6	7	2				REPORT# (L	ab Use Only)	
		= - 	Address & Phone	315	rul	erto	n A	venu	e, Nev	vourg	n, Ne	w Yor	к 125	อบ 84	-562	-U890						
	lovewood	PROJECT NO.	PROJECT LOCATION		MAT TYI	RIX PE						REQ	JIRED	ANAL	YSES					PAGE 1 of	1	
	MANAGER bra Bayer	P.O. NUMBER	TOWN					ain	40ml Vials HCL	ım Thio.	um Thio.	Na2SO3	tric Acid	o(liquid)	Liter Plastic	um Hyd.	c Sterile	ic Nitric	Unpres		TURNAROUND TIME	
CLIENT (SITE) PM	SITE) PM CLIENT PHONE LBG, Inc. 203-92		CLIENT FAX	er) Indicate	SOLID OR SEMISOLID		Liter Amber Plain	40mt Vi	40ml Sodium Thio.	250ml Amber Sodium Thio	Liter Amber HCI/Na2SO3	250ml Plastic Nitric Acid	40ml Mon/Sod.Thio(liquid	Liter	250ml Plastic Sodium Hyd	125ml Plastic Sterile	Gallon Plastic Nitric	40ml Vials Unpres	NORMAL			
CLIENT NAME Sta	cy Stieber			AB (G) INC	Afacte Wa			Liter A		4	m! Am	iter Am	50ml Pl			Gal	4	QUICK				
CLIENT ADDRESS				8 G	(EX)						250		~	4	ļ	550				VERBAL		
	ve, Suite 301, Shel	ton, CT 06484		COMPOSITE (C) OR GRAB (G) INDICATE	Chinking Water	R SEMISC	Specify						l	1	l <u> </u>		•		. 	#OF COOLERS		
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333737XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	ABORATORY BY	III DATE	CUSTODY INTACT	Coo	ler T	emp		LABC	RATO	RY RE	MARK	S	ice,	X 7	H	CL2		Reve	wed b	/		
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LOGIN SAMPLE RECEIPT CHECK LIST

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-126731-1

SDG Number: Clovewood

Login Number: 126731

Question	T/F/NA	Comment
Samples were collected by ETL employee as per SOP-SAM-1	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is recorded.	True	2.9 C
Cooler Temp. is within method specified range.(0-6 C PW, 0-8 C NPW, or BAC <10 C	True	
If false, was sample received on ice within 6 hours of collection.	NA	
Based on above criteria cooler temperature is acceptable.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	NA	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

C-23 SEPTEMBER 2017



ANALYTICAL REPORT

Job Number: 420-126741-1 SDG Number: Clovewood Job Description: LBG, Inc.

For:

Leggette, Brashears & Graham, Inc. 4 Research Drive Shelton, CT 06464

Attention: Stacy Stieber

Debra Bayer
Customer Service Manager

dbayer@envirotestlaboratories.com

Subbra Sa

10/03/2017

NYSDOH ELAP does not certify for all parameters. EnviroTest Laboratories does hold certification for all analytes where certification is offered by ELAP unless otherwise specified in the Certification Information section of this report Pursuant to NELAP, this report may not be reproduced, except in full, without written approval of the laboratory. EnviroTest Laboratories Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our laboratory. All questions regarding this report should be directed to the EnviroTest Customer Service Representative.

EnviroTest Laboratories, Inc. Certifications and Approvals: NYSDOH 10142, NJDEP NY015, CTDOPH PH-0554



METHOD SUMMARY

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-126741-1 SDG Number: Clovewood

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Semivolatile Organic Compounds in Drinking Water by GCMS	EnvTest	EPA 525.2	
Determination of Semivolatile Organic Compounds in	EnvTest		EPA 525.2

Lab References:

EnvTest = EnviroTest

Method References:

EPA = US Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-126741-1

SDG Number: Clovewood

Method	Analyst	Analyst ID
EPA 525.2	Labare. Alicia M	AML

SAMPLE SUMMARY

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-126741-1

SDG Number: Clovewood

			Date/Time	Date/Time
Lab Sample ID	Client Sample ID	Client Matrix	Sampled	Received
420-126741-1	C-23	Drinking Water	09/20/2017 1340	09/20/2017 1440

Analytical Data

Client: Leggette, Brashears & Graham, Inc. Job Number: 420-126741-1

Sdg Number: Clovewood

Client Sample ID: C-23

 Lab Sample ID:
 420-126741-1
 Date Sampled:
 09/20/2017
 1340

 Client Matrix:
 Drinking Water
 Date Received:
 09/20/2017
 1440

525.2 Semivolatile Organic Compounds in Drinking Water by GCMS

Method: 525.2 Analysis Batch: 420-114790 Instrument ID: Hewlett Packard 5890

Preparation: 525.2 Prep Batch: 420-114787 Lab File ID: A0927007.D

 Dilution:
 1.0
 Initial Weight/Volume:
 1040 mL

 Date Analyzed:
 09/27/2017 2047
 Final Weight/Volume:
 1 mL

Date Prepared: 09/27/2017 1515 Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL
Benzo[a]pyrene	<0.0192		0.0192
Di(2-ethylhexyl)adipate	<0.0577		0.0577
Bis(2-ethylhexyl) phthalate	<0.0481		0.0481
Metribuzin	<0.0865		0.0865
Aldrin	<0.135		0.135
Surrogate	%Rec		Acceptance Limits
2-Nitro-m-xylene	101		70 - 130
Perylene-d12	116		70 - 130
Triphenylphosphate	121		70 - 130

DATA REPORTING QUALIFIERS

Lab Section Qualifier Description

Certification Information

The following analytes are Not Part of the ELAP scope of accreditation

Sulfur, Tungsten, Silicon, Bicarbonate Alkalinity, 7 Day BOD 5210C, 28 Day BOD, Soluble BOD, Carbon Dioxide, Carbonate Alkalinity, CBOD Soluble, Chlorine, Cyanide (WAD), Ferrous Iron, Ferric Iron, Total Nitrogen, Total Organic Nitrogen, Dissolved Oxygen, pH, Phenolphthalein Alkalinity, Solids (Fixed), Solids (Percent), Solids (Percent Moisture), Solids (Percent Volatile), Solids (Volatile Suspended), Temperature, TKN (Soluble), COD (Soluble), Total Inorganic Carbon, Volatile Acids as Acetic Acid, 2-Aminopyridine, 3-Picoline, 1-Methyl-2-pyrrilidinone, Aziridine, Dimethyl sulfoxide, 1-Chlorohexane, Iron Bacteria, Salmonella, & Sulfur Reducing Bacteria.

The following analytes are Not Part of ELAP Potable Water scope of accreditation

Cobalt (200.7, 200.8), Tin (200.7), Strontium (200.7), Gold (200.7), Platinum (200.7), Palladium (200.7), Titanium (200.7), Phosphorus (365.3), Nitrate-Nitrite (10-107-4-1C, 353.2), m-Xylene & p-Xylene (502.2, 524), Naphthalene (502.2), o-Xylene (502.2, 524), & Fecal Coliform (9222D).

The following analytes are Not Part of ELAP Solid and Hazardous Waste scope of accreditation

Ammonia (SM 4500NH3G), TKN (351.2), Phosphorus (365.3), 1,2-Dichloro-1,1,2-trifluoroethane (8260), & Chlorodifluoromethane (8260).

The following analytes are Not Part of ELAP Non Potable Water scope of accreditation

Dissolved Organic Carbon (5310C), Mecoprop (8151A), & MCPA (8151A).

Definitions and Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%R	Percent Recovery
DL, RA, RE	Indicates a Dilution, Reanalysis or Reextraction.
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit - an estimate of the minimum amount of a substance that an analytical process can reliably detect. A MDL is analyte- and matrix-specific and may be laboratory-dependent.
ND	Not detected at the reporting limit (or MDL if shown).
QC	Quality Control
RL	Reporting Limit - the minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.
RPD	Relative Percent Difference - a measure of the relative difference between two points

Enviro Labor	Test atori	es, li	nc.	CHA Lab Name Address & Phone	Envi	ігоТ	est L	Lab	orato	ries			w Yor	k 125			o 71 -0890	 			REPORT# (L	ab Use Only)
PROJECT REFERENCE	lovewood		PROJECT NO.	PROJECT LOCATION		MATE		П					REQ	JIRED	ANAL	YSES					PAGE 1 of	1
ENVIROTEST PROJECT De			P.O. NUMBER CLIENT PHONE						ain	40ml Vials HCL	ım Thio.	um Thio.	Na2SO3	tric Acid	o(liquid)	Liter Plastic	um Hyd.	c Sterile	tic Nitric	: Unpres		TURNAROUND TIME
CLIENT (SITE) PM L	BG, Inc.		203-929-8555	CLIENT FAX	JICATE	ter) Indicate			Liter Amber Plain	40ml Vi	40ml Sodium Thio	ber Sodit	Liter Amber HCI/Na2SO3	250ml Plastic Nitric Acid	/Sod.Thi	Lite	stic Sodi	125ml Plastic Sterile	Gallon Plastic Nitric	40m1 Vials Unpres	NORMAL	~
	cy Stieber				COMPOSITE (C) OR GRAB (G) INDICATE	V (Waste Wa	SOLID OR SEMISOLID		Liter A		4	250ml Amber Sodium Thio.	Liter An	250ml P	40ml Mon/Sod.Thio(liquid)		250ml Plastic Sodium Hyd	125	Gal	4	QUICK	
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C-23

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Leggette, Brashears & Graham, Inc.

Job Number: 420-126741-1

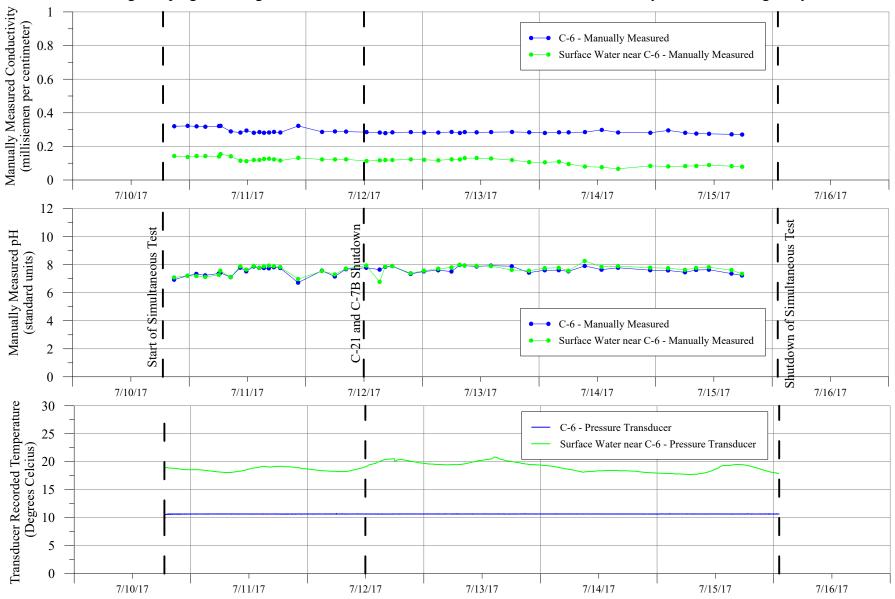
SDG Number: Clovewood

Login Number: 126741

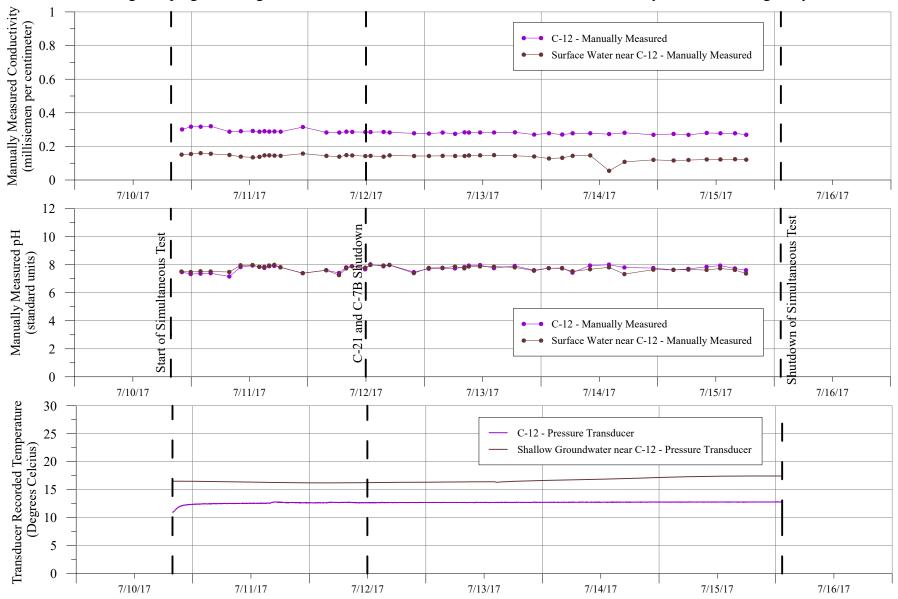
Question	T/F/NA	Comment
Samples were collected by ETL employee as per SOP-SAM-1	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is recorded.	True	2.9 C
Cooler Temp. is within method specified range.(0-6 C PW, 0-8 C NPW, or BAC <10 C	True	
If false, was sample received on ice within 6 hours of collection.	NA	
Based on above criteria cooler temperature is acceptable.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	NA	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

APPENDIX XII

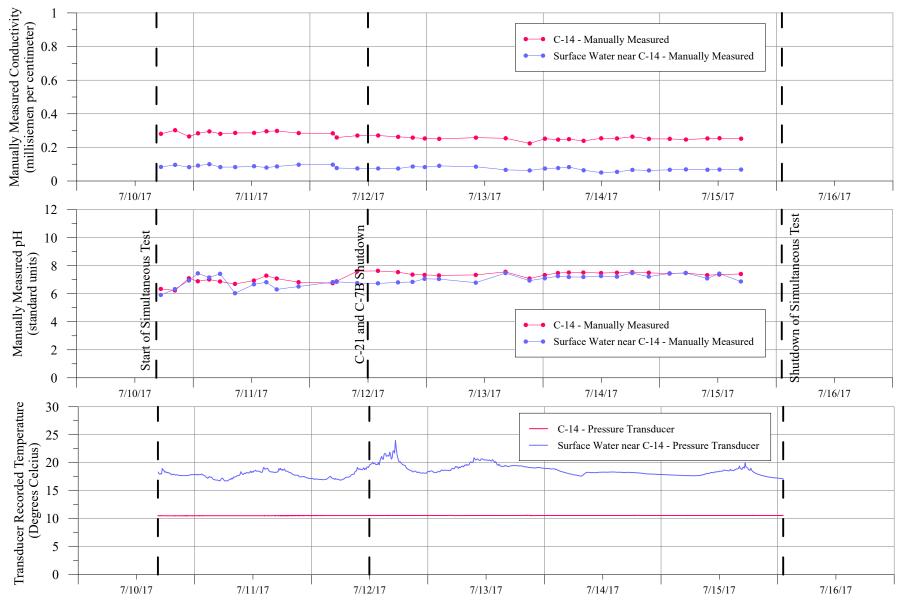
Graphs of Physical Parameter Measurements Collected from Pumping Well C-6 and Surface Water Near Pumping Well C-6 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23, July 10, 2017 Through July 16, 2017



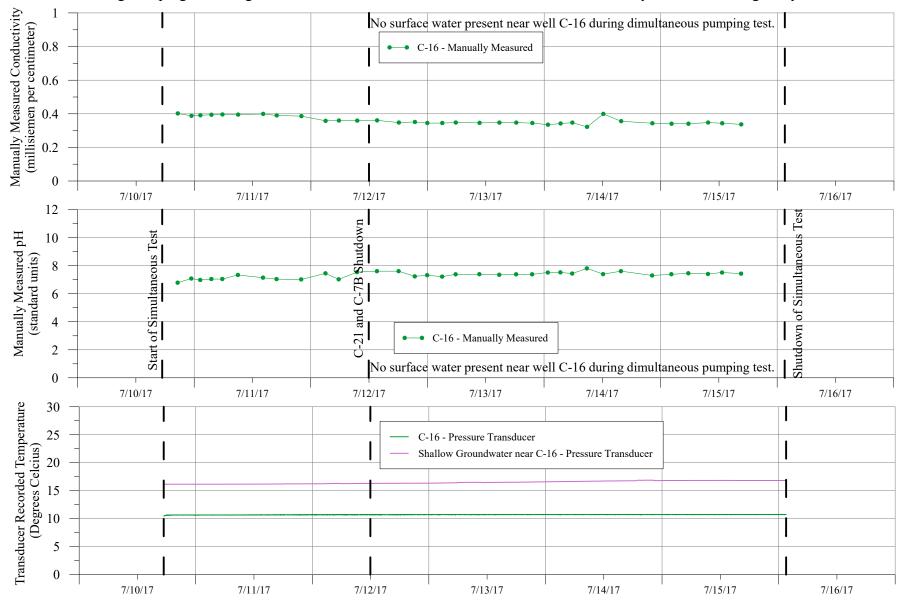
Graphs of Physical Parameter Measurements Collected from Pumping Well C-12 and Surface Water Near Pumping Well C-12 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23, July 10, 2017 Through July 16, 2017



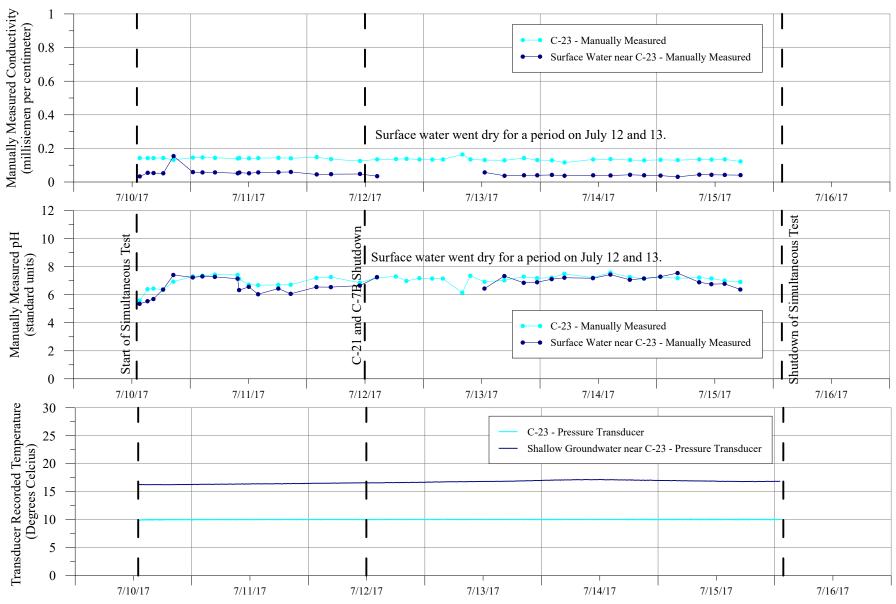
Graphs of Physical Parameter Measurements Collected from Pumping Well C-14 and Surface Water Near Pumping Well C-14 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23, July 10, 2017 Through July 16, 2017



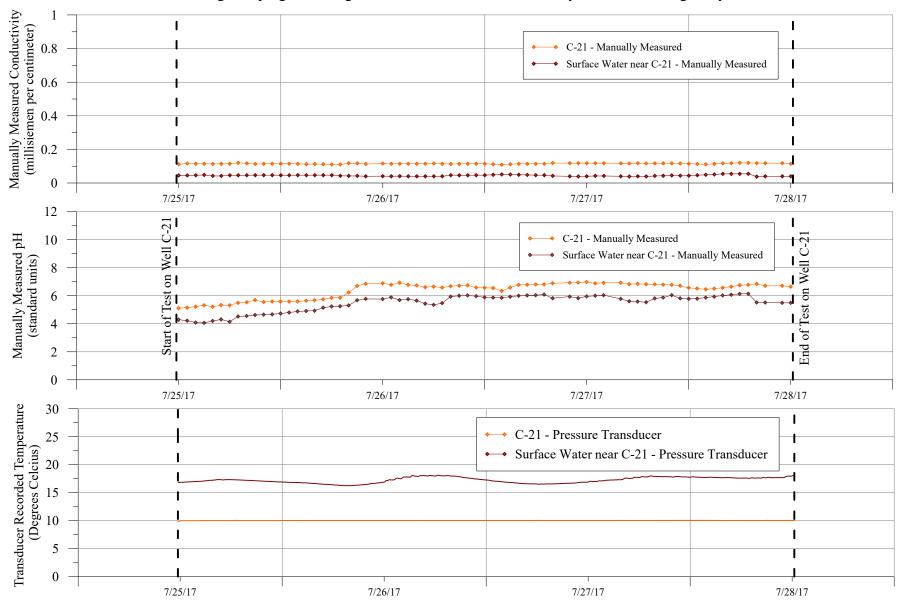
Graphs of Physical Parameter Measurements Collected from Pumping Well C-16 and Surface Water Near Pumping Well C-16 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23, July 10, 2017 Through July 16, 2017



Graphs of Physical Parameter Measurements Collected from Pumping Well C-23 and Surface Water Near Pumping Well C-23 During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23, July 10, 2017 Through July 16, 2017



Graphs of Physical Parameter Measurements Collected from Pumping Well C-21 and Surface Water near Pumping Well C-21 During Pumping Test Program Conducted on Well C-21, July 25, 2017 Through July 28, 2017



Date	Time	pH (S.U.)	Conductivity (mS/cm)	pH (S.U.)	Conductivity (mS/cm)
		С-6 Г	Discharge	Surfac	e Water Near C-6
7/10/2017	20:53	6.93	0.320	7.09	0.143
7/10/2017	23:40	7.21	0.322	7.21	0.137
7/11/2017	1:29	7.34	0.319	7.19	0.142
7/11/2017	3:18	7.24	0.317	7.12	0.142
7/11/2017	6:06	7.37	0.321	7.27	0.140
7/11/2017	6:25	7.42	0.322	7.56	0.154
7/11/2017	8:32	7.11	0.289	7.11	0.141
7/11/2017	10:30	7.79	0.282	7.89	0.115
7/11/2017	11:45	7.52	0.294	7.65	0.112
7/11/2017	13:16	7.87	0.281	7.91	0.119
7/11/2017	14:25	7.77	0.285	7.78	0.119
7/11/2017	15:22	7.76	0.281	7.88	0.125
7/11/2017	16:24	7.74	0.283	7.93	0.127
7/11/2017	17:26	7.82	0.286	7.90	0.123
7/11/2017	18:44	7.76	0.283	7.83	0.116
7/11/2017	22:25	6.72	0.322	6.97	0.132
7/12/2017	3:20	7.57	0.286	7.55	0.122
7/12/2017	5:58	7.16	0.289	7.31	0.122
7/12/2017	8:16	7.68	0.288	7.72	0.123
7/12/2017	12:27	7.78	0.285	7.94	0.113
7/12/2017	15:12	7.65	0.282	6.77	0.117
7/12/2017	16:21	7.84	0.279	7.87	0.119
7/12/2017	17:48	7.90	0.284	7.91	0.119
7/12/2017	21:35	7.34	0.285	7.39	0.123
7/13/2017	0:20	7.52	0.282	7.57	0.120
7/13/2017	3:16	7.60	0.282	7.71	0.117
7/13/2017	5:59	7.51	0.286	7.80	0.123
7/13/2017	7:41	7.97	0.280	7.99	0.122
7/13/2017	8:41	7.94	0.285	7.93	0.130
7/13/2017	11:08	7.87	0.284	7.91	0.131
7/13/2017	14:08	7.93	0.285	7.90	0.128
7/13/2017	18:25	7.89	0.286	7.63	0.119
7/13/2017	21:57	7.43	0.284	7.57	0.106
7/14/2017	1:11	7.60	0.280	7.75	0.105
7/14/2017	4:05	7.61	0.284	7.78	0.109
7/14/2017	6:05	7.53	0.284	7.57	0.095
7/14/2017	9:26	7.91	0.285	8.27	0.080
7/14/2017	12:54	7.64	0.298	7.85	0.076
7/14/2017	16:16	7.78	0.283	7.90	0.067
7/14/2017	22:53	7.61	0.281	7.78	0.084
7/15/2017	2:35	7.59	0.295	7.75	0.081
7/15/2017	6:04	7.46	0.281	7.63	0.083
7/15/2017	8:22	7.62	0.276	7.76	0.084
7/15/2017	10:59	7.64	0.275	7.82	0.089
7/15/2017	15:38	7.36	0.272	7.61	0.082
7/15/2017	17:48	7.23	0.270	7.35	0.079

-

Date	Time	pH (S.U.)	Conductivity (mS/cm)	pH (S.U.)	Conductivity (mS/cm)
		C-12 l	Discharge	Surfac	e Water Near C-12
7/10/2017	22:06	7.47	0.301	7.51	0.151
7/10/2017	23:55	7.33	0.317	7.48	0.155
7/11/2017	1:55	7.36	0.317	7.53	0.160
7/11/2017	4:00	7.39	0.320	7.51	0.156
7/11/2017	7:50	7.16	0.287	7.48	0.149
7/11/2017	10:10	7.83	0.290	7.96	0.139
7/11/2017	12:38	7.94	0.292	7.97	0.135
7/11/2017	14:01	7.85	0.287	7.84	0.138
7/11/2017	15:03	7.77	0.290	7.85	0.147
7/11/2017	16:03	7.89	0.288	7.94	0.147
7/11/2017	17:06	7.91	0.289	7.99	0.145
7/11/2017	18:23	7.82	0.287	7.81	0.144
7/11/2017	22:58	7.40	0.315	7.39	0.157
7/12/2017	3:48	7.60	0.283	7.60	0.144
7/12/2017	6:27	7.41	0.282	7.25	0.139
7/12/2017	7:55	7.81	0.287	7.73	0.148
7/12/2017 7/12/2017	9:07 11:50	7.90	0.286 0.285	7.88	0.146 0.142
7/12/2017	12:53	7.67 8.03	0.285	7.79 7.98	0.144
7/12/2017	15:35	7.88	0.286	7.94	0.139
7/12/2017	16:49	7.98	0.283	7.97	0.139
7/12/2017	21:50	7.47	0.283	7.40	0.147
7/13/2017	0:54	7.71	0.276	7.77	0.143
7/13/2017	3:44	7.75	0.282	7.78	0.144
7/13/2017	6:18	7.73	0.275	7.87	0.143
7/13/2017	8:14	7.83	0.284	7.74	0.143
7/13/2017	9:09	7.93	0.282	7.86	0.146
7/13/2017	11:28	7.97	0.283	7.87	0.147
7/13/2017	14:20	7.75	0.283	7.86	0.148
7/13/2017	18:37	7.91	0.284	7.81	0.144
7/13/2017	22:34	7.61	0.270	7.57	0.140
7/14/2017	1:36	7.75	0.278	7.75	0.128
7/14/2017	4:21	7.76	0.270	7.73	0.132
7/14/2017	6:29	7.43	0.278	7.53	0.144
7/14/2017	10:06	7.94	0.278	7.67	0.146
7/14/2017	14:00	8.00	0.273	7.81	0.055
7/14/2017	17:11	7.80	0.281	7.33	0.108
7/14/2017	23:08	7.76	0.269	7.64	0.120
7/15/2017	3:17	7.63	0.274	7.63	0.116
7/15/2017	6:20	7.70	0.269	7.65	0.119
7/15/2017	10:06	7.85	0.280	7.62	0.122
7/15/2017	12:54	7.93	0.278	7.73	0.122
7/15/2017	15:55	7.73	0.278	7.62	0.124
7/15/2017	18:13	7.60	0.269	7.37	0.121

Date	Time	pH (S.U.)	Conductivity (mS/cm)	pH (S.U.)	Conductivity (mS/cm)
		C-14 I	Discharge	Surface V	Vater Near Well C-14
7/10/2017	17:20	6.34	0.281	5.91	0.084
7/10/2017	20:15	6.23	0.302	6.33	0.096
7/10/2017	23:07	7.10	0.265	6.94	0.082
7/11/2017	0:58	6.89	0.284	7.45	0.092
7/11/2017	3:18	7.01	0.295	7.16	0.100
7/11/2017	5:33	6.87	0.281	7.42	0.083
7/11/2017	8:37	6.70	0.286	6.03	0.083
7/11/2017	12:30	6.94	0.286	6.67	0.088
7/11/2017	15:03	7.29	0.296	6.82	0.080
7/11/2017	17:13	7.08	0.298	6.31	0.087
7/11/2017	21:42	6.82	0.285	6.51	0.097
7/12/2017	4:43	6.75	0.284	6.83	0.097
7/12/2017	5:31	6.88	0.259	6.85	0.077
7/12/2017	9:46	7.61	0.270	6.76	0.075
7/12/2017	14:02	7.63	0.271	6.74	0.075
7/12/2017	18:10	7.54	0.263	6.81	0.074
7/12/2017	21:09	7.36	0.258	6.84	0.086
7/12/2017	23:39	7.34	0.253	7.06	0.083
7/13/2017	2:36	7.31	0.251	7.05	0.090
7/13/2017	10:10	7.34	0.258	6.79	0.085
7/13/2017	16:18	7.56	0.254	7.47	0.066
7/13/2017	21:15	7.08	0.224	6.94	0.063
7/14/2017	0:23	7.33	0.252	7.10	0.074
7/14/2017	3:05	7.48	0.246	7.25	0.077
7/14/2017	5:19	7.51	0.249	7.19	0.083
7/14/2017	8:20	7.51	0.239	7.19	0.064
7/14/2017	11:58	7.48	0.254	7.26	0.050
7/14/2017	15:13	7.50	0.253	7.21	0.054
7/14/2017	18:23	7.54	0.264	7.47	0.066
7/14/2017	21:47	7.49	0.251	7.22	0.063
7/15/2017	2:04	7.44	0.251	7.45	0.067
7/15/2017	5:23	7.48	0.247	7.48	0.069
7/15/2017	9:49	7.32	0.253	7.09	0.067
7/15/2017	12:18	7.37	0.255	7.43	0.068
7/15/2017	16:45	7.41	0.252	6.87	0.068

Date	Time	pH (S.U.)	Conductivity (mS/cm)	pH (S.U.)	Conductivity (mS/cm)
		C-16 l	Discharge	No Surface	Present Near Well C-16
7/10/2017	20:36	6.79	0.402		
7/10/2017	23:24	7.08	0.388		
7/11/2017	1:15	6.98	0.391		
7/11/2017	3:32	7.05	0.394		
7/11/2017	5:47	7.05	0.396		
7/11/2017	9:00	7.34	0.395		
7/11/2017	14:10	7.14	0.399		
7/11/2017	16:57	7.04	0.390		
7/11/2017	22:02	7.02	0.386		
7/12/2017	3:02	7.45	0.358		
7/12/2017	5:45	7.03	0.360		
7/12/2017	9:32	7.54	0.359		
7/12/2017	13:37	7.61	0.361		
7/12/2017	18:05	7.61	0.348		
7/12/2017	21:25	7.24	0.351		
7/12/2017	23:58	7.32	0.345		
7/13/2017	3:02	7.22	0.345		
7/13/2017	5:50	7.38	0.348		
7/13/2017	10:43	7.39	0.346		
7/13/2017	14:48	7.35	0.347		
7/13/2017	18:16	7.38	0.347		
7/13/2017	21:35	7.38	0.345		
7/14/2017	0:48	7.51	0.335		
7/14/2017	3:23	7.52	0.342		
7/14/2017	5:49	7.44	0.347		
7/14/2017	8:50	7.81	0.322		
7/14/2017	12:11	7.40	0.399		
7/14/2017	15:51	7.61	0.356		
7/14/2017	22:17	7.30	0.344		
7/15/2017	2:14	7.39	0.341		
7/15/2017	5:42	7.46	0.341		
7/15/2017	9:46	7.41	0.348		
7/15/2017	12:40	7.51	0.344		
7/15/2017	16:35	7.43	0.337		

Date	Time	pH (S.U.) Conductivity (mS/cm)		pH (S.U.)	Conductivity (mS/cm)
		C-21 l	Discharge	Surface V	Vater Near Well C-21
7/25/2017	12:00	5.11	0.112	4.29	0.045
7/25/2017	13:00	5.15	0.116	4.22	0.045
7/25/2017	14:00	5.22	0.115	4.09	0.046
7/25/2017	15:00	5.32	0.115	4.06	0.048
7/25/2017	16:00	5.21	0.113	4.20	0.042
7/25/2017	17:00	5.33	0.114	4.31	0.042
7/25/2017	18:00	5.32	0.115	4.14	0.046
7/25/2017	19:00	5.49	0.120	4.52	0.046
7/25/2017	20:00	5.53	0.117	4.55	0.046
7/25/2017	21:00	5.69	0.113	4.62	0.047
7/25/2017	22:00	5.55	0.114	4.65	0.047
7/25/2017	23:00	5.59	0.115	4.67	0.047
7/26/2017	0:00	5.58	0.115	4.73	0.046
7/26/2017	1:00	5.58	0.115	4.80	0.046
7/26/2017	2:00	5.59	0.114	4.88	0.047
7/26/2017	3:00	5.64	0.112	4.91	0.047
7/26/2017	4:00	5.68	0.113	4.93	0.047
7/26/2017	5:00	5.74	0.112	5.15	0.047
7/26/2017	6:00	5.85	0.110	5.23	0.047
7/26/2017	7:00	5.86	0.110	5.25	0.043
7/26/2017	8:00	6.23	0.118	5.31	0.042
7/26/2017	9:00	6.70	0.117	5.68	0.042
7/26/2017	10:00	6.85	0.113	5.77	0.040
7/26/2017	12:00	6.89	0.116	5.76	0.041
7/26/2017	13:00	6.78	0.114	5.88	0.040
7/26/2017	14:00	6.93	0.115	5.69	0.041
7/26/2017	15:00	6.77	0.115	5.75	0.040
7/26/2017	16:00	6.73	0.115	5.65	0.040
7/26/2017	17:00	6.61	0.115	5.43	0.040
7/26/2017	18:00	6.65	0.116	5.35	0.040
7/26/2017	19:00	6.58	0.114	5.47	0.040
7/26/2017	20:00	6.68	0.113	5.94	0.047
7/26/2017	21:00	6.71	0.114	6.00	0.046
7/26/2017	22:00	6.74	0.114	6.02	0.046
7/26/2017	23:00	6.59	0.115	5.97	0.047
7/27/2017	0:00	6.57	0.115	5.88	0.047
7/27/2017	1:00	6.55	0.112	5.87	0.049
7/27/2017	2:00	6.34	0.109	5.85	0.051
7/27/2017	3:00	6.58	0.112	5.93	0.050
7/27/2017	4:00	6.77	0.114	6.00	0.049
7/27/2017	5:00	6.78	0.114	6.02	0.048
7/27/2017	6:00	6.80	0.114	6.04	0.047
7/27/2017	7:00	6.81	0.114	6.08	0.047
7/27/2017	8:00	6.89	0.119	5.82	0.042
7/27/2017	10:00	6.93	0.118	5.94	0.040
7/27/2017	11:00	6.94	0.118	5.83	0.039
7/27/2017	12:00	6.98	0.118	5.95	0.040
7/27/2017	13:00	6.88	0.118	6.00	0.042
7/27/2017	14:00	6.92	0.118	6.04	0.042

Date	Time	pH (S.U.)	Conductivity (mS/cm)	pH (S.U.)	Conductivity (mS/cm)
		C-21 Discharge (continued)		Surface V	Water Near Well C-21 (continued)
7/27/2017	16:00	6.93	0.117	5.77	0.040
7/27/2017	17:00	6.83	0.116	5.60	0.039
7/27/2017	18:00	6.85	0.118	5.58	0.040
7/27/2017	19:00	6.82	0.116	5.53	0.039
7/27/2017	20:00	6.81	0.117	5.81	0.042
7/27/2017	21:00	6.79	0.117	5.87	0.043
7/27/2017	22:00	6.77	0.117	6.04	0.045
7/27/2017	23:00	6.71	0.116	5.81	0.044
7/28/2017	0:00	6.56	0.115	5.77	0.044
7/28/2017	1:00	6.51	0.113	5.79	0.047
7/28/2017	2:00	6.46	0.111	5.87	0.049
7/28/2017	3:00	6.51	0.114	5.94	0.051
7/28/2017	4:00	6.56	0.117	6.02	0.054
7/28/2017	5:00	6.64	0.118	6.07	0.054
7/28/2017	6:00	6.75	0.120	6.13	0.054
7/28/2017	7:00	6.77	0.120	6.14	0.055
7/28/2017	8:00	6.85	0.118	5.52	0.038
7/28/2017	9:00	6.70	0.118	5.51	0.040
7/28/2017	11:00	6.71	0.118	5.49	0.040
7/28/2017	12:00	6.65	0.114	5.49	0.040

Physical Parameter Measurements of pH, Conductivity and Total Dissolved Solids Collected from the Pumping Well Discharge Water and Nearby Surface Water During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	pH (S.U.)	Conductivity (mS/cm)	pH (S.U.)	Conductivity (mS/cm)
		We	ell C-23	Surface V	Vater Near Well C-23
7/10/2017	13:35	5.57	0.143	7.23	0.059
7/10/2017	15:13	6.39	0.142	7.31	0.057
7/10/2017	16:26	6.44	0.142	7.27	0.057
7/10/2017	18:25	6.35	0.143	7.14	0.052
7/10/2017	20:32	6.93	0.132	6.33	0.056
7/11/2017	0:32	7.31	0.145	6.56	0.052
7/11/2017	2:30	7.35	0.146	6.03	0.057
7/11/2017	5:04	7.43	0.144	6.44	0.058
7/11/2017	9:45	7.41	0.140	6.06	0.060
7/11/2017	10:05	7.13	0.143	6.55	0.045
7/11/2017	12:04	6.72	0.141	6.54	0.047
7/11/2017	13:59	6.68	0.142	6.65	0.048
7/11/2017	18:08	6.70	0.144	7.25	0.035
7/11/2017	20:41	6.71	0.141	Dry	Dry
7/12/2017	2:00	7.20	0.148	Dry	Dry
7/12/2017	4:58	7.26	0.136	Dry	Dry
7/12/2017	10:55	6.86	0.125	Dry	Dry
7/12/2017	14:27	7.22	0.135	Dry	Dry
7/12/2017	18:20	7.30	0.136	Dry	Dry
7/12/2017	20:30	6.98	0.138	Dry	Dry
7/12/2017	23:10	7.18	0.134	6.44	0.057
7/13/2017	1:49	7.15	0.133	7.33	0.037
7/13/2017	4:00	7.15	0.134	6.85	0.040
7/13/2017	8:00	6.14	0.164	6.89	0.040
7/13/2017	9:40	7.35	0.134	7.11	0.042
7/13/2017	12:35	6.92	0.131	7.21	0.037
7/13/2017	16:40	7.03	0.129	7.18	0.040
7/13/2017	20:40	7.29	0.142	7.44	0.039
7/13/2017	23:25	7.18	0.131	7.07	0.043
7/14/2017	2:25	7.21	0.129	7.16	0.040
7/14/2017	5:02	7.49	0.116	7.29	0.038
7/14/2017	10:55	7.22	0.134	7.55	0.031
7/14/2017	14:29	7.58	0.136	6.89	0.044
7/14/2017	18:30	7.25	0.131	6.75	0.043
7/14/2017	21:24	7.15	0.129	6.78	0.042
7/15/2017	0:47	7.26	0.132	6.37	0.041
7/15/2017	4:19	7.18	0.130	7.23	0.059
7/15/2017	8:46	7.22	0.134	7.31	0.057
7/15/2017	11:17	7.16	0.133	7.27	0.057
7/15/2017	14:00	7.00	0.135	7.14	0.052
7/15/2017	17:15	6.91	0.122	6.33	0.056

S.U. standard units

mS/cm millisiemen per centimeter

 $K: \label{lower} Lake\ Anne \ Clovewood \ 2017 \ Report \ Physical\ Parameter\ Table. doc$

Date	Time	Temperature (degrees Celsius) Well C-6	Temperature (degrees Celsius) Surface Water Near Well C-6	Date	Time	Temperature (degrees Celsius) Well C-12	Temperature (degrees Celsius) Piezometer Shallow Groundwater Near Well C-12 ^{1/2}
7/10/2017	19:00	10.58	18.97	7/10/2017	20:00	11.03	16.53
7/10/2017	20:00	10.62	18.85	7/10/2017	21:00	11.84	16.51
7/10/2017	21:00	10.65	18.76	7/10/2017	22:00	12.18	16.50
7/10/2017	22:00	10.64	18.66	7/10/2017	23:00	12.34	16.49
7/10/2017	23:00	10.65	18.57	7/11/2017	0:00	12.40	16.48
7/11/2017	0:00	10.66	18.57	7/11/2017	1:00	12.43	16.47
7/11/2017	1:00	10.65	18.57	7/11/2017	2:00	12.46	16.47
7/11/2017	2:00	10.66	18.53	7/11/2017	3:00	12.47	16.46
7/11/2017	3:00	10.64	18.45	7/11/2017	4:00	12.46	16.45
7/11/2017	4:00	10.64	18.33	7/11/2017	5:00	12.49	16.44
7/11/2017	5:00	10.66	18.23	7/11/2017	6:00	12.53	16.43
7/11/2017	6:00	10.65	18.16	7/11/2017	7:00	12.51	16.42
7/11/2017	7:00	10.66	18.08	7/11/2017	8:00	12.53	16.42
7/11/2017	8:00	10.63	18.07	7/11/2017	9:00	12.53	16.41
7/11/2017	9:00	10.66	18.19	7/11/2017	10:00	12.51	16.39
7/11/2017	10:00	10.63	18.30	7/11/2017	11:00	12.59	16.38
7/11/2017	11:00	10.65	18.48	7/11/2017	12:00	12.56	16.36
7/11/2017	12:00	10.65	18.67	7/11/2017	13:00	12.56	16.35
7/11/2017	13:00	10.66	18.87	7/11/2017	14:00	12.60	16.33
7/11/2017	14:00	10.63	18.99	7/11/2017	15:00	12.57	16.32
7/11/2017	15:00	10.65	19.17	7/11/2017	16:00	12.59	16.30
7/11/2017	16:00	10.63	19.06	7/11/2017	17:00	12.81	16.28
7/11/2017	17:00	10.66	19.11	7/11/2017	18:00	12.77	16.27
7/11/2017	18:00	10.66	19.17	7/11/2017	19:00	12.69	16.25
7/11/2017	19:00	10.64	19.13	7/11/2017	20:00	12.70	16.24
7/11/2017	20:00	10.64	19.11	7/11/2017	21:00	12.70	16.23
7/11/2017	21:00	10.64	19.01	7/11/2017	22:00	12.63	16.23
7/11/2017	22:00	10.67	18.95	7/11/2017	23:00	12.67	16.22
7/11/2017	23:00	10.63	18.74	7/12/2017	0:00	12.64	16.21
7/12/2017	0:00	10.65	18.71	7/12/2017	1:00	12.64	16.21
7/12/2017	1:00	10.65	18.60	7/12/2017	2:00	12.68	16.21
7/12/2017	2:00	10.68	18.47	7/12/2017	3:00	12.67	16.21
7/12/2017	3:00	10.64	18.39	7/12/2017	4:00	12.72	16.22
7/12/2017	4:00	10.67	18.34	7/12/2017	5:00	12.73	16.22
7/12/2017	5:00	10.66	18.27	7/12/2017	6:00	12.69	16.22
7/12/2017	6:00	10.75	18.25	7/12/2017	7:00	12.73	16.23
7/12/2017	7:00	10.66	18.23	7/12/2017	8:00	12.75	16.23
7/12/2017	8:00	10.66	18.26	7/12/2017	9:00	12.73	16.24
7/12/2017	9:00	10.64	18.40	7/12/2017	10:00	12.67	16.25
7/12/2017	10:00	10.63	18.63	7/12/2017	11:00	12.68	16.26
7/12/2017	11:00	10.65	18.85	7/12/2017	12:00	12.66	16.26
7/12/2017	12:00	10.64	19.12	7/12/2017	13:00	12.69	16.27
7/12/2017	13:00	10.67	19.53	7/12/2017	14:00	12.67	16.28
7/12/2017	14:00	10.64	19.69	7/12/2017	15:00	12.69	16.28
7/12/2017	15:00	10.63	20.10	7/12/2017	16:00	12.69	16.29
7/12/2017	16:00	10.65	20.37	7/12/2017	17:00	12.71	16.29
7/12/2017	17:00	10.66	20.46	7/12/2017	18:00	12.67	16.30
7/12/2017	18:00	10.64	20.40	7/12/2017	19:00	12.72	16.31
7/12/2017	19:00	10.65	20.36	7/12/2017	20:00	12.71	16.31
7/12/2017	20:00	10.66	20.30	7/12/2017	21:00	12.71	16.32
7/12/2017	21:00	10.65	20.30	7/12/2017	22:00	12.72	16.32
7/12/2017	22:00	10.66	19.97	7/12/2017	23:00	12.70	16.33
//12/201/	22:00	10.00	19.9/	//12/201/	∠3:00	12./1	10.33

Date	Time	Temperature (degrees Celsius) Well C-6	Temperature (degrees Celsius) Surface Water Near Well C-6	Date	Time	Temperature (degrees Celsius) Well C-12	Temperature (degrees Celsius) Piezometer Shallow Groundwater Near Well C-12 ^{1/2}
7/12/2017	23:00	10.63	19.82	7/13/2017	0:00	12.71	16.33
7/13/2017	0:00	10.65	19.69	7/13/2017	1:00	12.72	16.34
7/13/2017	1:00	10.67	19.58	7/13/2017	2:00	12.71	16.35
7/13/2017	2:00	10.67	19.56	7/13/2017	3:00	12.72	16.35
7/13/2017	3:00	10.67	19.53	7/13/2017	4:00	12.70	16.36
7/13/2017	4:00	10.66	19.47	7/13/2017	5:00	12.70	16.37
7/13/2017	5:00	10.66	19.44	7/13/2017	6:00	12.71	16.37
7/13/2017	6:00	10.68	19.45	7/13/2017	7:00	12.72	16.38
7/13/2017	7:00	10.64	19.51	7/13/2017	8:00	12.71	16.39
7/13/2017	8:00	10.64	19.59	7/13/2017	9:00	12.72	16.39
7/13/2017	9:00	10.66	19.74	7/13/2017	10:00	12.73	16.40
7/13/2017	10:00	10.66	19.97	7/13/2017	11:00	12.72	16.40
7/13/2017	11:00	10.66	20.14	7/13/2017	12:00	12.72	16.41
7/13/2017	12:00	10.67	20.24	7/13/2017	13:00	12.73	16.41
7/13/2017	13:00	10.64	20.39	7/13/2017	14:00	12.73	16.41
7/13/2017	14:00	10.64	20.52	7/13/2017	15:00	12.75	16.34
7/13/2017	15:00	10.69	20.77	7/13/2017	16:00	12.72	16.40
7/13/2017	16:00	10.68	20.42	7/13/2017	17:00	12.75	16.44
7/13/2017	17:00	10.64	20.15	7/13/2017	18:00	12.72	16.48
7/13/2017	18:00	10.63	20.05	7/13/2017	19:00	12.73	16.51
7/13/2017	19:00	10.62	19.85	7/13/2017	20:00	12.75	16.54
7/13/2017	20:00	10.67	19.70	7/13/2017	21:00	12.72	16.57
7/13/2017	21:00	10.65	19.56	7/13/2017	22:00	12.74	16.59
7/13/2017	22:00	10.67	19.47	7/13/2017	23:00	12.74	16.61
7/13/2017	23:00	10.66	19.44	7/14/2017	0:00	12.76	16.63
7/14/2017	0:00	10.63	19.39	7/14/2017	1:00	12.74	16.66
7/14/2017	1:00	10.65	19.27	7/14/2017	2:00	12.74	16.68
7/14/2017	2:00	10.66	19.21	7/14/2017	3:00	12.74	16.70
7/14/2017	3:00	10.65	19.10	7/14/2017	4:00	12.74	16.72
7/14/2017	4:00	10.65	18.94	7/14/2017	5:00	12.77	16.73
7/14/2017	5:00	10.67	18.74	7/14/2017	6:00	12.75	16.75
7/14/2017	6:00	10.66	18.62	7/14/2017	7:00	12.75	16.77
7/14/2017	7:00	10.66	18.43	7/14/2017	8:00	12.76	16.78
7/14/2017	8:00	10.64	18.22	7/14/2017	9:00	12.78	16.81
7/14/2017	9:00	10.65	18.17	7/14/2017	10:00	12.75	16.83
7/14/2017	10:00	10.64	18.24	7/14/2017	11:00	12.73	16.85
7/14/2017	11:00	10.65	18.31	7/14/2017	12:00	12.73	16.87
7/14/2017	12:00	10.66	18.36	7/14/2017	13:00	12.77	16.89
7/14/2017	13:00	10.67	18.37	7/14/2017	14:00	12.77	16.91
7/14/2017	14:00	10.66	18.42	7/14/2017	15:00	12.77	16.93
7/14/2017	15:00	10.66	18.43	7/14/2017	16:00	12.76	16.96
7/14/2017							16.98
7/14/2017	16:00	10.65 10.66	18.40 18.39	7/14/2017	17:00	12.77 12.77	17.01
7/14/2017	17:00 18:00	10.66	18.36	7/14/2017 7/14/2017	18:00 19:00	12.77	17.01
	19:00				20:00		17.06
7/14/2017 7/14/2017		10.66	18.31 18.23	7/14/2017		12.78	17.09
	20:00	10.65 10.64	18.23	7/14/2017	21:00	12.78 12.76	17.09
7/14/2017			18.13	7/14/2017	22:00		
7/14/2017	22:00	10.65		7/14/2017		12.81	17.15
7/14/2017	23:00	10.66	17.99	7/15/2017	0:00	12.81	17.18
7/15/2017	0:00	10.64	17.96	7/15/2017	1:00	12.78	17.20
7/15/2017	1:00	10.66	17.94	7/15/2017	2:00	12.76	17.23
7/15/2017	2:00	10.65	17.89	7/15/2017	3:00	12.77	17.25

Date	Time	Temperature (degrees Celsius) Well C-6	Temperature (degrees Celsius) Surface Water Near Well C-6	Date	Time	Temperature (degrees Celsius) Well C-12	Temperature (degrees Celsius) Piezometer Shallow Groundwater Near Well C-12 ¹¹
7/15/2017	3:00	10.67	17.87	7/15/2017	4:00	12.77	17.27
7/15/2017	4:00	10.66	17.82	7/15/2017	5:00	12.79	17.29
7/15/2017	5:00	10.65	17.79	7/15/2017	6:00	12.79	17.31
7/15/2017	6:00	10.66	17.75	7/15/2017	7:00	12.80	17.33
7/15/2017	7:00	10.67	17.74	7/15/2017	8:00	12.79	17.35
7/15/2017	8:00	10.64	17.74	7/15/2017	9:00	12.78	17.36
7/15/2017	9:00	10.63	17.87	7/15/2017	10:00	12.78	17.37
7/15/2017	10:00	10.66	18.06	7/15/2017	11:00	12.79	17.39
7/15/2017	11:00	10.63	18.32	7/15/2017	12:00	12.80	17.40
7/15/2017	12:00	10.63	18.71	7/15/2017	13:00	12.78	17.41
7/15/2017	13:00	10.67	19.15	7/15/2017	14:00	12.76	17.42
7/15/2017 7/15/2017	14:00 15:00	10.64 10.64	19.32 19.35	7/15/2017 7/15/2017	15:00	12.78 12.77	17.42 17.43
7/15/2017	16:00	10.65	19.33	7/15/2017	16:00 17:00	12.77	17.43
7/15/2017	17:00	10.65	19.46	7/15/2017	18:00	12.79	17.43
7/15/2017	18:00	10.64	19.49	7/15/2017	19:00	12.81	17.44
7/15/2017	19:00	10.64	19.40	7/15/2017	20:00	12.78	17.44
7/15/2017	20:00	10.64	19.02	7/15/2017	21:00	12.80	17.44
7/15/2017	21:00	10.68	18.76	7/15/2017	22:00	12.80	17.44
7/15/2017	22:00	10.63	18.46	7/15/2017	23:00	12.81	17.44
7/15/2017	23:00	10.64	18.22	7/16/2017	0:00	12.80	17.44
7/16/2017	0:00	10.64	18.02				
Date	Time	Temperature (degrees Celsius)	Temperature (degrees Celsius) Surface Water Near	Date	Time	Temperature (degrees Celsius)	Temperature (degrees Celsius) Piezometer
		Well C-14	Well C-14			Well C-16	Shallow Groundwater Near Well C-16 ¹ /
7/10/2017	17:00	Well C-14 10.52		7/10/2017	18:00	Well C-16	
7/10/2017 7/10/2017	17:00 18:00		Well C-14	7/10/2017 7/10/2017	18:00 19:00		Near Well C-16 ^{1/}
		10.52	Well C-14 17.99			10.63	Near Well C-16 ^{1/} 16.16
7/10/2017	18:00	10.52 10.51	Well C-14 17.99 18.27	7/10/2017	19:00 20:00 20:00	10.63 10.63 10.62 10.62	Near Well C-16 ^{1/} 16.16 16.16
7/10/2017 7/10/2017	18:00 19:00	10.52 10.51 10.52 10.52 10.52	Well C-14 17.99 18.27 17.87 17.79 17.70	7/10/2017 7/10/2017	19:00 20:00 20:00 21:00	10.63 10.63 10.62 10.62 10.66	Near Well C-16 ^{1/} 16.16 16.16 16.16
7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017	18:00 19:00 20:00 20:00 21:00	10.52 10.51 10.52 10.52 10.52 10.52	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017	19:00 20:00 20:00 21:00 22:00	10.63 10.63 10.62 10.62 10.66 10.66	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16
7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017	18:00 19:00 20:00 20:00 21:00 22:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017	19:00 20:00 20:00 21:00 22:00 23:00	10.63 10.63 10.62 10.62 10.66 10.66	16.16 16.16 16.16 16.16 16.16 16.16 16.16
7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017	18:00 19:00 20:00 20:00 21:00 22:00 23:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52 10.52	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82 17.84	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017	19:00 20:00 20:00 21:00 22:00 23:00 0:00	10.63 10.63 10.62 10.62 10.66 10.66 10.65 10.62	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16
7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017	18:00 19:00 20:00 20:00 21:00 22:00 23:00 0:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52 10.52 10.52 10.53	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82 17.84 17.87	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017	19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00	10.63 10.63 10.62 10.62 10.66 10.66 10.65 10.62 10.66	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16
7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017	18:00 19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52 10.52 10.52 10.53 10.53	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82 17.84 17.87 17.61	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017	19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00	10.63 10.63 10.62 10.62 10.66 10.66 10.65 10.62 10.66 10.65	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.15
7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017	18:00 19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52 10.52 10.53 10.53	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82 17.84 17.87 17.61	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00	10.63 10.63 10.62 10.62 10.66 10.66 10.65 10.62 10.66 10.65 10.65	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16
7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	18:00 19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52 10.52 10.53 10.53 10.53 10.53	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82 17.84 17.87 17.61 17.42 16.93	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00 4:00	10.63 10.63 10.62 10.62 10.66 10.65 10.65 10.62 10.66 10.65 10.65 10.64	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16
7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	18:00 19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00 4:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52 10.52 10.53 10.53 10.53 10.53 10.53	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82 17.84 17.87 17.61 17.42 16.93 16.76	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00 4:00 5:00	10.63 10.63 10.62 10.62 10.66 10.65 10.65 10.65 10.65 10.65 10.65 10.65	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16
7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	18:00 19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00 4:00 5:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52 10.52 10.53 10.53 10.53 10.53 10.53 10.53	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82 17.84 17.87 17.61 17.42 16.93 16.76 16.76	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00	10.63 10.63 10.62 10.62 10.66 10.66 10.65 10.62 10.66 10.65 10.65 10.65 10.65	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.15 16.16 16.16 16.16 16.16 16.16
7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	18:00 19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52 10.52 10.53 10.53 10.53 10.53 10.53 10.53 10.53	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82 17.84 17.87 17.61 17.42 16.93 16.76 16.76 16.99	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	19:00 20:00 20:00 21:00 22:00 22:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00	10.63 10.63 10.62 10.62 10.66 10.65 10.65 10.65 10.65 10.65 10.65 10.65 10.65	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.15 16.16 16.16 16.16 16.16 16.16 16.16
7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	18:00 19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52 10.52 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82 17.84 17.87 17.61 17.42 16.93 16.76 16.76 16.99 17.41	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	19:00 20:00 20:00 21:00 22:00 22:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00	10.63 10.63 10.62 10.62 10.66 10.66 10.65 10.65 10.65 10.65 10.65 10.65 10.65 10.65 10.65	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.11 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.17
7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	18:00 19:00 20:00 20:00 21:00 22:00 22:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52 10.52 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82 17.84 17.87 17.61 17.42 16.93 16.76 16.76 16.99 17.41 17.71	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	19:00 20:00 20:00 21:00 22:00 22:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00	10.63 10.63 10.62 10.62 10.66 10.66 10.65 10.65 10.64 10.65 10.65 10.65 10.65 10.66 10.66	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.17 16.17
7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	18:00 19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52 10.52 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82 17.84 17.87 17.61 17.42 16.93 16.76 16.76 16.99 17.41 17.71 18.05	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017 7/11/2017	19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00	10.63 10.63 10.62 10.62 10.66 10.66 10.65 10.65 10.65 10.65 10.65 10.65 10.65 10.65 10.65	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.11 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.17
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7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017	18:00 19:00 20:00 20:00 21:00 22:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 11:00 11:00 12:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52 10.52 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82 17.84 17.87 17.61 17.42 16.93 16.76 16.76 16.99 17.41 17.71 18.05 18.14 18.48 18.50	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017	19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 11:00 11:00 12:00 13:00	10.63 10.63 10.62 10.62 10.66 10.66 10.65 10.62 10.66 10.65 10.65 10.64 10.65 10.63 10.64 10.66 10.66 10.66 10.66 10.66	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.11 16.16 16.16 16.17 16.17 16.17 16.18
7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017	18:00 19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 11:00 11:00 12:00 13:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52 10.52 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82 17.84 17.87 17.61 17.42 16.93 16.76 16.76 16.99 17.41 17.71 18.05 18.14 18.48 18.50 19.12	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017	19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 11:00 11:00 12:00 13:00 14:00	10.63 10.63 10.62 10.62 10.66 10.66 10.65 10.62 10.66 10.65 10.65 10.65 10.65 10.65 10.66 10.66 10.66 10.66 10.66 10.66 10.66 10.66 10.68 10.67 10.69	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.11 16.16 16.16 16.17 16.17 16.17 16.18 16.18
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7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017	18:00 19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 11:00 11:00 12:00 13:00 14:00 15:00	10.52 10.51 10.52 10.52 10.52 10.52 10.52 10.52 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53 10.53	Well C-14 17.99 18.27 17.87 17.79 17.70 17.68 17.82 17.84 17.87 17.61 17.42 16.93 16.76 16.99 17.41 17.71 18.05 18.14 18.48 18.50 19.12 18.34	7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/10/2017 7/11/2017	19:00 20:00 20:00 21:00 22:00 23:00 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 11:00 12:00 13:00 14:00 15:00 16:00	10.63 10.63 10.62 10.62 10.66 10.66 10.65 10.62 10.66 10.65 10.65 10.65 10.63 10.64 10.66 10.66 10.66 10.66 10.66 10.66 10.66 10.67 10.69 10.69	Near Well C-16 ^{1/2} 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.16 16.11 16.16 16.16 16.17 16.17 16.17 16.18 16.18 16.18 16.19

Date	Time	Temperature (degrees Celsius) Well C-14	Temperature (degrees Celsius) Surface Water Near Well C-14	Date	Time	Temperature (degrees Celsius) Well C-16	Temperature (degrees Celsius) Piezometer Shallow Groundwater Near Well C-16 ¹¹
7/11/2017	19:00	10.54	17.96	7/11/2017	20:00	10.70	16.21
7/11/2017	20:00	10.54	17.78	7/11/2017	21:00	10.69	16.21
7/11/2017	21:00	10.54	17.50	7/11/2017	22:00	10.71	16.22
7/11/2017	22:00	10.54	17.28	7/11/2017	23:00	10.70	16.22
7/11/2017	23:00	10.54	17.21	7/12/2017	0:00	10.70	16.23
7/12/2017	0:00	10.55	17.06	7/12/2017	1:00	10.70	16.23
7/12/2017	1:00	10.54	17.01	7/12/2017	2:00	10.68	16.24
7/12/2017	2:00	10.54	17.03	7/12/2017	3:00	10.73	16.24
7/12/2017	3:00	10.54	17.34	7/12/2017	4:00	10.72	16.29
7/12/2017	4:00	10.55	17.05	7/12/2017	5:00	10.70	16.29
7/12/2017	5:00	10.55	16.91	7/12/2017	6:00	10.71	16.26
7/12/2017	6:00	10.55	17.38	7/12/2017	7:00	10.70	16.27
7/12/2017	7:00	10.55	17.74	7/12/2017	8:00	10.72	16.27
7/12/2017	8:00	10.55	18.42	7/12/2017	9:00	10.71	16.28
7/12/2017	9:00	10.55	18.79	7/12/2017	10:00	10.74	16.29
7/12/2017	10:00	10.56	18.97	7/12/2017	11:00	10.70	16.29
7/12/2017	11:00	10.56	19.66	7/12/2017	12:00	10.70	16.30
7/12/2017	12:00	10.55	19.79	7/12/2017	13:00	10.74	16.31
7/12/2017	13:00	10.56	20.36	7/12/2017	14:00	10.74	16.31
7/12/2017	14:00	10.56	21.68	7/12/2017	15:00	10.70	16.31
7/12/2017	15:00	10.56		7/12/2017	16:00	10.70	16.32
7/12/2017			21.89 21.71	7/12/2017		10.70	
	16:00	10.56			17:00		16.31
7/12/2017	17:00	10.56	20.18	7/12/2017	18:00	10.70	16.32
7/12/2017	18:00	10.56	19.54	7/12/2017	19:00	10.71	16.32
7/12/2017	19:00	10.56	18.73	7/12/2017	20:00	10.71	16.33
7/12/2017	20:00	10.56	18.48	7/12/2017	21:00	10.73	16.33
7/12/2017	21:00	10.56	18.31	7/12/2017	22:00	10.72	16.34
7/12/2017	22:00	10.56	18.15	7/12/2017	23:00	10.74	16.35
7/12/2017	23:00	10.56	18.42	7/13/2017	0:00	10.71	16.34
7/13/2017	0:00	10.56	18.28	7/13/2017	1:00	10.75	16.34
7/13/2017	1:00	10.56	18.44	7/13/2017	2:00	10.73	16.35
7/13/2017	2:00	10.56	18.60	7/13/2017	3:00	10.70	16.36
7/13/2017	3:00	10.56	18.61	7/13/2017	4:00	10.71	16.38
7/13/2017	4:00	10.56	18.97	7/13/2017	5:00	10.73	16.39
7/13/2017	5:00	10.58	19.18	7/13/2017	6:00	10.73	16.46
7/13/2017	6:00	10.55	19.41	7/13/2017	7:00	10.71	16.47
7/13/2017	7:00	10.55	19.54	7/13/2017	8:00	10.72	16.48
7/13/2017	8:00	10.55	20.08	7/13/2017	9:00	10.73	16.48
7/13/2017	9:00	10.55	20.68	7/13/2017	10:00	10.74	16.49
7/13/2017	10:00	10.56	20.67	7/13/2017	11:00	10.74	16.45
7/13/2017	11:00	10.56	20.43	7/13/2017	12:00	10.73	16.46
7/13/2017	12:00	10.56	20.34	7/13/2017	13:00	10.73	16.48
7/13/2017	13:00	10.56	19.77	7/13/2017	14:00	10.72	16.48
7/13/2017	14:00	10.56	19.33	7/13/2017	15:00	10.69	16.48
7/13/2017	15:00	10.56	19.47	7/13/2017	16:00	10.74	16.50
7/13/2017	16:00	10.56	19.46	7/13/2017	17:00	10.73	16.51
7/13/2017	17:00	10.56	19.47	7/13/2017	18:00	10.73	16.52
7/13/2017	18:00	10.56	19.43	7/13/2017	19:00	10.72	16.53
7/13/2017	19:00	10.56	19.24	7/13/2017	20:00	10.74	16.54
7/13/2017	20:00	10.56	19.11	7/13/2017	21:00	10.73	16.55
7/13/2017	21:00	10.58	19.08	7/13/2017	22:00	10.72	16.56
7/13/2017	22:00	10.55	19.08	7/13/2017	23:00	10.72	16.57
7/13/2017	23:00	10.56	18.97	7/14/2017	0:00	10.76	16.58

Date	Time	Temperature (degrees Celsius) Well C-14	Temperature (degrees Celsius) Surface Water Near Well C-14	Date	Time	Temperature (degrees Celsius) Well C-16	Temperature (degrees Celsius) Piezometer Shallow Groundwater Near Well C-16 ^{1/2}
7/14/2017	0:00	10.56	18.89	7/14/2017	1:00	10.74	16.59
7/14/2017	1:00	10.56	18.88	7/14/2017	2:00	10.72	16.60
7/14/2017	2:00	10.56	18.52	7/14/2017	3:00	10.74	16.62
7/14/2017	3:00	10.56	18.25	7/14/2017	4:00	10.75	16.63
7/14/2017	4:00	10.57	18.02	7/14/2017	5:00	10.73	16.64
7/14/2017	5:00	10.56	17.82	7/14/2017	6:00	10.71	16.65
7/14/2017	6:00	10.56	17.67	7/14/2017	7:00	10.75	16.66
7/14/2017	7:00	10.56	17.95	7/14/2017	8:00	10.72	16.68
7/14/2017	8:00	10.56	18.28	7/14/2017	9:00	10.72	16.69
7/14/2017	9:00	10.56	18.22	7/14/2017	10:00	10.72	16.70
7/14/2017	10:00	10.56	18.27	7/14/2017	11:00	10.71	16.71
7/14/2017	11:00	10.57	18.32	7/14/2017	12:00	10.73	16.72
7/14/2017	12:00	10.57	18.29	7/14/2017	13:00	10.73	16.73
7/14/2017	13:00	10.57	18.33	7/14/2017	14:00	10.74	16.74
7/14/2017	14:00	10.57	18.30	7/14/2017	15:00	10.75	16.75
7/14/2017	15:00	10.57	18.26	7/14/2017	16:00	10.75	16.75
7/14/2017	16:00	10.57	18.27	7/14/2017	17:00	10.73	16.76
7/14/2017	17:00	10.57	18.24	7/14/2017	18:00	10.70	16.77
7/14/2017	18:00	10.57	18.17	7/14/2017	19:00	10.71	16.87
7/14/2017	19:00	10.57	18.10	7/14/2017	20:00	10.75	16.87
7/14/2017	20:00	10.57	18.01	7/14/2017	21:00	10.73	16.87
7/14/2017	21:00	10.57	17.96	7/14/2017	22:00	10.74	16.88
7/14/2017	22:00	10.57	17.92	7/14/2017	23:00	10.74	16.80
7/14/2017	23:00	10.57	17.87	7/15/2017	0:00	10.74	16.80
7/15/2017	0:00	10.57	17.85	7/15/2017	1:00	10.72	16.80
7/15/2017	1:00	10.55	17.82	7/15/2017	2:00	10.74	16.81
7/15/2017	2:00	10.57	17.76	7/15/2017	3:00	10.74	16.81
7/15/2017	3:00	10.56	17.73	7/15/2017	4:00	10.71	16.82
7/15/2017	4:00	10.57	17.69	7/15/2017	5:00	10.72	16.82
7/15/2017	5:00	10.57	17.69	7/15/2017	6:00	10.70	16.82
	6:00	10.57	17.69		7:00	10.70	16.82
7/15/2017 7/15/2017	7:00	10.57	17.73	7/15/2017 7/15/2017	8:00	10.72	16.82
7/15/2017	8:00	10.57	17.97	7/15/2017	9:00	10.74	16.82
7/15/2017	9:00	10.57	18.17		10:00	10.72	16.82
				7/15/2017			
7/15/2017 7/15/2017	10:00 11:00	10.57 10.57	18.37 18.48	7/15/2017 7/15/2017	11:00 12:00	10.71 10.73	16.82 16.82
7/15/2017	12:00	10.57	18.48	7/15/2017	12:00	10.74	16.82
	13:00			7/15/2017	14:00	10.74	16.83
7/15/2017 7/15/2017	14:00	10.57 10.57	18.59 18.75	7/15/2017	15:00	10.74	16.83
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7/15/2017 7/15/2017	15:00 16:00	10.57 10.57	19.40 19.02	7/15/2017 7/15/2017	16:00 17:00	10.75 10.73	16.83 16.82
7/15/2017 7/15/2017	17:00 18:00	10.57 10.57	18.70 18.28	7/15/2017 7/15/2017	18:00 19:00	10.74 10.71	16.82 16.82
7/15/2017	19:00	10.57	17.91	7/15/2017	20:00	10.71	16.82
7/15/2017	20:00	10.57	17.63	7/15/2017	21:00	10.72	16.81
7/15/2017	20:00	10.57	17.43	7/15/2017	22:00	10.77	16.81
7/15/2017	22:00	10.58	17.32	7/15/2017	23:00	10.71	16.81
7/15/2017	23:00	10.57	17.24	7/16/2017	0:00	10.72	16.81
7/16/2017			17.24		0:00		
//10/201/	0:00	10.57	1 / .99				

Date	Time	Temperature (degrees Celsius) Well C-21	Temperature (degrees Celsius) Surface Water Near Well C-21	Date	Time	Temperature (degrees Celsius) Well C-23	Temperature (degrees Celsius) Piezometer Shallow Groundwater Near Well C-23 ^{1/}
7/25/2017	12:00	9.98	16.86	7/10/2017	13:00	9.80	16.28
7/25/2017	13:00	10.00	16.93	7/10/2017	14:00	9.99	16.28
7/25/2017	14:00	10.00	17.02	7/10/2017	15:00	10.00	16.24
7/25/2017	15:00	10.01	17.13	7/10/2017	16:00	9.97	16.25
7/25/2017	16:00	10.01	17.15	7/10/2017	17:00	10.00	16.27
7/25/2017	17:00	10.01	17.28	7/10/2017	18:00	9.97	16.26
						10.00	
7/25/2017	18:00	10.02 10.02	17.34 17.25	7/10/2017	19:00	9.99	16.24 16.26
7/25/2017	19:00	10.02		7/10/2017	20:00	9.99	
7/25/2017	20:00		17.18	7/10/2017	20:00		16.26
7/25/2017	20:00	10.02	17.18	7/10/2017	21:00	10.03 10.02	16.25
7/25/2017	21:00	10.02	17.12	7/10/2017	22:00		16.27
7/25/2017	22:00	10.02	17.03	7/10/2017	23:00	10.01	16.27
7/25/2017	23:00	10.02	16.96	7/11/2017	0:00	10.02	16.30
7/26/2017	0:00	10.02	16.88	7/11/2017	1:00	10.00	16.26
7/26/2017	1:00	10.03	16.83	7/11/2017	2:00	9.98	16.30
7/26/2017	2:00	10.03	16.81	7/11/2017	3:00	10.02	16.32
7/26/2017	3:00	10.03	16.71	7/11/2017	4:00	10.00	16.30
7/26/2017	4:00	10.03	16.61	7/11/2017	5:00	10.02	16.34
7/26/2017	5:00	10.03	16.48	7/11/2017	6:00	9.99	16.34
7/26/2017	6:00	10.03	16.37	7/11/2017	7:00	10.00	16.33
7/26/2017	7:00	10.03	16.27	7/11/2017	8:00	9.99	16.37
7/26/2017	8:00	10.03	16.26	7/11/2017	9:00	10.00	16.35
7/26/2017	9:00	10.03	16.36	7/11/2017	10:00	10.00	16.36
7/26/2017	10:00	10.03	16.48	7/11/2017	11:00	10.00	16.38
7/26/2017	11:00	10.03	16.71	7/11/2017	12:00	10.02	16.39
7/26/2017	12:00	10.04	16.94	7/11/2017	13:00	9.99	16.38
7/26/2017	13:00	10.03	17.28	7/11/2017	14:00	10.04	16.38
7/26/2017	14:00	10.03	17.55	7/11/2017	15:00	10.01	16.40
7/26/2017	15:00	10.03	17.79	7/11/2017	16:00	10.01	16.40
7/26/2017	16:00	10.04	17.93	7/11/2017	17:00	10.00	16.42
7/26/2017	17:00	10.04	17.98	7/11/2017	18:00	10.05	16.42
7/26/2017	18:00	10.03	17.99	7/11/2017	19:00	10.02	16.45
7/26/2017	19:00	10.04	18.00	7/11/2017	20:00	10.03	16.44
7/26/2017	20:00	10.03	17.94	7/11/2017	21:00	10.03	16.47
7/26/2017	21:00	10.03	17.78	7/11/2017	22:00	10.02	16.44
7/26/2017	22:00	10.04	17.57	7/11/2017	23:00	10.00	16.48
7/26/2017	23:00	10.03	17.41	7/12/2017	0:00	10.02	16.45
7/27/2017	0:00	10.04	17.26	7/12/2017	1:00	10.01	16.50
7/27/2017	1:00	10.03	17.04	7/12/2017	2:00	10.01	16.51
7/27/2017	2:00	10.04	16.90	7/12/2017	3:00	10.05	16.53
7/27/2017	3:00	10.04	16.81	7/12/2017	4:00	10.02	16.52
7/27/2017	4:00	10.04	16.66	7/12/2017	5:00	10.07	16.54
7/27/2017	5:00	10.04	16.58	7/12/2017	6:00	10.00	16.52
7/27/2017	6:00	10.04	16.54	7/12/2017	7:00	10.02	16.54
7/27/2017	7:00	10.04	16.55	7/12/2017	8:00	10.02	16.54
7/27/2017	8:00	10.04	16.58	7/12/2017	9:00	10.01	16.58
7/27/2017	9:00	10.04	16.65	7/12/2017	10:00	10.03	16.58
7/27/2017	10:00	10.04	16.70	7/12/2017	11:00	10.02	16.58
7/27/2017	11:00	10.04	16.84	7/12/2017	12:00	10.03	16.59
7/27/2017	12:00	10.04	16.94	7/12/2017	13:00	10.01	16.56
7/27/2017	13:00	10.04	17.02	7/12/2017	14:00	10.00	16.57

Date	Time	Temperature (degrees Celsius) Well C-21	Temperature (degrees Celsius) Surface Water Near Well C-21	Date	Time	Temperature (degrees Celsius) Well C-23	Temperature (degrees Celsius) Piezometer Shallow Groundwater Near Well C-23 ^{1/2}
7/27/2017	14:00	10.04	17.23	7/12/2017	15:00	10.01	16.59
7/27/2017	15:00	10.04	17.27	7/12/2017	16:00	10.00	16.61
7/27/2017	16:00	10.04	17.37	7/12/2017	17:00	10.02	16.64
7/27/2017	17:00	10.04	17.57	7/12/2017	18:00	10.01	16.64
7/27/2017	18:00	10.04	17.70	7/12/2017	19:00	10.01	16.66
7/27/2017	19:00	10.04	17.85	7/12/2017	20:00	10.00	16.65
7/27/2017	20:00	10.04	17.88	7/12/2017	21:00	10.05	16.68
7/27/2017	21:00	10.04	17.84	7/12/2017	22:00	10.04	16.66
7/27/2017	22:00	10.04	17.80	7/12/2017	23:00	10.01	16.69
7/27/2017	23:00	10.04	17.81	7/13/2017	0:00	10.02	16.70
7/28/2017	0:00	10.04	17.77	7/13/2017	1:00	10.02	16.69
7/28/2017	1:00	10.04	17.75	7/13/2017	2:00	10.00	16.72
7/28/2017	2:00	10.05	17.72	7/13/2017	3:00	10.01	16.71
7/28/2017	3:00	10.04	17.73	7/13/2017	4:00	10.00	16.75
7/28/2017	4:00	10.04	17.67	7/13/2017	5:00	10.04	16.77
7/28/2017	5:00	10.04	17.64	7/13/2017	6:00	10.02	16.78
7/28/2017	6:00	10.04	17.61	7/13/2017	7:00	10.02	16.77
7/28/2017	7:00	10.04	17.60	7/13/2017	8:00	10.00	16.79
7/28/2017	8:00	10.04	17.62	7/13/2017	9:00	10.00	16.78
7/28/2017	9:00	10.04	17.73	7/13/2017	10:00	10.04	16.83
7/28/2017	10:00	10.04	17.67	7/13/2017	11:00	10.02	16.81
7/28/2017	11:00	10.04	17.72	7/13/2017	12:00	10.00	16.80
7/28/2017	12:00	10.04	18.08	7/13/2017	13:00	10.02	16.85
				7/13/2017	14:00	10.01	16.84
				7/13/2017	15:00	10.01	16.85
				7/13/2017	16:00	9.98	16.88
				7/13/2017	17:00	10.03	16.86
				7/13/2017	18:00	10.04	16.88
				7/13/2017	19:00	10.02	16.91
				7/13/2017	20:00	10.02	16.93
				7/13/2017	21:00	10.02	16.95
				7/13/2017	22:00	10.04	16.94
				7/13/2017	23:00	10.04	16.98
				7/14/2017	0:00	10.00	17.02
				7/14/2017	1:00	10.01	17.04
				7/14/2017	2:00	10.01	17.06
				7/14/2017	3:00	10.02	17.08
				7/14/2017	4:00	9.99	17.12
				7/14/2017	5:00	10.09	17.09
				7/14/2017	6:00	10.02	17.10
				7/14/2017	7:00	10.01	17.11
				7/14/2017	8:00	10.02	17.14
				7/14/2017	9:00	10.03	17.16
				7/14/2017	10:00	10.02	17.12
				7/14/2017	11:00	10.06	17.17
				7/14/2017	12:00	9.98	17.15
				7/14/2017	13:00	10.02	17.13
				7/14/2017	14:00	10.03	17.13
				7/14/2017	15:00	10.01	17.10
				7/14/2017	16:00	10.00	17.10
				7/14/2017	17:00	10.02	17.12
				7/14/2017	18:00	9.99	17.09
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Temperature Measurements from the Pumping Wells and Nearby Surface Water During Pumping Test Program Conducted on Wells C-6, 7B, 12, 14, 16, 21, and 23 During July 2017

Date	Time	Temperature (degrees Celsius) Well C-21	Temperature (degrees Celsius) Surface Water Near Well C-21	Date	Time	Temperature (degrees Celsius) Well C-23	Temperature (degrees Celsius) Piezometer Shallow Groundwater Near Well C-23 ^{1/2}
				7/14/2017	19:00	10.04	17.05
				7/14/2017	20:00	10.05	17.07
				7/14/2017	21:00	10.05	17.07
				7/14/2017	22:00	10.00	17.03
				7/14/2017	23:00	10.00	17.02
		-		7/15/2017	0:00	10.02	17.01
				7/15/2017	1:00	10.03	17.00
		-		7/15/2017	2:00	10.00	16.98
				7/15/2017	3:00	10.04	16.99
				7/15/2017	4:00	10.04	16.95
		-		7/15/2017	5:00	10.01	16.95
				7/15/2017	6:00	10.00	16.94
				7/15/2017	7:00	10.00	16.91
				7/15/2017	8:00	10.02	16.94
				7/15/2017	9:00	10.04	16.91
				7/15/2017	10:00	10.04	16.89
				7/15/2017	11:00	10.07	16.89
				7/15/2017	12:00	10.05	16.90
				7/15/2017	13:00	10.00	16.85
		-		7/15/2017	14:00	10.01	16.83
		-		7/15/2017	15:00	10.02	16.84
		-		7/15/2017	16:00	10.00	16.81
				7/15/2017	17:00	10.07	16.82
				7/15/2017	18:00	10.05	16.82
		-		7/15/2017	19:00	10.08	16.81
				7/15/2017	20:00	10.01	16.80
				7/15/2017	21:00	10.03	16.83
				7/15/2017	22:00	10.01	16.85
		-		7/15/2017	23:00	9.99	16.82
				7/16/2017	0:00	10.01	16.88

^{1/} Temperature measurements from transducer installed in the nearby shallow-screened piezometer were used for comparison.

PLATE

