Jefferson County Foundation, Inc.

November 5, 2024

Jefferson County Planning Commission
116 E Washington St.
Charles Town, WV 25414
Via Email

Regarding: Public Workshop: Mountain Pure Concept Plan for a Major Site Development

Dear Planning Commissioners,

Please accept the following comments on the Mountain Pure Water Bottling Facility Concept Plan. Please either reject the concept plan because there is not enough information to determine if the land use is a permitted use, or place conditions on your direction to continue to the site plan stage that limit the applicant to what has been described in the current concept plan.

> Preferred Action: Reject the concept plan as submitted for the reason that it cannot be determined if the land use is permitted in this zone.
>
> Alternatively: Place conditions on your direct to continue to the site plan stage that require:
>
> 1. Groundwater from Jefferson County shall not be used for any use related to this development or its future use including but not limited to bottling.
> 2. All current and future activity related to this development shall be contained on the subject property described in the current application with the exception of the activity related to building an access road.
> 3. A road should be built at the expense of the developer that provides direct access from the facility to route 51 that is capable of accommodating all traffic to and from the subject facility.

Based on Section Sec. 24.121 of the Subdivision and Land Development Regulations "Major Site Plan Concept Plan – Direction" section A. "Direction" and section B. "Conditions" the Jefferson County Planning Commission has the authority to place requirements as conditions on the direction that it gives an applicant when the Planning Commission directs the applicant to continue to the Major Site Plan stage. These conditions need to be based in the zoning ordinance and not reduce the density of the development below that allowed in the zoning ordinance. We believe that the three conditions we are requesting are firmly based in the zoning ordinance and regulations as described below.

Not enough information to determine if the land use is permitted.

The concept plan does not contain enough information to determine if the land use is a permitted use, a conditionally permitted use, or a non-permitted use. It cannot be determined from the

application where the water for bottling is being sourced. Because this is a water bottling plant, the source of water for bottling is integral to understanding the land use.

It is our understanding from reviewing the documents from the Berkely County Public Service and talking with the general manager of the Charles Town Utility Board that the development will receive water for domestic purposes (sinks, toilets, showers, cooking) from Berkely County Public Service Water District and no water will be supplied to the development by Charles Town Utility Board for any purpose at this time.

If a utility does not supply the water for bottling, then the water may be sourced from surface water on the subject property or from groundwater extraction. It is unknown if the flow of the surface water course on the subject property Turkey Run would provide the water needed for this size bottling plant or how this would affect the downstream users of the Opequon Creek of which Turkey Run is a tributary. This 1,000,000-square-foot facility appears to be one of the largest non-alcoholic bottling facilities in the United States,[1] and would reasonably be expected to use a large amount of water.

Groundwater extraction is a prohibited use in all Zones in Jefferson County. Section 1.3 D. of the Jefferson County Zoning and Land Development Ordinance sates, "If a proposed use is not one in the list of the principal permitted or conditional uses in each zoning district, it shall be prohibited as though it was included in the list of prohibitions. Applicants desiring inclusion of a use not specifically permitted in this Ordinance may apply for a text amendment, following the provisions outlined in Article 12 of this Ordinance." Groundwater extraction is not contemplated by the comprehensive plan and therefore based on Section 1.3 D. is a prohibited use in all zones. Therefore, the applicant should be prohibited from using groundwater extraction to source the water used for bottling. If this is the source the applicant plans to use, this is a prohibited use and the concept plan should be rejected.

Because the source of water for bottling cannot be determined from the submission and one or more of the possible sources would make this a prohibited land use in this zone under the Jefferson County Zoning and Land Development Ordinance, the concept plan should be rejected as submitted. In the alternative, please place conditions on your direction to continue to the site plan stage. Groundwater extraction is a prohibited land use based on the Jefferson County Zoning and Land Development Ordinance. Therefore, please add a condition requiring, groundwater from Jefferson County shall not be used for any use related to this development or

[1] Nestle, Coca-Cola, and PepsiCo are the largest non-alcoholic beverage companies in the United States (https://finance.yahoo.com/news/20-biggest-non-alcoholic-beverage-161621901.html). Nestle's new water bottling plant that produces Deer Park and Pure Life branded water is 200,000 square feet, just 20% the size of this proposed plant (https://www.fooddive.com/news/nestle-waters-40m-sc-bottling-plant-plans-unveiled/403230/#:~:text=The%20approximately%20200%2C000%2Dsquare%2Dfoot,50%20jobs%20for%20the%20community.). The Coca-Cola company bottles Dasani in a 262,000-square foot bottling facility, and it buys the water for bottling from a municipal water source (https://www.theguardian.com/us-news/2020/apr/23/pepsi-coke-bottled-water-consumer-reports). PepsiCo is building its largest bottling facility ever in the United States at 1.2 million-square-feet, where it will produce its flagship drink Pepsi with at least 6 other products. (https://www.fooddive.com/news/pepsico-beverage-plant-colorado/627315/)

its future use including but not limited to bottling. This simply requires the applicant to adhere to the information that they have presented in the concept plan.

The application may not include all properties that will be utilized for the development.

Review of the tax map reveals that the applicant also owns several parcels up stream on Turkey Run of the subject property, including one property where Lake Louise is located. Based on County records, the applicant drilled two wells near Lake Louise in 2022.

The applicant had one of these wells evaluated by an engineering firm to evaluate if the well could produce 1.728 million gallons a day of water (Exhibit B, page 4). This report indicated in the introduction that the well would serve a new development but did not describe the well further. According to the deed book (Book 1256, page 360), the applicant also obtained a deed of easement access to these wells and a water line from the wells to Route 51.

Based on the above information, we are concerned that applicant may plan to use these wells for groundwater extraction to obtain water for bottling. This would make these properties part of the development and, therefore, these properties should be included in the site plan based on Section 24.119 of the Subdivision and Land Development Regulations. However, these properties were not included in the concept plan.

For these reasons, we request that **if** you give the company direction to continue to the Site Plan Stage, that you place a condition on your direction requiring all activity related to this water bottling facility development shall be contained on the subject property described in the current concept plan application with the exception of the activity related to building an access road.

Access to the facility has not been adequately addressed.

Currently the only vehicular access to the facility is through the downtown of the Middleway Historic District or down several small rural roads for 12 to 13 miles before reaching a major road. We are concerned that this will reduce safety in both downtown Middleway and on these small rural roads. In addition, we are concerned that the additional 4750 trips a day the development will generate to and from the facility and the size and weight of these vehicles that the historical buildings and other assets in the Middleway Historic District will be damaged.

For these reasons, if you decide to give direction to the applicant to continue on to the site plan stage that you place a condition on your direction that the company should build a vehicle bypass around the Middleway Historic District that can accommodate all of the vehicle traffic to and from the plant.

Additional Concerns

While we believe that groundwater extraction is a prohibited land use in all zones, we are additionally concerned that the effects of such extraction especially at the rates described in the engineering report of the study performed by Triad Engineering, Inc. (exhibit B) would have negative impacts on water availability in the region and may increase the rate of sinkhole

development. These impacts would have an outsized impact on the agricultural land uses surrounding the facility. This concern led us to have the report evaluated by an expert hydrogeologist with expertise in karst, Dr. Chris Groves. He provided the communication attached here as Exhibit A. Dr. Groves has been previously qualified as an expert hydrogeologist at the Department of Environmental Protection Environmental Quality Board and his credentials are outlined in his communication. He finds that the current report does not consider that the groundwater extraction well is in karst hydrogeology and therefore the findings do not accurately represent the effects of drawing this amount of water from this well in this type of karst hydrogeology.

We have included this information because we are concerned that during the public workshop the applicant will present this document as evidence that our concerns regarding the use of groundwater should be dismissed. First and foremost, these concerns should not be dismissed because regardless of the impacts groundwater extraction is prohibited in all zones in Jefferson County based on the Jefferson County Zoning and Land Development Ordinance. Second, these concerns should not be dismissed based on this engineering report because the engineering report is not appropriate to evaluate the effects of such groundwater extraction in this location.

Thank you for considering these comments.

Best regards,

Christine Wimer
President, Jefferson County Foundation, Inc.

Exhibit A

November 5, 2024

Dr. Christine Wimer
Jefferson County Foundation, Inc.
PO Box 460, Ranson, WV 25438

Dear Dr. Wimer,

At your request I have reviewed available technical information regarding the Concept Plan that has been submitted by Sidewinder Enterprises LLC for the Mountain Pure water bottling facility proposed for Jefferson County, West Virginia.

The purpose of my review, with conclusions summarized in this letter, is to evaluate how well the potential for impacts to the county's water resources associated with operation of this water bottling facility have been addressed, based on a review of existing information. It is limited to technical (hydrogeology) considerations, as I make no claim to have expertise in either legal matters nor detailed familiarity with West Virginia's environmental regulations. Although I have been hired by the Jefferson County Foundation, Inc. to undertake this evaluation, my task is to objectively consider hydrogeologic conditions in the vicinity of the proposed facility. I have not manipulated information to have it reflect any pre-determined outcome, and my contributions to this process, and all of my professional activities, reflect that philosophy. My comments are accurate and truthful to the best of my experience and abilities.

My overall conclusion is that the potential for adverse impacts to landowners in the vicinity of the site has not been adequately addressed in the September 4, 2024 Mountain Pure Concept Plan/Major Site Plan and that an appropriate technical evaluation should be required before the project moves forward. This is based on primarily on two observations: 1) the Concept Plan itself simply describes the intent to build a one million square foot bottling facility, but makes no mention of how much water will be required, where that water will be obtained, and what the potential impacts of obtaining this water might be; 2) a separate, 2022, evaluation commissioned by Sidewinder Enterprises and completed by Triad Engineering Inc. (and herein cited as Triad Report 2022) suggests that water from the nearby Turkey Run Spring Site (including Well MW-B) will be the source. While that report concludes that the site will be adequate to meet the proposed potable water demand of 1.728 million gallons per day (Triad Report 2022, p. 1), the analysis uses methods, particularly with respect to modelling and water quality evaluation, more suitable for porous medium aquifers than the limestone *karst* aquifers that are well developed within Jefferson County (*e.g.* Beiber 1961; Davies 1965; Hobba 1981; Kozar et al. 1991; Jones 1991, 1997; Kozar et al. 1991; Kozar 2002; Evaldi et al. 2009; Doctor and Doctor, 2012; Maloy and Carter, 2012). These are groundwater flow systems developed through dissolution of soluble limestone bedrock within which water flows preferentially through dissolved conduits and fractures, as the well data in the Triad Report (2002, Appendix B) make obvious, and yet much of the analysis in the report treats the flow as if it was in a porous medium. This is more akin to water flowing through sand, where the spaces through which the water flows are very uniform and evenly distributed.

I am a licensed Professional Geologist in Kentucky, Tennessee and Virginia (West Virginia does not have a Professional Geology registration) with more than 40 years of professional

experience in the study of surface and underground water in a wide variety of environments throughout the world, with an emphasis on karst landscapes and aquifers. I earned a BS degree in Geology (1984), and an MS degree in Geography (1987) from Western Kentucky University. In 1993 I received a PhD in Environmental Sciences from the University of Virginia (Geology track) with an emphasis in hydrogeology, geochemistry, and geomorphology and where my PhD dissertation *Early Development of Karst Systems* led to a series of papers in the highly-ranked journal *Water Resources Research* that have now collectively been cited over 450 times. I currently serve as University Distinguished Professor of Hydrogeology at Western Kentucky University, where I have written or coauthored 38 peer-reviewed journal papers or book chapters, 1 book, over 50 conference proceedings, technical reports, book reviews, or fieldtrip guides, as well as given more that 175 scientific presentations at international, national, regional scientific conferences or university seminars. I have published research in the leading professional water-related, peer-reviewed journals including *Journal of Hydrology*, *Groundwater*, *Water Resources Research,* and *Hydrogeology Journal* and leading geomorphology journals including *Earth Surface Processes and Landforms* and *Geomorphology.* I have served as an Associate Editor for the *Journal of Hydrology* and *Hydrogeology Journal*. I have been responsible for hydrogeology-related research, service or analysis under contracts, grants or other cooperative efforts for federal agencies that include the Bureau of Land Management, National Park Service, US Department of Agriculture, US Environmental Protection Agency, US Forest Service, US Department of Energy, US Army Corps of Engineers, the US Agency for International Development, and the US Department of State.

Since 1995 I have been active with participation in and leadership of five water-focused United Nations scientific programs within the United Nations Educational Scientific and Cultural Organization (UNESCO) International Geoscience Program as well as serving as an invited member of the Karst Commission of the International Association of Hydrogeologists. In these efforts and other research projects I have undertaken hydrogeological fieldwork in 25 countries. In 2017 I travelled to Beijing's Great Hall of the People where China's President Xi Jinping personally presented me with the International Cooperation in Science and Technology Award of the People's Republic of China, that country's highest award for foreign scientists, for "great contributions to China's hydrogeology and karst geology fields."

In 2002 I evaluated groundwater flow and related environmental issues at another geologically similar site in Jefferson County and at the time had an opportunity to become familiar with the area's landscapes, hydrogeology, and groundwater flow (Groves 2022).

Although I have reviewed a number of documents and relevant scientific literature in the current analysis, my comments herein are primarily based on the September 4, 2024 Mountain Pure Concept Plan/Major Site Plan (Concept Plan 2024) and the April 28, 2022 Report of Hydrogeological Assessment, Turkey Run Spring/MW-B (Triad Report 2022).

Perhaps the most relevant environmental issue concerns the impacts, presuming that the MW-B well is the primary source of water for the facility (and if this assumption is incorrect, there is obviously much less certainty about future impacts), of lowering of the water table caused by pumping and impacts on adjacent landowners. The report uses several methods to estimate impacts on the water table, and pumping tests provide results operating under

the conditions present during the test. However, the commonly-used methods of using mathematical models to simulate groundwater flow conditions across space and into the future work only as well as the data fed into the models match the real-world conditions that the work intends to simulated. In an easy to understand example, a diagram showing the bedrock conditions in well MW-B (Figure 1, Triad Report 2022, Appendix B) makes clear, consistent with the description in the text, that the spaces for water to flow are within discrete, fractures and perhaps weathered zones that the report describes (e.g. Triad Report 2022, p. 3) as “Relatively major water bearing zones” separated by what might be called (using my language) “not water bearing zones” Yet, in describing input to the mathematical simulation, “The model was constructed with one layer, and a saturated thickness of approximately 300 feet was assumed”. The science of groundwater modelling is complex, but the disparity between the model and the real world here is not.

There are several potential negative impacts of lowering the water table beneath adjacent properties. For one, there are no records of where the analogous “water bearing zones” are in other wells, and whether the drawdown may cause shallower ones to become dry. Another less obvious, but very real issue for Jefferson County is the development of sinkholes. These can be triggered by water table lowering and the resulting loss of buoyant support. This is another important issue in karst hydrogeology not mentioned in the Triad (2022) analysis, while sinkholes are a widespread hazard in Jefferson County (Figure 2).

I appreciate the opportunity to comment on this project, and conclude that to better understand the potential impacts beyond the actual properties of the facility, that analyses build in a required level of sophistication to realistically represent the actual conditions present.

Sincerely,

Chris Groves, PhD, PG
University Distinguished Professor of Hydrogeology
Western Kentucky University

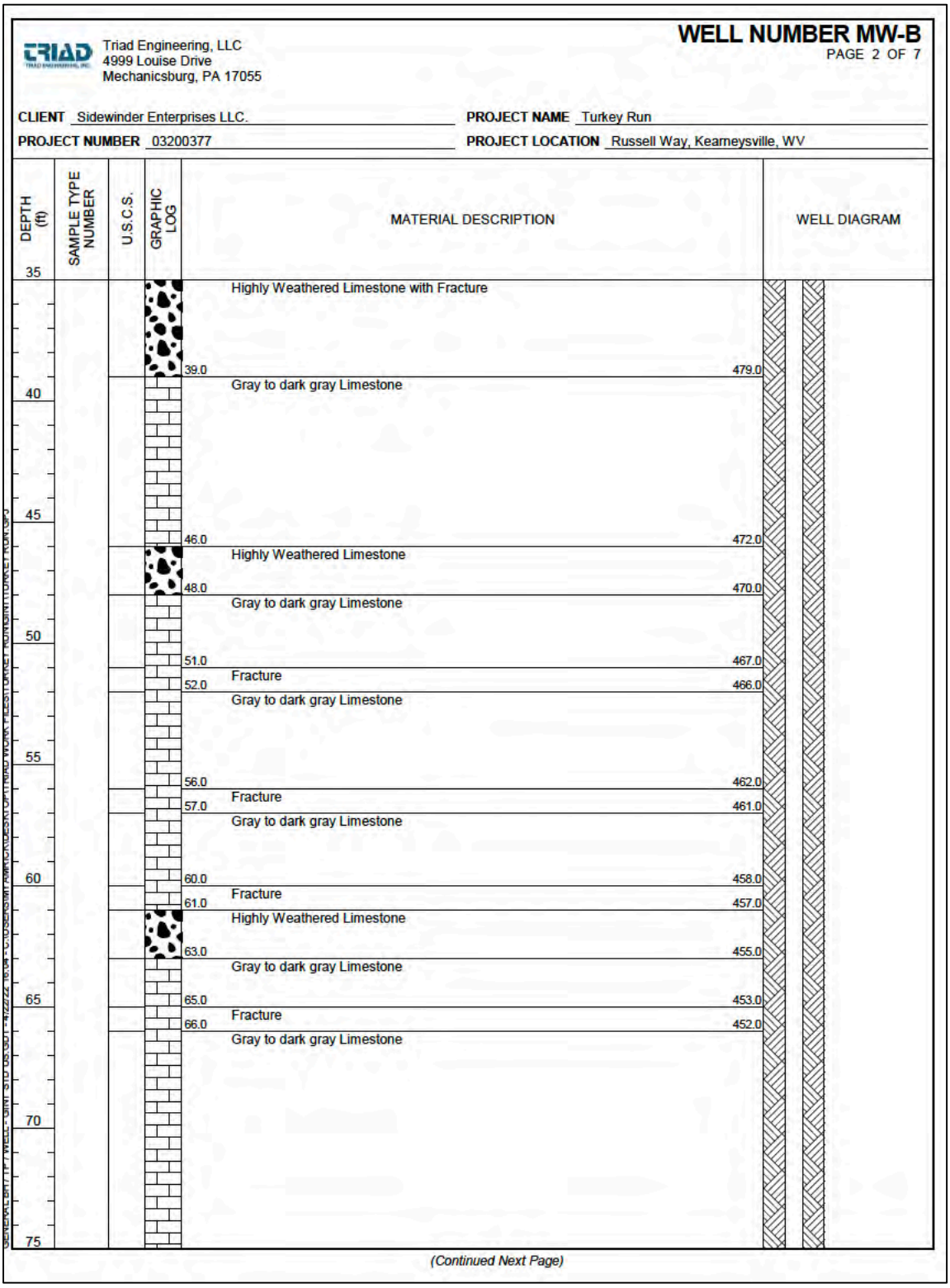

Figure 1. Portion of the well log for Well MW-B showing discrete water bearing zones common in limestone karst aquifers (Triad Report 2022 Appendix A).

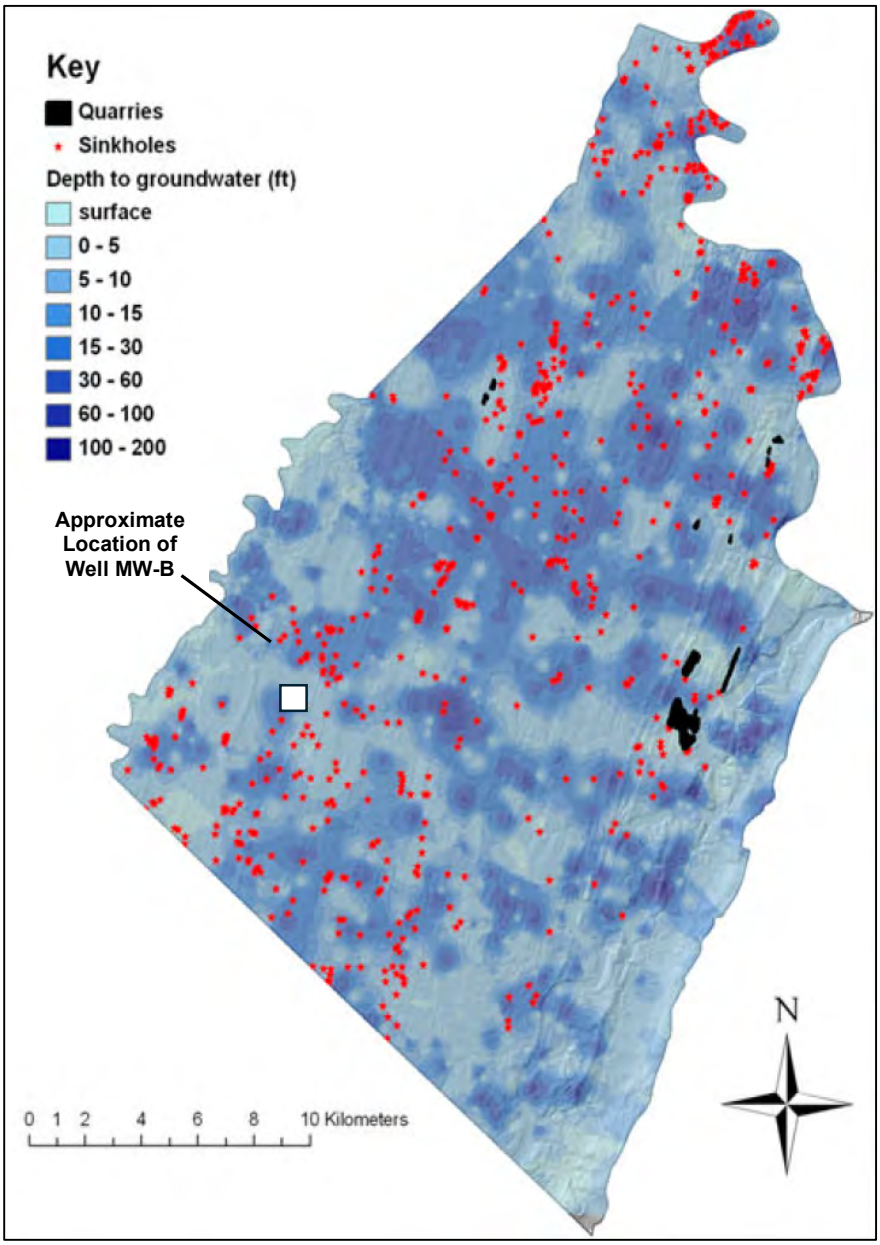

Figure 1. Sinkholes in Jefferson County showing approximate site of the facility (may from Doctor and Doctor, 2018).

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Exhibit B

April 28, 2022

Sidewinder-Enterprises, LLC.
Attn: Sean Masterson and Jeff Fischbeck
4340 Von Karman Ave #380
Newport Beach, California 92660

Subject: **Report of Hydrogeological Assessment**
Turkey Run Spring/MW-B
Middleway, West Virginia
Triad Project No. 03-20-0377

Dear Mr. Masterson and Fischbeck:

Enclosed is the *Hydrogeological Assessment Report* for the above-referenced property. If you have any questions or need additional information, please feel free to contact the undersigned.

Sincerely,

Triad Engineering, Inc.

Michael Yamrick, P.G.
Project Geologist

Nicholas J. Wolfe, P.G.
Regional Manager/Environmental Services Manager

Hydrogeological Assessment Report

Turkey Run Spring/MW-B
Middleway, West Virginia

Triad Project No.: 03-20-0377

Prepared for:
Mr. Sean Masterson and Jeff Fischbeck
Sidewinder-Enterprises, LLC.
4340 Von Karman Ave #380
Newport Beach, California 92660

Prepared By:
Triad Engineering Inc.
1075-D Sherman Avenue
Hagerstown, Maryland 21740

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1.0 INTRODUCTION

This Report presents the results of the Hydrogeological Assessment performed at the Turkey Run Spring site, located in Middleway, WV. Triad Engineering, Inc. (Triad) understands that the site is proposed for development and that a new potable water source is needed. Additionally, it is understood that there is one existing on-site public water supply well located at the north end of the property (PW-1), which is indicated on the Test Well Location Plan attached to this Report in **Appendix A**. The anticipated potable water demand associated with the proposed development is approximately 1.728 million gallons per day (gpd), or about 1,200 gallons per minute (gpm).

The purpose of this work is to evaluate the potential for developing a potable water supply for the site. This assessment included the drilling and installation of two new test wells (MW-A and MW-B), preliminary aquifer testing of MW-B, groundwater quality sampling/analysis of MW-B and the Spring, recharge analysis associated with the proposed potable water supply, and an area impact evaluation. The results of this assessment are summarized herein and indicate that Well MW-B (which was drilled as part of this assessment) is suitable, with appropriate treatment measures, for potable use with a sustainable yield of about 1.728 million gpd or about 1,200 gpm.

2.0 SITE LOCATION

The Site includes approximately 13.22 acres and is located southeast of Middleway in Jefferson County, West Virginia and is currently the site of a mobile home park. The Site consists of Turkey Run Spring and Lake Louise, forested wetlands, and small portion of uplands. The general topography of the Site is predominately flat. Based on review of the 2019 U.S. Geological Survey (USGS) Middleway 7.5-minute quadrangle, surface elevations at the Site range from approximately 512-530 feet above mean sea level (M.S.L). A topographic map is included in **Appendix A**. Turkey Run originates east of Lake Louise; however, during field investigations this section of Turkey Run was dry. At Lake Louise, Turkey Run is prominent and flows in a westerly direction towards the 260-

acre unoccupied manufacturing facility currently owned by Sidewinder Enterprises, LLC., and then continues west towards the Opequon Creek.

3.0 GEOLOGIC AND HYDROGEOLOGIC SETTING

Based on the 1990 West Virginia Geological and Economic Survey, Map-WV35, Titled, "Geology of Berryville, Charles Town, Harpers Ferry, Middleway, and Round Hill quadrangles, Jefferson County, West Virginia", the Site is underlain by the Rockdale Run Formation. The Rockdale Run Formation consists of *"*gray to light gray algal limestone with interbedded aphanitic limestone and dolomite; channel fillings with fossil fragments, reworked limestone, and oolites common; chert occurs throughout, several characteristic fossil zones with Stromatolite chert "heads" near base. This unit ranges from 2,400-2,750 feet thick*"*. A *Geologic Map* is included in **Appendix A.**

1995 USGS Report entitled "Geohydrology, Ground-Water Availability, and Ground-Water Quality of Berkeley County, West Virginia, with Emphasis on the Carbonate Rock Area" was reviewed. This report documents that an approximate 10 inches per year (in/yr) water recharge to the subsurface within a 60 square mile study area located in Berkeley County based on an average of about 40-inches per year of precipitation. A Drought-year precipitation total of about 24.7-inches has an effective recharge of approximately 6.14-inches per year. The 1995 USGS Report data were collected between the years 1989 and 1990. This recharge rate was estimated by using a hydrologic budget approach and calculating the discharge of the groundwater basin area and completing an extensive study of stream and spring discharges. However, for the purposes of this report an estimated percentage of precipitation based on the 1995 recharge rate will be utilized for the site-specific recharge rates.

4.0 WELL DRILLING

As part of this evaluation, two approved drilling locations indicated on the Test Well Location Plan were explored. Negley's Well Drilling (Negley's) performed well drilling and installation operations, by making use of an air rotary drilling rig. The newly drilled locations are Wells MW-A and MW-B as indicated on the Plan. Well logs completed for these wells are attached to this Report in **Appendix B**. The following bullets briefly summarize information regarding the newly drilled locations.

- Well MW-A was drilled to a depth of approximately 255 feet below existing ground surface (ft bgs); 6-inch inside diameter (I.D.) steel casing was installed and tremie-grouted to approximately 121 ft bgs. Relatively major water bearing zones were encountered at approximately 141-150, 155-156, 163-165, and 167-169 ft bgs. Cumulative driller preliminary air-lift yield was estimated to be upwards of about 150 gpm or more. Due to the presence of mud in the borehole, MW-A was used only as a monitoring well. The static water level measured on 3-6-2022, was 5.75 ft bgs.

- Well MW-B was drilled to a depth of approximately 225 ft bgs, 6-inch I.D. steel casing was installed and grouted to approximately 78 ft bgs. Well MW-B was initially drilled as a 6-inch I.D. pilot hole, and subsequently reamed to 10-inch I.D., based on apparent relatively high production potential. Major water bearing zones were encountered at about 87-88, 118-119, and 173-187 ft bgs. Cumulative driller preliminary air-lift yield was estimated to be approximately 2,000-4,000 gpm. The static water level measured on 3-6-2022, was 5.49 ft bgs.

Well MW-B was developed such that discharge water was free of cuttings and sediment. It is noted that MW-A was not able to be developed appropriately due to the presence of mud in the borehole. Wells MW-A and MW-B were also fitted with locking well caps.

5.0 DOWN-HOLE VIDEO LOGGING

Negley's utilized a Portable Borehole Camera to conduct down-hole video observation in Well W-B. The color borehole camera was used to observe the well casing and distinctive features that may be present within the well. The camera was lowered from the ground surface to approximately 195 ft bgs, with a "down-view" camera angle to observe whether the wells were free of obstructions and a rotating "side-view" camera angle to observe conditions within the well from the bottom of the well, up to the ground surface.

A summary of the down-hole video logging for Well MW-B, is provided herein. It is noted that well logs, in part, are based on materials that are brought to the surface after the depths at which they are encountered have been penetrated. Consequently, depth estimates for encountered features can be less precise than those generated by a down-hole logging system, such as a caliper log or video. Additionally, relatively small openings and variations in the borehole diameter, detected by logging systems, may be unnoticed during the drilling processes. The full down-hole video file for the existing well should be reviewed for additional information on observed well conditions.

The down-hole view of the camera indicated that the bottom of steel casing was at about 84.3 ft bgs. The camera was lowered to a depth of approximately 195 ft bgs where a fracture/void was observed. The camera uses four centralizing bands that expand away from the camera in order to keep the camera in the center of the borehole. The centralizing bands can become lodged in the fracture/void, which threatened to inhibit the movement of the camera and to cause the potential loss of the camera. Therefore, the camera was not lowered further. The side-view camera angle indicated zones that appeared to be associated with relatively weathered rock and/or fractures, including at the following approximate depths: about 120, 145, 168, 175-195+.

The well log indicates that water-bearing fractures were encountered at about 118-119 and 173-187 ft bgs. The video log appears to indicate relatively pronounced features in agreement (within 2-3 feet) with the well log.

6.0 AQUIFER TESTING OPERATIONS AND RESULTS

An aquifer test was performed using Well MW-B as the pumping well, and observing groundwater levels in two observation wells, MW-A and PW-1. The following includes a summary of information regarding the wells used in testing, the test operations, the analysis aquifer testing data, and a discussion of recharge.

6.1 Pumping Well and Observation Points

The Pumping Well and observation Point locations are shown on the Test Well Location Plan. Select, available well information is summarized for wells used in the aquifer test in *Table 1.*

Triad observed groundwater levels within pumping Well MW-B and observation wells during the aquifer testing, i.e., Wells MW-A and PW-1. Lake Louise, and the Spring, were also observed and is situated approximately 350 ft to the southwest of the pumping Well MW-B. Wells MW-B, MW-A, and PW-1 were observed utilizing electronic water level probes and Van Essen Diver pressure transducers. A Barologger was also deployed at the site to collect atmospheric pressure data for use in compensation of groundwater level data. The Spring was also observed utilizing electronic water level probes and Van Essen Diver pressure transducers. Groundwater level measurements were recorded to the nearest 0.01-foot. It is noted that PW-1 is an actively pumped supply well for the mobile home park that is on-site which was in operation during the pumping test of MW-B.

Table 1: Summary of Well and Pumping Test Data

Well ID	Well Type	Approximate Latitude**	Approximate Longitude**	Total Well Depth (ft bgs)	Casing Depth (ft bgs)	Static Depth to Water (ft bgs)*	Depth to Potential Water-Bearing Fractures (ft bgs)	Approximate Distance from Pumping Well MW-B (ft)	Pumping Test Rate (gpm)	Max. Change in Water Level During Aquifer Test (ft) MW-B (124.5-hr)
MW-B	Pumping (Proposed Production)	39.300675°	-77.968529°	225	78	5.49	87-88, 118-119, and 173-187	0	1,200	5.35
MW-A	Observation	39.300922°	-77.968996°	255	121	5.75	141-150, 155-156, 163-165, and 167-169	160' West	N/A	0.57
PW-1	Observation	39.304666°	-77.966652°	Unknown	Unknown	18.8	Unknown	1,550' Northeast	N/A	2.06<
Spring	Observation	39.300120°	-77.969513°	Unknown	N/A	4.2	N/A	350 Southwest	N/A	0.11>

Notes: N/A: Not Applicable

* Static water levels measured on 3-6-22, prior to test initiation

** Estimated based on Google Earth

Ft bgs – feet below existing ground surface
Gpm – gallons per minute
< It is noted that PW-1 is actively being pumped to supply water to the mobile home park. Max change in water level is affected by the pumping interval of the installed pump.
> Level is potentially impacted by wind and precipitation

Triad also observed streamflow measurements near the intersection of Turkey Run and Queen Street, in Middleway, WV, which is located approximately 4,500 feet to the west of MW-B and is shown on the Test Well Location Plan. Triad monitored streamflow measurements by making use of a stream gauge. Water levels were monitored throughout the test to ensure that water was not recycling within the spring back into the groundwater. Table 2 below summarizes the results of the stream monitoring. It is noted that, due to human error, it is possible that the flow values could be off by +/- 0-200 gpm. The flow at the monitoring location shows that it increased by approximately 1,200 gpm, which would indicate that there was no recycling of discharge water back into the aquifer.

Table 2: Summary of Stream Flow Monitoring

Date	Time	Flow (cfs)	Flow (gpm)
3/6/2022	10:00	8.14	3,651.1
3/6/2022	18:00	8.99	4,035.0
3/8/2022	9:30	9.73	4,368.2
3/9/2022	8:00	10.64	4,776.1
3/10/2022	17:00	10.71	4,807.1
	Difference	**2.58**	**1,156.0*** **

Notes: cfs - Cubic Feet per Second
gpm - Gallons per Minute
*** +/- 0-200 gpm due to human error

6.2 Step-drawdown Test

Triad performed a step-drawdown test of Well MW-B on 3-1-22, with successively increasing pumping segments of about 700, 1,052, 1,200, and 1,400 gpm, each with an equal duration of about 120 minutes. Step testing provided information for determining the pumping rate for the 124.5-hour aquifer test, i.e., 1,200 gpm. The step-drawdown hydrograph is attached to this Report in **Appendix D**.

6.3 Aquifer Test Operations

The aquifer test consisted of a 124.5-hour constant rate pumping test of Well MW-B, at a rate of approximately 1,200 gpm. The aquifer test was performed during the period of March 6 through March 11, 2022.

Prior to initiation of the aquifer test, static groundwater levels were measured in the pumping well and within observation points (see *Table 1* for measured static water levels). Wells MW-B, MW-A, PW-1, and the Spring were observed utilizing electronic water level probes and Van Essen Diver pressure transducers, while stream flow monitoring was observed via staff gauge near the intersection of Turkey run and Queen Street in

Middleway, WV. An electronic Barologger was also deployed, through which atmospheric barometric pressure data was collected, which was subsequently used to compensate for changes in barometric pressure. Groundwater level measurements were recorded to the nearest 0.01-foot.

A submersible pump was lowered into Well MW-B, to a depth of approximately 80 ft bgs, by Negley's for test performance. A monitoring tube was installed within the pumping well to prevent instrumentation from being entangled within the well, and to avoid influence of potential cascading water. A generator was mobilized to provide a power source for the pump. Discharge from the pumping well was regulated by a ball valve. A flow meter was utilized for discharge rate measurements. Discharge rate measurements were measured every 60 minutes or less during aquifer testing. Discharged groundwater was directed away from the test area using approximately 700-feet of discharge hose. The discharge ran from Well MW-B to the outflow of Lake Louise, located to the west of Well MW-B. A discharge apparatus was constructed to prevent scouring of the streambed and to prevent discoloration of the stream. Additionally, all discharge water was observed to be clear during the test. Images of the discharge apparatus and discharging water are included in **Appendix C**.

6.4 Aquifer Test Observations

Triad analyzed the results of the aquifer test to evaluate the yield potential of Well MW-B, and the potential for well interference between Wells MW-B, MW-A, PW-1, and Lake Louise/Spring. Time drawdown hydrographs of water levels observed within Pumping Well MW-B and Observation Points MW-A, PW-1, and the Spring, are attached to this Report in **Appendix D**. Based on review of the hydrographs for Observation Points MW-A, PW-1, and the Spring, it appears that groundwater levels are minimally influenced by the pumping of proposed production Well MW-B. Observed maximum drawdown in those wells is indicated in *Table 1*.

6.5 Aquifer Parameter Estimation

Time-drawdown data from the 124.5-hour aquifer test were plotted and analyzed via the Theis (1935) theoretical model using the Aqtesolv program (Hydrosolve, Inc., 2007), to evaluate aquifer parameters. The analysis resulted in a transmissivity (T) value of approximately 3.683E+5 ft^2/day with a saturated thickness of 300 feet. Storage coefficient values obtained through aquifer test analysis are estimated to be approximately 2.828E-34. The analysis resulted in an approximate hydraulic conductivity (K) value of 1,227.6 ft/day.

6.6 Well MW-B Yield Estimation

The sustainable yield of Well MW-B was estimated based upon consideration of testing results, including projection of the 1,200 gpm aquifer test and projection of Well MW-B time drawdown data to 1, 6, 12, and 30-years: and an observed water column of about 82 feet above the uppermost water-bearing fracture in Well W-1B (available drawdown).

As previously noted, the 1, 6, 12, and 30-years projection of Well MW-B time-drawdown data (for the 1,200 gpm test rate) indicates that the water level in Well MW-B would remain above the uppermost major water-bearing zone. Allowing for the potential lowering of the groundwater table due to drought conditions, by up to about 20 feet (extreme case), results in an estimated sustainable yield for Well MW-B of at least 1,200 gpm, or 1.728 million gpd.

7.0 SAMPLING COLLECTION AND ANALYSIS

Triad personnel collected one sample from each of Well MW-B and Lake Louise, near the point of discharge of the spring, during the aquifer test. The samples were collected in general accordance with standard industry practice. The samples were decanted directly into laboratory-cleaned sampling containers, immediately placed on ice to maintain a temperature of 4ºC, and transported to Eurofins, located in Mechanicsburg, Pennsylvania

for analysis. The samples were analyzed for parameters which is beyond what is required by the West Virginia Department of Health for new potable groundwater sources. The analysis in general included volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, inorganic chemicals (IOCs), bacteriological, and radiological parameters. The analytical data are summarized on the laboratory Certificate of Analysis reports, attached to this Report in **Appendix E**.

During the aquifer test, Triad personnel collected periodic groundwater quality measurements from Well MW-B, by making use of a Hanna multi-parameter water quality meter. The meter was used to monitor parameters to include temperature, pH, oxygen reduction potential (ORP), electrical conductivity, turbidity, and dissolved oxygen.

7.1 Well MW-B Sampling Results

The laboratory analytical results for Well MW-B indicate that VOCs and SVOCs were not detected. The results for IOCs were either not detected or were detected at levels below their respective United States Environmental Protection Agency (USEPA) drinking water standard. Total coliform and E. coli were detected within the sample; Total coliform was detected at 200 colony forming units per 100 milliliters (cfu/100 ml); E. coli was detected at 10 cfu/100 ml.

Metals were not detected or were detected below their respective USEPA Maximum Contaminant Levels (MCLs) or Secondary Drinking Water Standards (SDWS). According to the USEPA, Secondary Drinking Water Standards are non-enforceable guidelines related to aesthetic and cosmetic effects in drinking water.

The laboratory analytical results indicated that detections of combined radium 226 and 228 were below the USEPA MCL of 5 picocuries per liter (pCi/L). The combined Radium 226 and 228 was 0.870 pCi/L. Gross Alpha was detected in the sample (2.93 pCi/l) but is below the USEPA MCL of 15 pCi/l. Gross Beta was also detected in the sample (0.17 pCi/l) but

is below the USEPA MCL of 50 pCi/l. See **Appendix E** for detailed information regarding laboratory analytical results.

The multi-parameter instrument results were as follows: temperature readings from Well MW-B ranged from 12.6° to 14.22° Celsius; pH ranged from 7.22 to 7.38; ORP ranged from 87.6 to 142 millivolt (mV); electrical conductivity ranged from 546 to 651 micro siemens per centimeter (mS/cm); dissolved oxygen ranged from 9.14 to 10 mg/L; and total dissolved solids (TDS) ranged from 231 to 338 parts per million (ppm).

The results of the groundwater sampling and analysis for analyzed parameters associated with Well MW-B, indicate that the sampled groundwater produced by the well is generally suitable for potable use, assuming appropriate treatment is implemented to reduce/remove total coliform and E. coli.

7.2 The Spring Sampling Results

The laboratory analytical results for the Spring indicate that VOCs and SVOCs were not detected. The results for IOCs were either not detected or were detected at levels below their respective USEPA drinking water standard. Total coliform and E. coli were detected within the sample; Total coliform was detected at 330 colony forming units per 100 milliliters (cfu/100 ml); E. coli was detected at 3 cfu/100 ml.

Metals were not detected or were detected below their respective USEPA Maximum Contaminant Levels (MCLs) or Secondary Drinking Water Standards (SDWS). According to the USEPA, Secondary Drinking Water Standards are non-enforceable guidelines related to aesthetic and cosmetic effects in drinking water.

The laboratory analytical results indicated that detections of gross alpha and combined radium 226 and 228 were not detected. Gross Beta was detected in the sample (0.17 pCi/l), but is below the USEPA MCL of 50 pCi/l. See **Appendix E** for detailed information regarding laboratory analytical results.

The multi-parameter instrument results at the time of sampling were as follows: temperature readings from Lake Louise were 12.62° Celsius; pH was 7.30; ORP was 98 mV; electrical conductivity was 571 mS/cm; dissolved oxygen was 10.18 mg/L; and TDS was 286 ppm.

The results of the sampling and analysis for analyzed parameters associated with Lake Loise, indicate that the sampled groundwater produced by the well is suitable for potable use, assuming appropriate treatment is implemented to reduce/remove total coliform and E. coli.

8.0 RECHARGE EVALUATION

Triad prepared a recharge evaluation to provide an estimate of groundwater recharge that replenishes the aquifer system tapped by Well MW-B. Triad provides a comparison herein of estimated recharge estimate with the proposed withdrawal of about 1.728 million gpd from Well MW-B. The area of recharge applicable to this evaluation is assumed to be the approximate watershed indicated by the United States Geological Service (USGS) StreamStats website.

Triad estimated the total area of recharge by the approximate watershed indicated by the United States Geological Service (USGS) StreamStats website. The USGS StreamStats Report is attached to this Report in **Appendix F**. Based on an average annual and drought-year recharge estimates of 10- and 6.14-inches per year (see *Section 3.0*), and an evaluation area of approximately 3,027.21 acres, the respective estimated daily recharge for the area is approximately 2,252,102 and 1,383,408 gpd. Comparison of the recharge estimate with the proposed groundwater withdrawal of about 1,200 gpm, or 1,728,000 gpd indicates that there is enough available recharge, and that the proposed withdrawal is feasible with respect to normal recharge values. If the withdrawal rate was increased to 1,500 gpm, or 2,160,000 gpd, the withdrawal would be feasible with respect to normal recharge conditions. Additionally, if the pumping rate was increased to 2,000

gpm, or 2,880,000 gpd, the withdrawal rate would be greater than that of the approximate normal recharge conditions to the drainage basin. It is important to note that this recharge estimate only takes into consideration recharge from precipitation falling within the basin and does not account for groundwater recharge from adjoining basins.

9.0 AREA OF IMPACT EVALUATION

To facilitate the Area of Impact (AOI) analysis, a groundwater flow model was constructed. Triad utilized the U.S. Geological Survey three-dimensional groundwater flow modeling program MODFLOW (McDonald and Harbaugh, 1988), as incorporated into Groundwater Modeling System (GMS), Aquaveo. A Conceptual MODFLOW model with grid dimensions of 5,000 by 5,000 feet and more refined grid spacing at the areas around the simulated pumping location. Model boundaries were extended to 5,000 feet to reduce the potential for boundary influence on the simulated well. The model was constructed with one layer, and a saturated thickness of approximately 300 feet was assumed in the model based on observed static groundwater levels and the depths drilled by the well used in the aquifer testing. Model parameters included a hydraulic conductivity of approximately 1,227.6 ft/day based on the geometric mean T-value of 3.683E+5 ft^2/day and the 300-foot aquifer thickness (see *Section 5.5*). A specific storage of 1.1E-5 was used for storage property assignment to the simulated aquifer materials. An effective recharge rate of 10-inches per year was incorporated into the model. Prescribed head and low-flow boundaries were assigned at the margins of the model.

9.1 1,200 gpm Flow Model

A steady state simulation was performed without simulated pumping to obtain a set of initial head values for the transient simulation. A transient simulation was then performed over a 1, 6, 12, and 30-year period incorporating the withdrawal from Well MW-B, pumping at 1,200 gpm or about 1.728 million gpd. The results of the transient simulation, under normal conditions, are attached to this Report in **Appendix G**, and indicates that MW-B will have less than approximately 2 feet and 5 feet of drawdown after 1 and 30-

years of pumping, respectively. At the edges of the model, approximately 5,000 feet away from MW-B, there would be less than approximately 1- and 4-feet of drawdown after 1 and 30-years of pumping, respectively.

A transient simulation was then performed over a 1-year period incorporating the withdrawal from Well MW-B, pumping at 1,200 gpm or about 1.728 million gpd during drought conditions (6.14-inches per year). The results of the transient simulation, under drought conditions, are attached to this Report in **Appendix G**, and indicate that there is approximately 4 feet of drawdown at the pumping well and approximately 3 feet at the edges of the 5,000 by 5,000 foot model after 1 year.

It is noted that the predicted drawdown associated groundwater flow model is less than the drawdown observed during the aquifer testing. This may be due to several conditions including the following: recharge is input to the model at a constant rate over the modeled area as compared with potentially lower recharge spatially and temporally in reality; flow in the model is simulated throughout the aquifer thickness whereas flow to Well MW-B during testing may have been more concentrated in bedding planes/fractures resulting in greater drawdown propagation at the higher pumped rate than simulated, etc.

9.2 2,000 gpm flow model

Additionally, a second AOI evaluation was performed with a higher pumping rate of 2,000 gpm. Again, a steady state simulation was performed without simulated pumping to obtain a set of initial head values for the transient simulation. A transient simulation was then performed over a 1, 6, 12, and 30-year period incorporating the withdrawal from Well MW-B, pumping at 2,000 gpm or about 2.880 million gpd. The results of the transient simulation are attached to this Report in **Appendix G**. The flow model indicates the following: Drawdown at Well MW-B would be less than approximately 5, 22, 42, and 101 feet after 1-, 6-, 12-, and 30-years of pumping, respectively; drawdown at approximately

5,000 feet from Well MW-B would be less than approximately 4, 21, 41, and 100 feet after 1-, 6-, 12-, and 30-years of pumping, respectively.

It is noted that the predicted drawdown associated with this groundwater flow model is more than the drawdown prediction calculations (see section 8.3) for the time periods of 6-, 12, and 30-years. This may be due because the recharge is input into the model at a constant rate over the modeled area whereas the drawdown calculations have infinite or non-definable area, which would result in greater drawdown in the flow model versus the drawdown prediction calculations.

A transient simulation was then performed over a 1-year period incorporating the withdrawal from Well MW-B, pumping at 2,000 gpm or about 2.880 million gpd during drought conditions (6.14-inches per year). The results of the transient simulation, under drought conditions, are attached to this Report in **Appendix G**, and indicate that drawdown at Well MW-B would be less than approximately 7 feet after 1-year of pumping and drawdown at approximately 5,000 feet from Well MW-B would be less than approximately 6 feet after 1-year of pumping.

9.3 Theis Method Drawdown Prediction Calculations

As a secondary check of the MODFLOW model, Triad utilized a modified Theis equation to predict drawdown at the well location and up to 2,000 feet from the pumping well. Based on the transmissivity value of 3.683E+5 ft^2/day, a storage coefficient of 2.828E-34, a withdrawal rate of 1,200 gpm, and **no recharge,** would lower the water level by about 4.71 and 4.88 feet at the pumping well after 1 and 30 years, respectively. The water level would lower by about 4.18 and 4.35 feet at approximately 2,000 feet from the pumping well after 1 and 30-years, respectively. It is noted that if recharge was incorporated into the drawdown calculations, it would likely decrease the amount of lowering that occurs to the water level.

Under drought conditions, 6.14 inches per year, the water level would lower by about 8.47 feet at the well and by about 7.52 feet at approximately 2,000 feet from the pumping well after 1 year of drought conditions while pumping the well at 1,200 gpm.

Additionally, with a withdrawal rate of 2,000 gpm, and **no recharge**, the water level would lower by about 7.84 and 6.96 feet at the pumping well after 1 and 30 years, respectively. The water level would lower by about 8.13 and 7.24 feet at approximately 2,000 feet from the pumping well after 1 and 30-years, respectively. It is noted that if recharge were incorporated into these drawdown calculations, it would likely decrease the amount of drawdown that occurs.

Under drought conditions, 6.14 inches per year, the water level would lower by about 11.61 feet at MW-B and by about 10.3 feet at approximately 2,000 feet from the pumping well after 1 year of drought conditions while pumping the well at 2,000 gpm.

The predicted future drawdown calculations are attached to this Report in **Appendix G**.

10.0 CONCLUSIONS AND RECOMMENDATIONS

The results of the hydrogeological assessment indicate that Well MW-B can yield 1,200 gpm (or about 1.728 million gpd) without adversely impacting off-site wells. Water quality results for Well MW-B indicate that analyzed parameters were associated with concentrations below USEPA drinking water standards (for parameters associated with such standards). An exception is total coliform and E. coli which were greater than the regulatory standard for the parameters. Bacteria (total coliform and E. coli) in groundwater can be effectively treated to acceptable levels. The results of our recharge analysis indicate that the recharge to the aquifer system under normal conditions is greater than the anticipated withdrawals. The results of this evaluation indicate that the use of Well MW-B for potable supply at a rate up to about 1,200 gpm is feasible, pumping continually or as needed, provided appropriate treatment is applied to water produced by the well. Based on

the results of this evaluation, Well MW-B is capable of meeting and exceeding the anticipated 1.728 million gpd demand.

The results of this evaluation indicate that the use of Well MW-B for potable supply at a rate of up to about 2,000 gpm is feasible, but additional testing would be needed.

Triad provides the following recommendations with respect to the operation and water quality of Well MW-B:

- A Civil Engineer should review the Laboratory Certificates of Analysis data (attached in **Appendix E**) and any future analytical results, to determine the water quality treatment that may be necessary for Well MW-B as a potable source, and in the context of applicable reviewing agency requirements.

- It is recommended that groundwater pumping levels be maintained above the uppermost potential water-bearing fracture depth of approximately 87 ft bgs to avoid potential repeated exposure of the fractures to air, and to reduce the potential for mineral precipitation sealing water-bearing fracture zones.

- If a withdrawal rate of 2,000 gpm is needed, MW-B should be evaluated at a rate of 2,000 gpm and an AOI evaluation should be completed to indicate if any adverse impacts would occur to off-site wells.

- MW-B should be disinfected and resampled for total coliform and E. coli. Well disinfection can potentially remove total coliform and E. coli from instrumentation and the well casing.

- Operational groundwater level monitoring of Well MW-B should be performed on a near-continuous basis by making use of transducer/data logger instrument. A barometric logger should also be deployed in conjunction with the water level instrumentation for data compensation as applicable. A readily accessible,

permanent monitoring tube should be installed within Well MW-B for accommodation of water level logging instrumentation and electronic water level probe. Well MW-B should also be equipped with a flow meter/logging device.

- Observation Wells MW-A (if not abandoned) and PW-1 should be equipped with similar water level logging instrumentation as indicated herein for Well MW-B for operational monitoring.

- Triad should be afforded the opportunity to review operational monitoring data following system start up and on a quarterly basis for at least the initial year of production, in order to evaluate operational performance and provide additional recommendations as applicable.

End of Report

Appendix A

Test Well Location Plan

Triad Project No. 03-20-0377

N

TRIAD ENGINEERING, INC.

Test Well Location Plan

Triad Project No. 03-20-0377

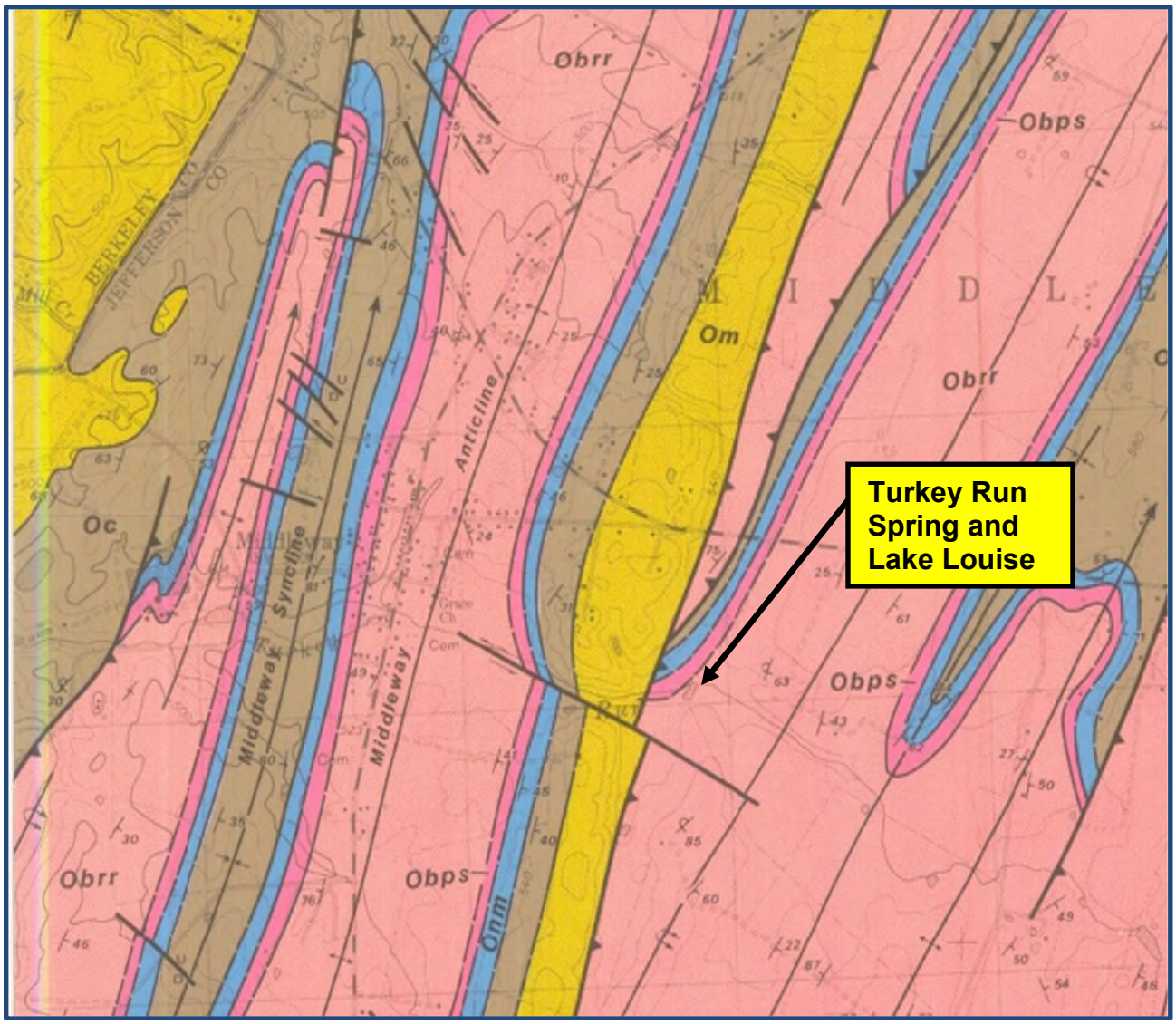
N

TRIAD ENGINEERING, INC.

Turkey Run

Triad Project No. 03-20-0377

Geologic Map

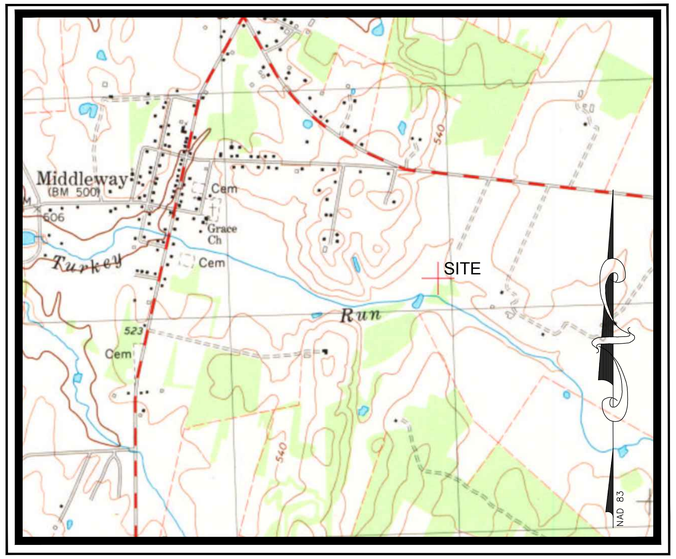


Not to Scale
Original Map Scale 1:24,000
Contour Interval: 20 Feet

N

TRIAD ENGINEERING, INC.

VICINITY MAP:



SCALE: 1" = 1,000'

LEGEND:

- INDICATES STUDY LIMITS
- W / W — INDICATES SUSPECT JURISDICTIONAL WATERS OF THE U.S. AND/OR WATERS OF THE STATE IN THE FORM OF PALUSTRINE FORESTED (PFO) WETLANDS.
- DP-# — INDICATES DATA PLOT SAMPLING LOCATION
- PP-# — INDICATES PICTURE POINT LOCATION AND DIRECTION
- TP-1 — INDICATES TEST PIT LOCATION
- W — WELL LOCATION
- FS12 — EXISTING 12 INCH FILTER SOCK
- EXISTING FOREST COVER - POST DISTURBANCE

GENERAL NOTES:

1) SUSPECT JURISDICTIONAL WATERS OF THE U.S., AND WATERS OF THE STATE OF WEST VIRGINIA, INCLUDING WETLANDS, SHOWN HEREON WERE DELINEATED AND FLAGGED AS PART OF A WETLAND DELINEATION STUDY BY TRIAD ENGINEERING ON FEBRUARY 15, 2022 AND SUBSEQUENTLY LOCATED AS PART OF A FIELD-RUN SURVEY BY FOX AND ASSOCIATES, INC.ON FEBRUARY 17, 2022.

2) BOUNDARY AND TOPOGRAPHY INFORMATION SHOWN HEREON WAS PROVIDED BY FOX AND ASSOCIATES, INC.

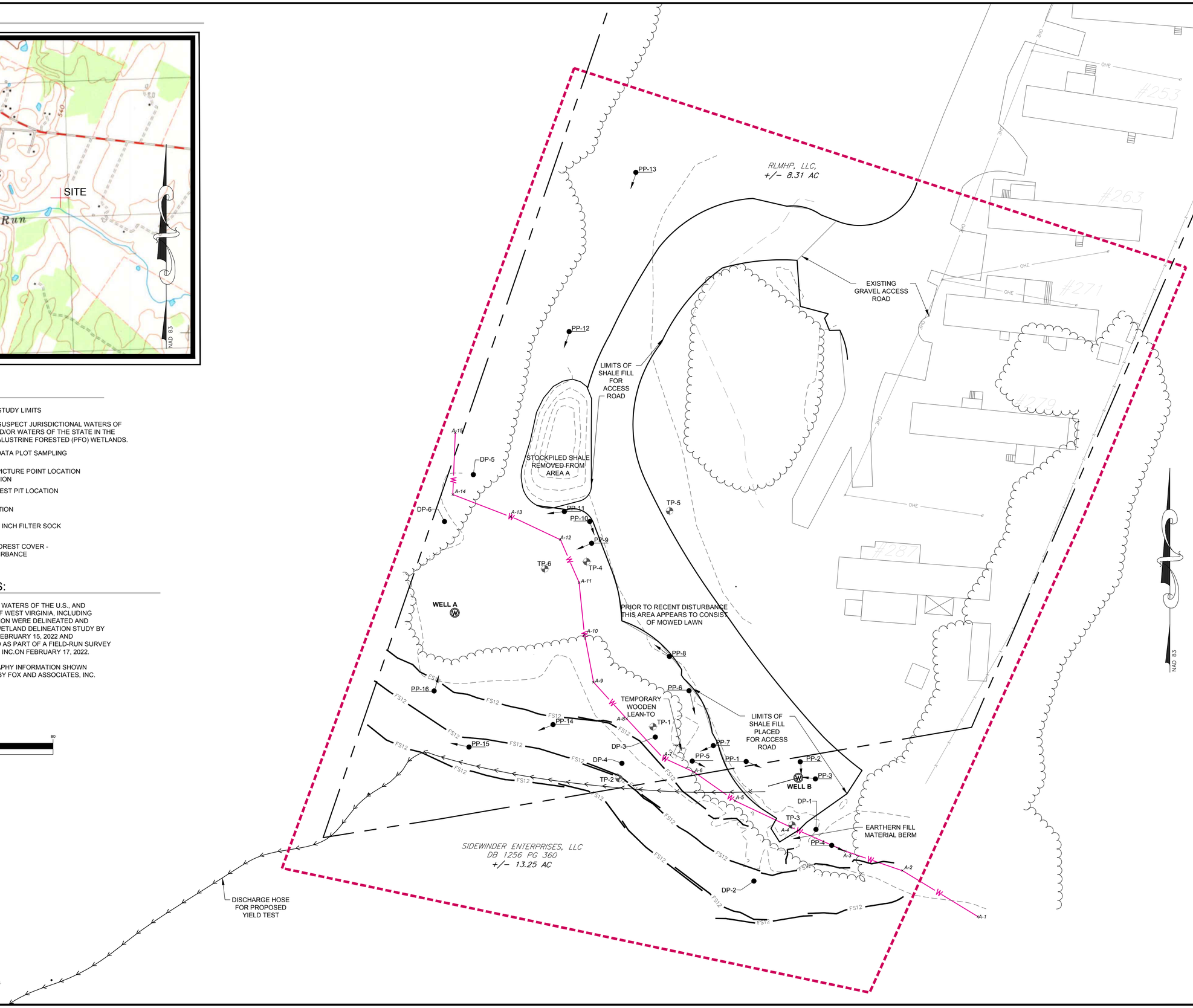
GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

APPLICANT CONTACT INFO:

NAME: SIDEWINDER ENTERPRISES, LLC
ADDRESS- 2420 MANHATTAN AVENUE
MANHATTAN BEACH, CALIFORNIA 90266



TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND ○ PENNSYLVANIA ○ VIRGINIA ○ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY

CADD FILE:
DRAWN BY: PMU
CHECKED BY: TJK
DATE: 2-23-2022
SCALE: 1"=20'

WETLAND DELINEATION PLAN

PORTIONS OF RLMHP LLC AND SIDEWINDER ENTERPRISES PROPERTIES

MIDDLEWAY, JEFFERSON COUNTY WEST VIRGINIA

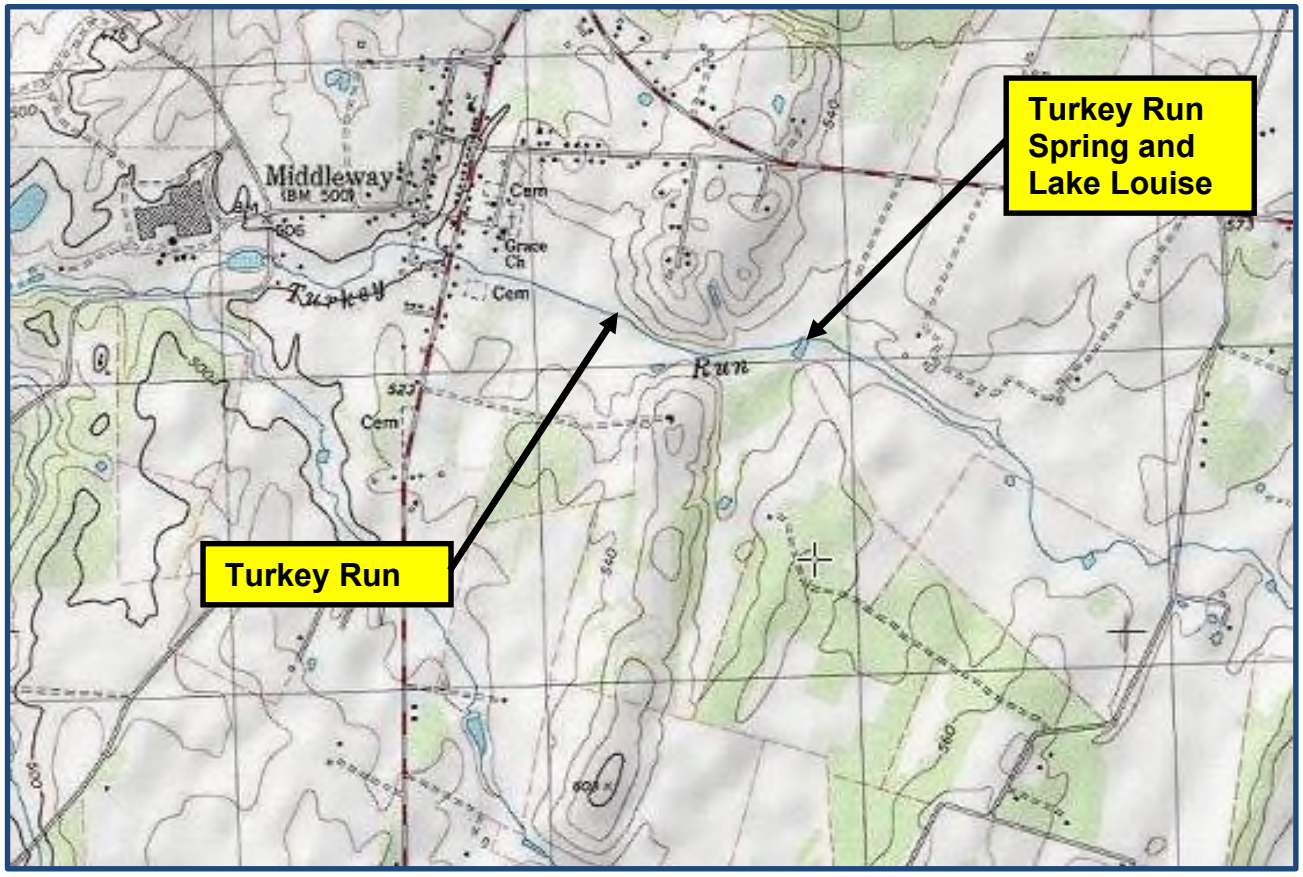
TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
WDP
JOB NO.: 03-20-0377

Turkey Run

Topographic Map

Triad Project No. 03-20-0377



Sources:

U.S Geological Survey
Middleway Quandrangle
West Virginia
7.5 Minute Series
2019

U.S. Geological Survey
Inwood Quadrangle
West Virginia
7.5 Minute Series
2019

N

TRIAD ENGINEERING, INC.

Appendix B

Well Logs

Triad Engineering, LLC
4999 Louise Drive
Mechanicsburg, PA 17055

WELL NUMBER MW-A

CLIENT Sidewinder Enterprises LLC.
PROJECT NAME Turkey Run
PROJECT NUMBER 03200377
PROJECT LOCATION Russell Way, Kearneysville, WV
DATE STARTED 11/30/21 **COMPLETED** 12/2/21
GROUND ELEVATION 518 ft Topo **HOLE SIZE** 6
DRILLING CONTRACTOR Negley's Well Drilling
GROUND WATER LEVELS:
DRILLING METHOD Air Rotary
AT TIME OF DRILLING ---
LOGGED BY Mike Yamrick **CHECKED BY** Nick Wolfe
AT END OF DRILLING ---
NOTES Depth to water taken on 3-6-22
AFTER DRILLING 5.75 ft / Elev 512.25 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION		WELL DIAGRAM
0						Casing Top Elev: 521 (ft) Casing Type: 6 Inch Steel
		GW		(GW) Fill	517.0	
				1.0		
		CL		(CL) Dark brown Topsoil		
5				6.0 ▼	512.0	
				Gray Limestone		
10						
				14.0	504.0	
15				Weathered Limestone		
				15.0	503.0	
				Gray Limestone		
				16.0	502.0	
				Weathered Limstone; Water Present		
				17.0	501.0	
20				Gray to dark gray Limestone		
25						
30						
35						

(Continued Next Page)

Triad Engineering, LLC
4999 Louise Drive
Mechanicsburg, PA 17055

CLIENT Sidewinder Enterprises LLC. **PROJECT NAME** Turkey Run

PROJECT NUMBER 03200377 **PROJECT LOCATION** Russell Way, Kearneysville, WV

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35				Gray to dark gray Limestone *(continued)*	
40				40.0 — 478.0	
				Light gray Limestone with calcite	
45				46.0 — 472.0	
				Gray Limestone	
50					
55					
60					
65					
70					
75					

(Continued Next Page)

Triad Engineering, LLC
4999 Louise Drive
Mechanicsburg, PA 17055

WELL NUMBER MW-A

CLIENT Sidewinder Enterprises LLC. **PROJECT NAME** Turkey Run

PROJECT NUMBER 03200377 **PROJECT LOCATION** Russell Way, Kearneysville, WV

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
75				Gray Limestone *(continued)*	
80				80.0 — 438.0	
85				Highly weathered Limestone; Water and Mud Present.	
90				90.0 — 428.0	
95				Void	
100					
105					
110					
115					

(Continued Next Page)

Triad Engineering, LLC
4999 Louise Drive
Mechanicsburg, PA 17055

WELL NUMBER MW-A

CLIENT Sidewinder Enterprises LLC. **PROJECT NAME** Turkey Run

PROJECT NUMBER 03200377 **PROJECT LOCATION** Russell Way, Kearneysville, WV

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION		WELL DIAGRAM
115						
				116.0 Void *(continued)*	402.0	
				Solid Rock; No Cutting Return		
120				121.0	397.0	
				Casing Set at 121'		
				Gray to dark gray Limestone		
125						
				129.0	389.0	
130				130.0 Fracture	388.0	
				Gray to dark gray Limestone		
				132.0	386.0	
				Highly Weathered Limestone with Fracture		
135				135.0	383.0	
				Weathered Limestone		
				139.0	379.0	
140				140.0 Gray to dark gray Limestone	378.0	
				141.0 Fracture	377.0	
				Gray to dark gray Limestone		
145						
150						
155				155.0	363.0	

(Continued Next Page)

Triad Engineering, LLC
4999 Louise Drive
Mechanicsburg, PA 17055

WELL NUMBER MW-A

CLIENT Sidewinder Enterprises LLC. **PROJECT NAME** Turkey Run

PROJECT NUMBER 03200377 **PROJECT LOCATION** Russell Way, Kearneysville, WV

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION		WELL DIAGRAM
155						
				156.0 Highly Weathered Limestone with Fracture	362.0	
				Void		
				158.0	360.0	
				159.0 Highly Weathered Limestone with Fracture	359.0	
160				Gray to dark gray Limestone		
				163.0	355.0	
				Highly Weathered Limestone with Fracture		
165				165.0	353.0	
				Gray to dark gray Limestone		
				167.0	351.0	
				Void		
				169.0	349.0	
170				Gray to dark gray Limestone		
				171.0	347.0	
				Highly Weathered Limestone		
				174.0	344.0	
175				Gray to dark gray Limestone		
180						
185						
190						
195						

(Continued Next Page)

CLIENT Sidewinder Enterprises LLC. **PROJECT NAME** Turkey Run

PROJECT NUMBER 03200377 **PROJECT LOCATION** Russell Way, Kearneysville, WV

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
195				Gray to dark gray Limestone *(continued)*	
200				200.0	
				Gray to dark gray Limestone	
205					
210					
215					
220					
225					
230					
235				318.0	

GENERAL BH / TP / WELL - GINT STD US.GDT - 4/22/22 16:04 - C:\USERS\MYAMRICK\DESKTOP\TRIAD WORK FILES\TURKEY RUN\GINT\TURKEY RUN.GPJ

(Continued Next Page)

Triad Engineering, LLC
4999 Louise Drive
Mechanicsburg, PA 17055

WELL NUMBER MW-A

CLIENT Sidewinder Enterprises LLC. **PROJECT NAME** Turkey Run

PROJECT NUMBER 03200377 **PROJECT LOCATION** Russell Way, Kearneysville, WV

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
235				Gray to dark gray Limestone *(continued)*	
240					
245					
250					
255				255.0	263.0

Boring Terminated at 255'

Bottom of borehole at 255.0 feet.

Triad Engineering, LLC
4999 Louise Drive
Mechanicsburg, PA 17055

WELL NUMBER MW-B

CLIENT Sidewinder Enterprises LLC.
PROJECT NAME Turkey Run
PROJECT NUMBER 03200377
PROJECT LOCATION Russell Way, Kearneysville, WV
DATE STARTED 12/2/21 **COMPLETED** 12/7/21
GROUND ELEVATION 518 ft Topo **HOLE SIZE** 10
DRILLING CONTRACTOR Negley's Well Drilling
GROUND WATER LEVELS:
DRILLING METHOD Air Rotary
AT TIME OF DRILLING ---
LOGGED BY Mike Yamrick **CHECKED BY** Nick Wolfe
AT END OF DRILLING ---
NOTES Depth to water taken on 3-6-22
AFTER DRILLING -512.51 ft / Elev 1030.51 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION		WELL DIAGRAM
0						Casing Top Elev: 521 (ft) Casing Type: 10 Inch Steel
		GW		(GW) Fill		
					3.0 / 515.0	
				Gray to dark gray Limestone		
5						
10						
					12.0 / 506.0	
				Weathered Limestone		
					14.0 / 504.0	
15				Gray to dark gray Limestone; with Calcite		
					19.0 / 499.0	
20				Weathered Limestone	20.0 / 498.0	
				Gray to dark gray Limestone		
					23.0 / 495.0	
				Void; Water and Mud Present		
25						
					26.0 / 492.0	
				Gray to dark gray Limestone		
30						
					31.0 / 487.0	
				Weathered Limestone		
					33.0 / 485.0	
				Gray to dark gray Limestone		
35					35.0 / 483.0	

(Continued Next Page)

Triad Engineering, LLC
4999 Louise Drive
Mechanicsburg, PA 17055

WELL NUMBER MW-B

CLIENT Sidewinder Enterprises LLC. **PROJECT NAME** Turkey Run

PROJECT NUMBER 03200377 **PROJECT LOCATION** Russell Way, Kearneysville, WV

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION		WELL DIAGRAM
35						
				Highly Weathered Limestone with Fracture		
				39.0	479.0	
40				Gray to dark gray Limestone		
45				46.0	472.0	
				Highly Weathered Limestone		
				48.0	470.0	
				Gray to dark gray Limestone		
50				51.0	467.0	
				Fracture		
				52.0	466.0	
				Gray to dark gray Limestone		
55				56.0	462.0	
				Fracture		
				57.0	461.0	
				Gray to dark gray Limestone		
60				60.0	458.0	
				Fracture		
				61.0	457.0	
				Highly Weathered Limestone		
				63.0	455.0	
				Gray to dark gray Limestone		
65				65.0	453.0	
				Fracture		
				66.0	452.0	
				Gray to dark gray Limestone		
70						
75						

(Continued Next Page)

Triad Engineering, LLC
4999 Louise Drive
Mechanicsburg, PA 17055

WELL NUMBER MW-B

CLIENT Sidewinder Enterprises LLC. **PROJECT NAME** Turkey Run

PROJECT NUMBER 03200377 **PROJECT LOCATION** Russell Way, Kearneysville, WV

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
75				Gray to dark gray Limestone *(continued)*	
80				81.0 437.0 Weathered Limestone	
				83.0 435.0 Gray to dark gray Limestone	
85				87.0 431.0 Fracture	
				88.0 430.0 Gray to dark gray Limestone	
90					
95					
100					
105					
110					
115					

(Continued Next Page)

Triad Engineering, LLC
4999 Louise Drive
Mechanicsburg, PA 17055

WELL NUMBER MW-B

CLIENT Sidewinder Enterprises LLC. **PROJECT NAME** Turkey Run

PROJECT NUMBER 03200377 **PROJECT LOCATION** Russell Way, Kearneysville, WV

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115				Gray to dark gray Limestone *(continued)*	
				118.0 400.0	
				Fracture 119.0 399.0	
120				Gray to dark gray Limestone	
125					
130					
135					
140					
145					
150					
155					

(Continued Next Page)

Triad Engineering, LLC
4999 Louise Drive
Mechanicsburg, PA 17055

WELL NUMBER MW-B

CLIENT Sidewinder Enterprises LLC. **PROJECT NAME** Turkey Run

PROJECT NUMBER 03200377 **PROJECT LOCATION** Russell Way, Kearneysville, WV

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
155				Gray to dark gray Limestone *(continued)*	
160					
165					
170					
				173.0	
				Large Void with mud and water present	
175					
180					
185					
				187.0	
				Gray to dark gray Limestone	
190					
195					

(Continued Next Page)

Triad Engineering, LLC
4999 Louise Drive
Mechanicsburg, PA 17055

WELL NUMBER MW-B

CLIENT Sidewinder Enterprises LLC. **PROJECT NAME** Turkey Run

PROJECT NUMBER 03200377 **PROJECT LOCATION** Russell Way, Kearneysville, WV

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
195				Gray to dark gray Limestone *(continued)*	
200					
205					
210					
215					
220					
225				225.0 293.0	
				Boring Terminated @ 225' Bottom of borehole at 225.0 feet.	

(Continued Next Page)

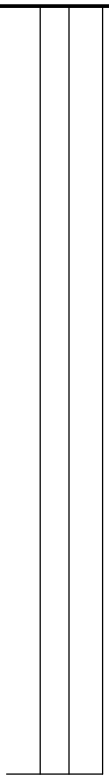
Triad Engineering, LLC
4999 Louise Drive
Mechanicsburg, PA 17055

WELL NUMBER MW-B

CLIENT Sidewinder Enterprises LLC. **PROJECT NAME** Turkey Run

PROJECT NUMBER 03200377 **PROJECT LOCATION** Russell Way, Kearneysville, WV

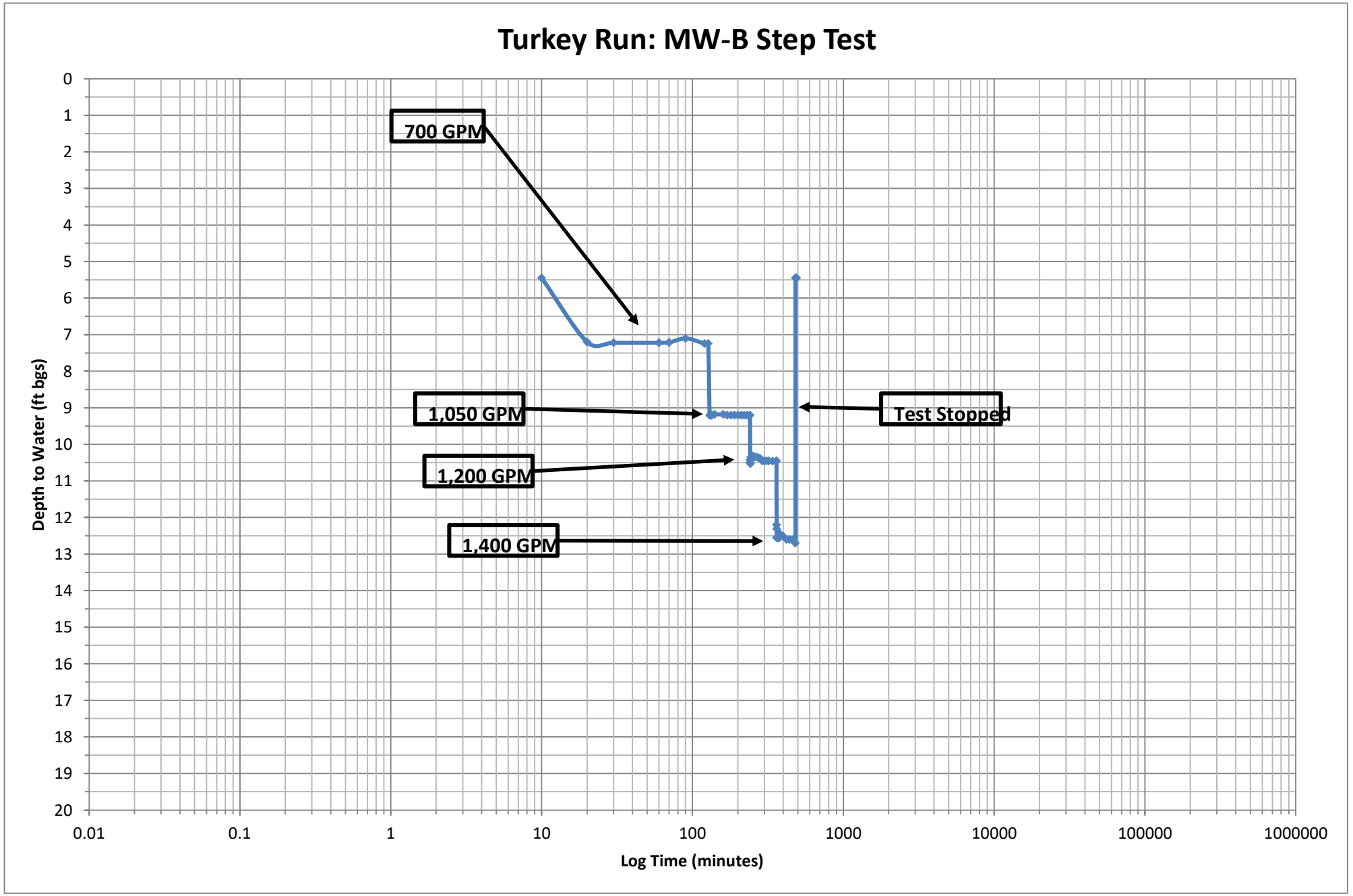
DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM

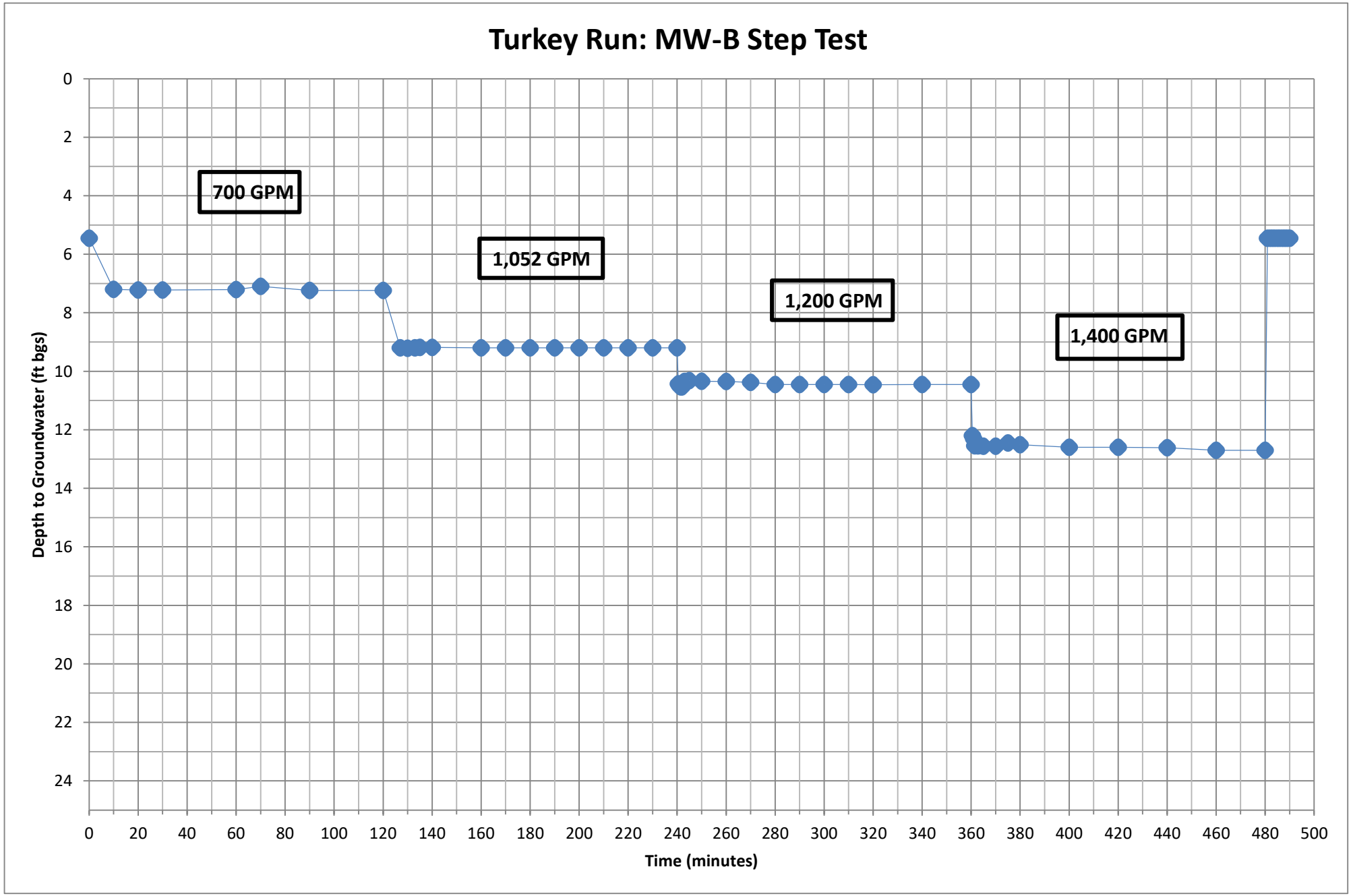


Appendix C

Appendix D

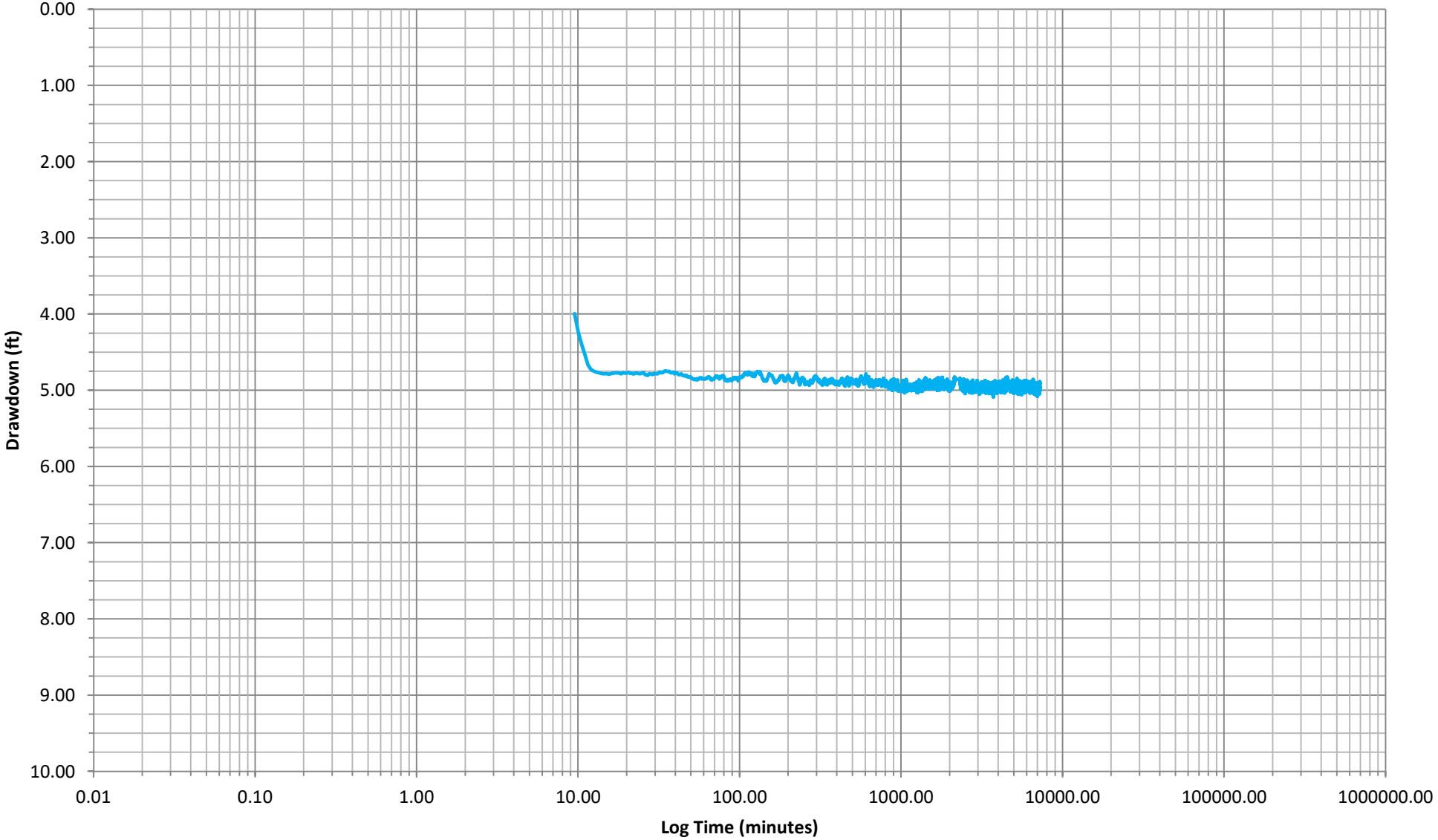
Hydrographs

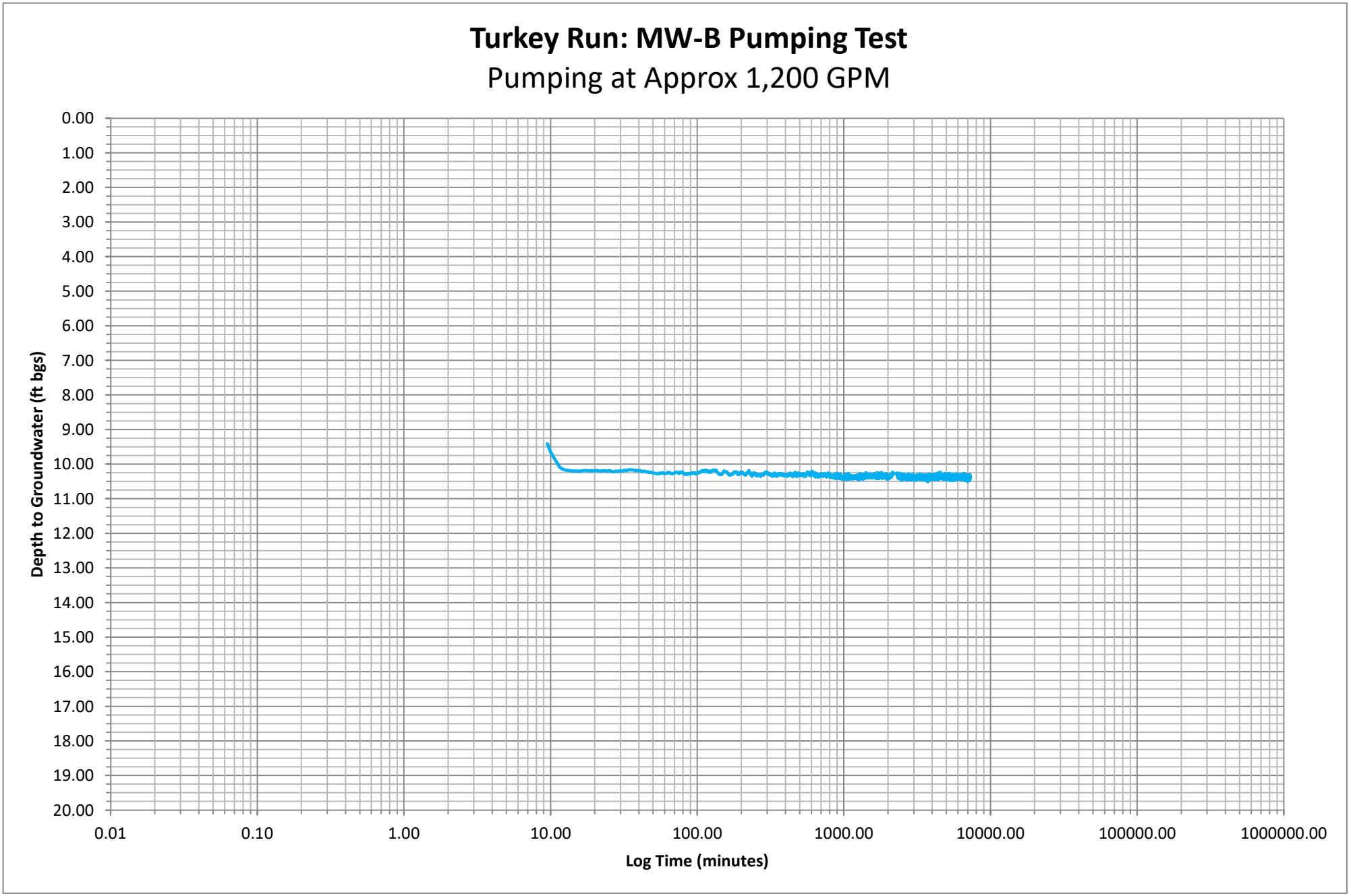

Turkey Run: MW-B Step Test
Depth to Water (ft bgs)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
0.01
0.1
1
10
100
1000
10000
100000
1000000
Log Time (minutes)
700 GPM
1,050 GPM
1,200 GPM
1,400 GPM
Test Stopped


Turkey Run: MW-B Step Test
Depth to Groundwater (ft bgs)
0
2
4
6
8
10
12
14
16
18
20
22
24
700 GPM
1,052 GPM
1,200 GPM
1,400 GPM
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
420
440
460
480
500
Time (minutes)

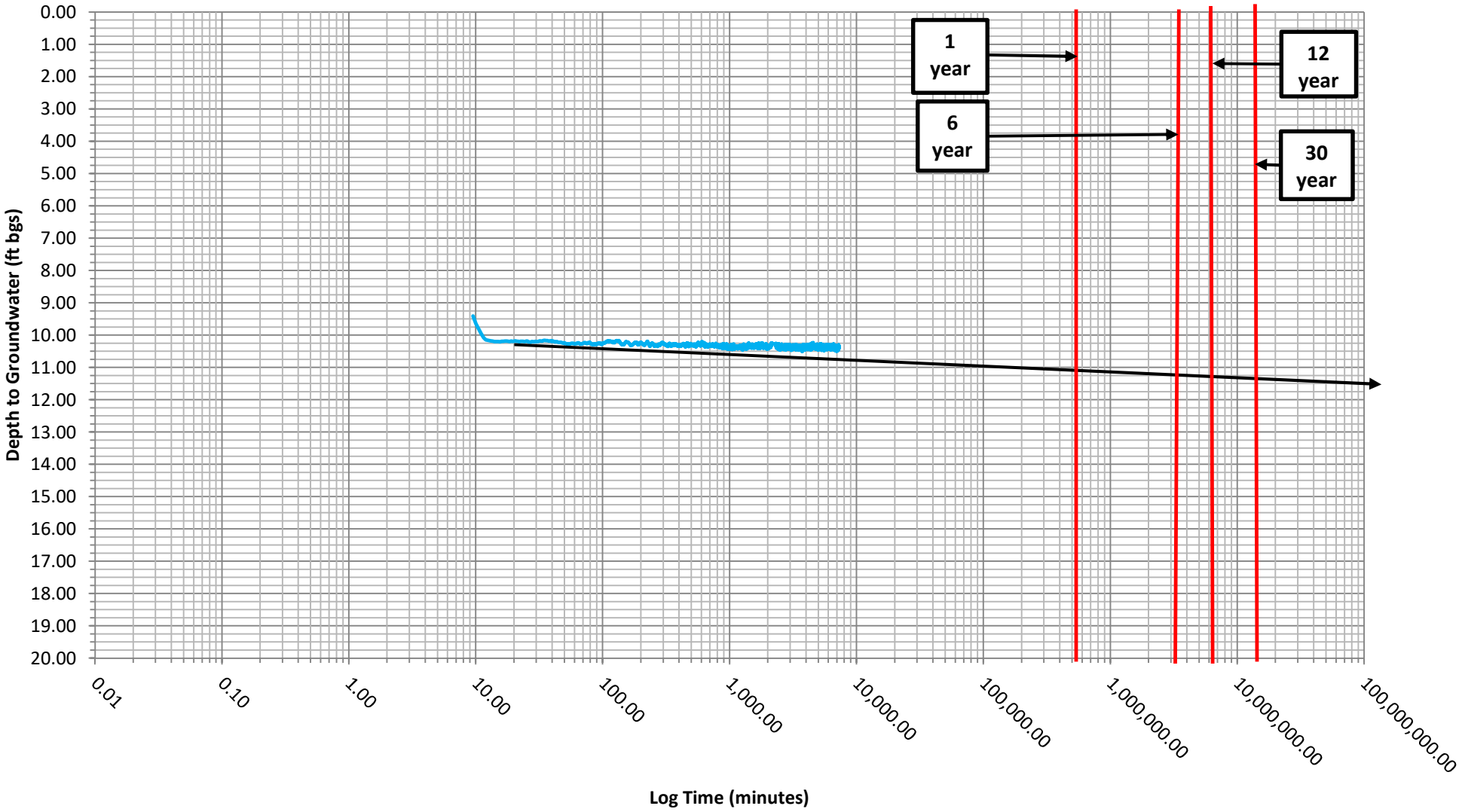
Turkey Run: MW-B Pumping Test

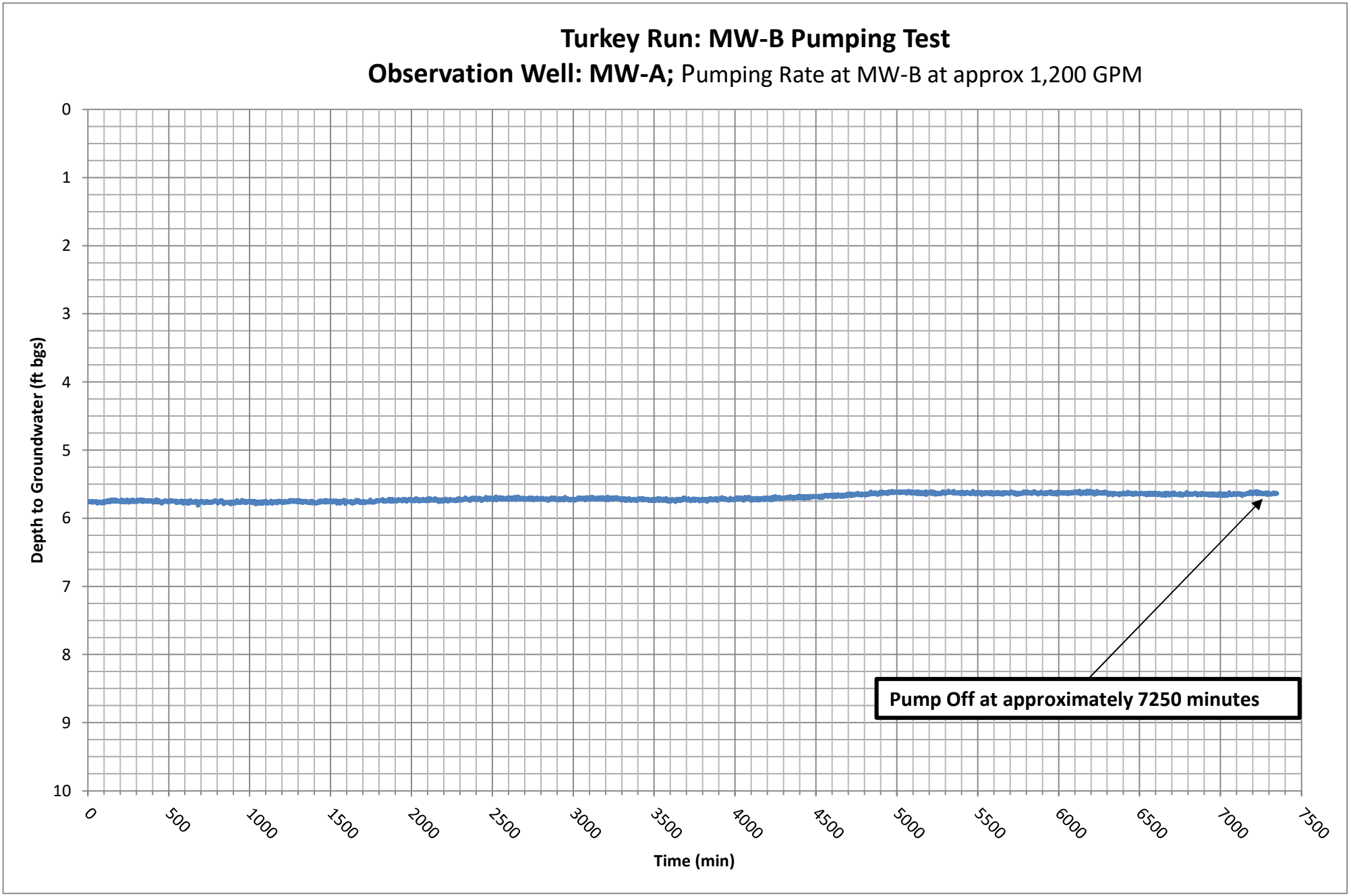
Pumping at Approx 1,200 GPM

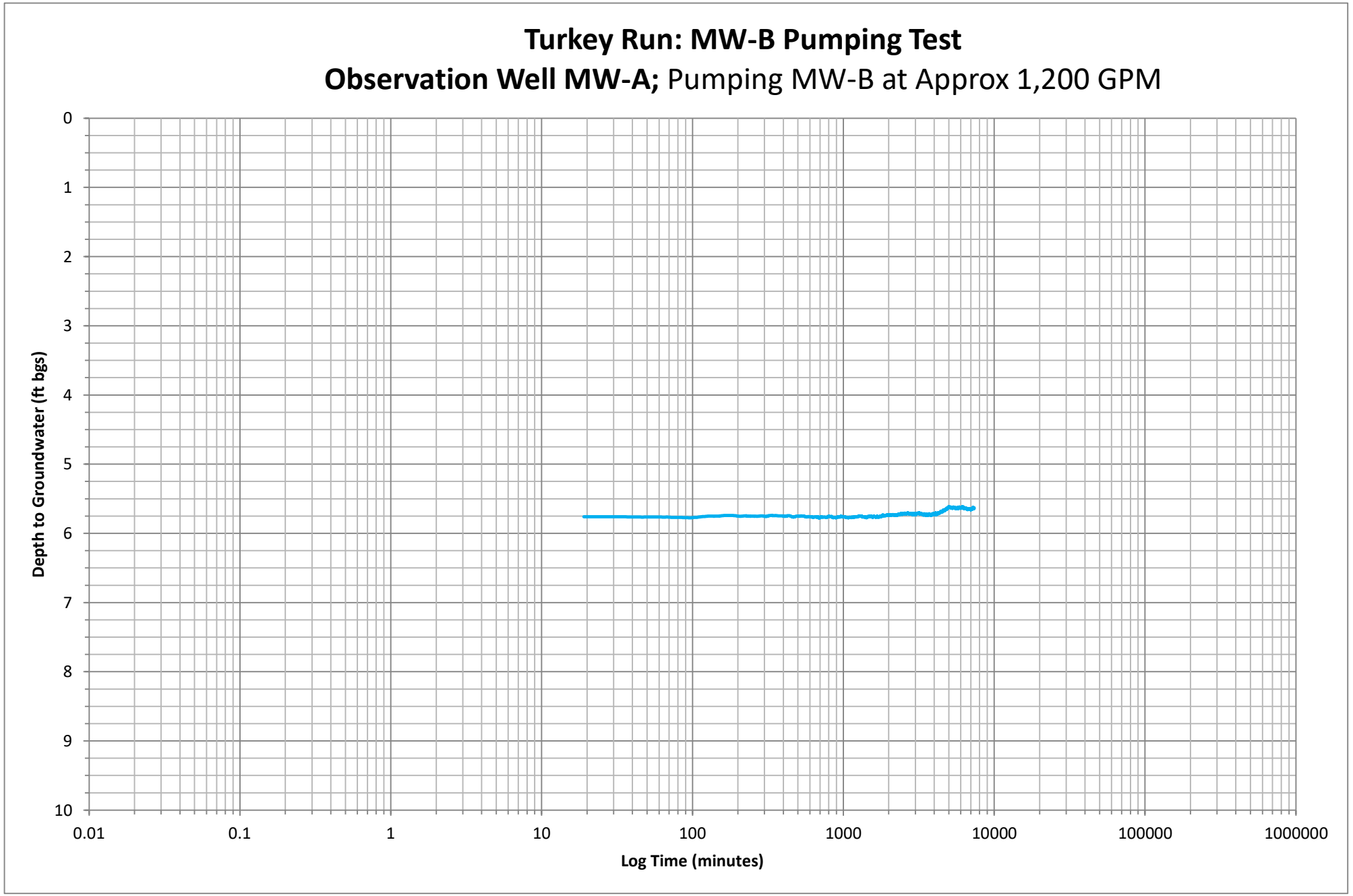


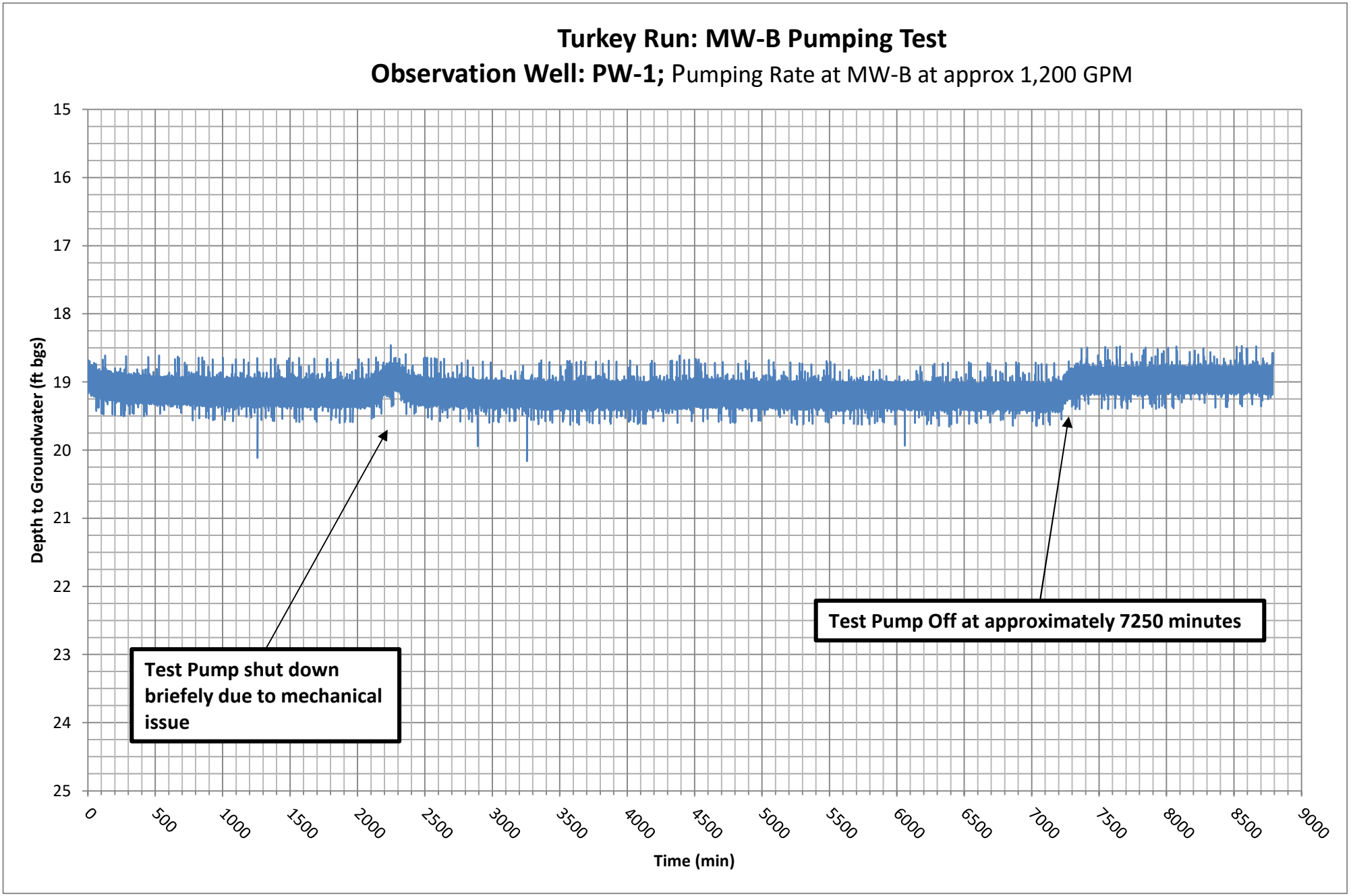

Turkey Run: MW-B Pumping Test
Pumping at Approx 1,200 GPM
Depth to Groundwater (ft bgs)
0.00
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
13.00
14.00
15.00
16.00
17.00
18.00
19.00
20.00
0.01
0.10
1.00
10.00
100.00
1000.00
10000.00
100000.00
1000000.00
Log Time (minutes)

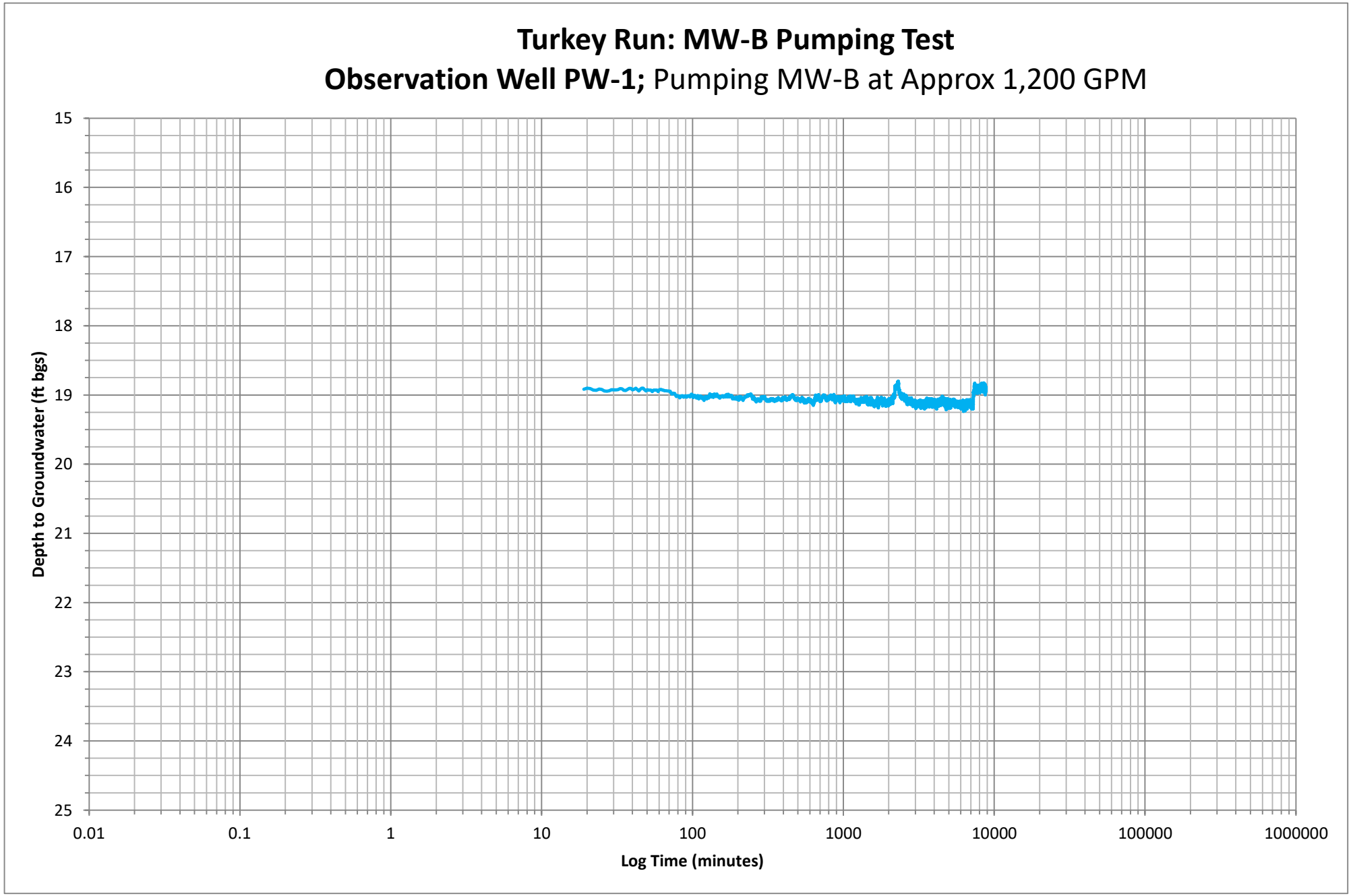
Turkey Run: MW-B Pumping Test
Drawdown Projection; 1, 6, 12, and 30 year
Pumping at Approx 1,200 GPM

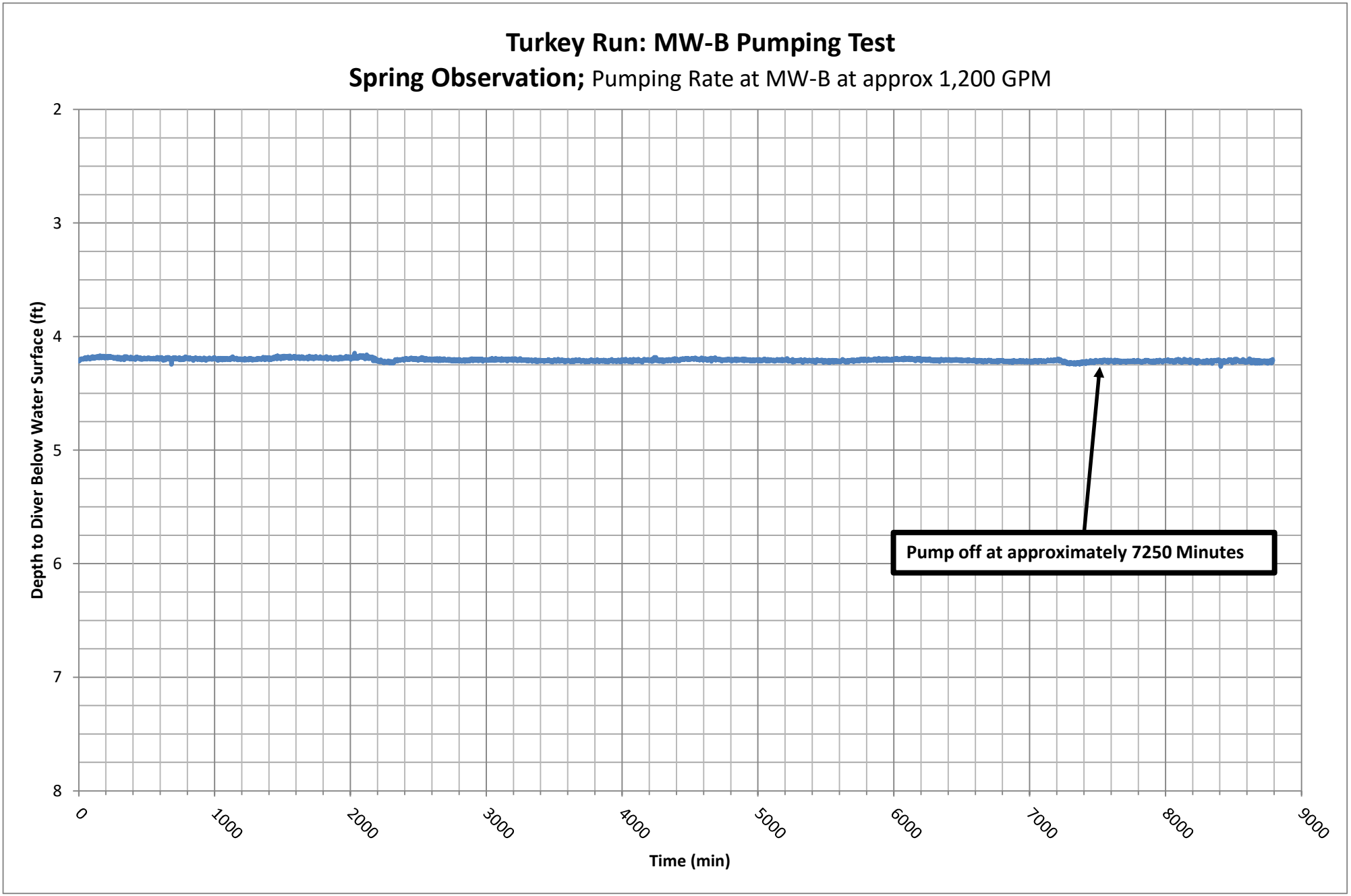


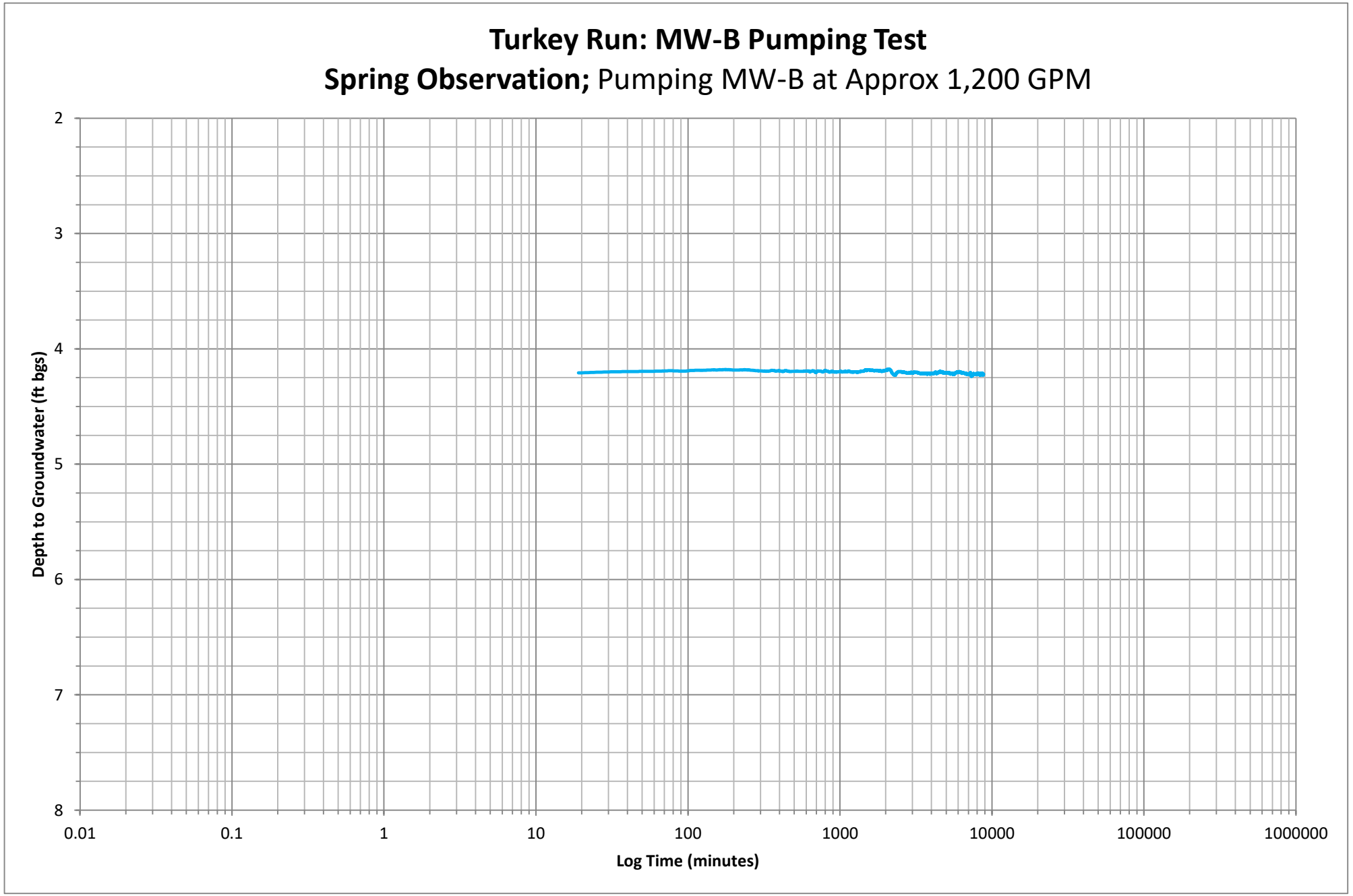

Turkey Run: MW-B Pumping Test
Observation Well: MW-A; Pumping Rate at MW-B at approx 1,200 GPM
Depth to Groundwater (ft bgs)
0
1
2
3
4
5
6
7
8
9
10
Time (min)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
7000
7500
Pump Off at approximately 7250 minutes

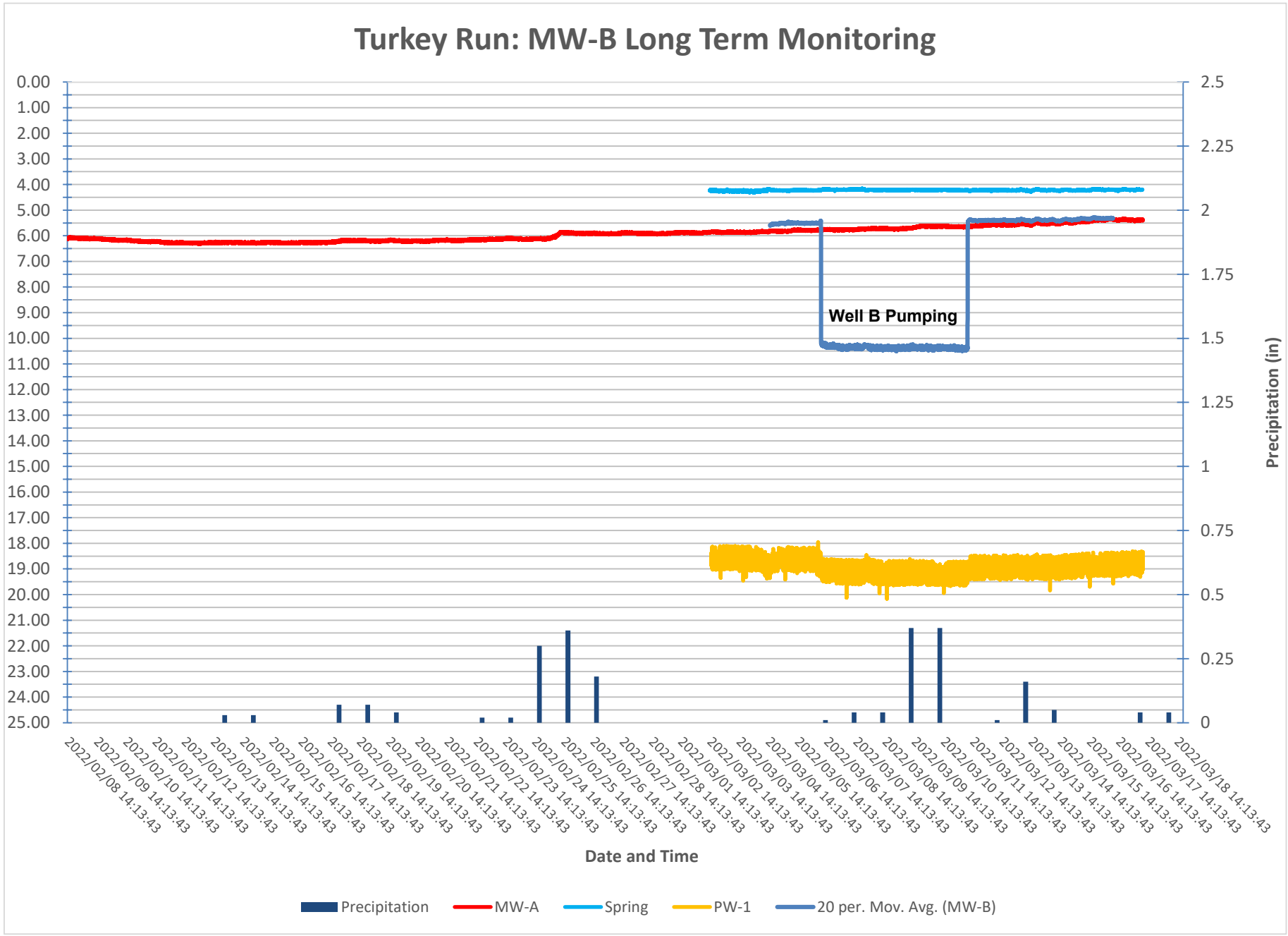

Turkey Run: MW-B Pumping Test
Observation Well MW-A; Pumping MW-B at Approx 1,200 GPM
Depth to Groundwater (ft bgs)
0
1
2
3
4
5
6
7
8
9
10
0.01
0.1
1
10
100
1000
10000
100000
1000000
Log Time (minutes)


Turkey Run: MW-B Pumping Test
Observation Well: PW-1; Pumping Rate at MW-B at approx 1,200 GPM
Depth to Groundwater (ft bgs)
15
16
17
18
19
20
21
22
23
24
25
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
7000
7500
8000
8500
9000
Time (min)
Test Pump shut down briefely due to mechanical issue
Test Pump Off at approximately 7250 minutes


Turkey Run: MW-B Pumping Test
Observation Well PW-1; Pumping MW-B at Approx 1,200 GPM
Depth to Groundwater (ft bgs)
15
16
17
18
19
20
21
22
23
24
25
0.01
0.1
1
10
100
1000
10000
100000
1000000
Log Time (minutes)


Turkey Run: MW-B Pumping Test
Spring Observation; Pumping Rate at MW-B at approx 1,200 GPM
Depth to Diver Below Water Surface (ft)
2
3
4
5
6
7
8
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
Time (min)
Pump off at approximately 7250 Minutes


Turkey Run: MW-B Pumping Test
Spring Observation; Pumping MW-B at Approx 1,200 GPM
Depth to Groundwater (ft bgs)
2
3
4
5
6
7
8
0.01
0.1
1
10
100
1000
10000
100000
1000000
Log Time (minutes)


Turkey Run: MW-B Long Term Monitoring
Depth to Groundwater (ft bgs)
Precipitation (in)
Well B Pumping
Date and Time
Precipitation
MW-A
Spring
PW-1
20 per. Mov. Avg. (MW-B)

Appendix E

Laboratory Analytical Results

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Eaton South Bend
110 S Hill Street
South Bend, IN 46617
Tel: (574)233-4777

Laboratory Job ID: 810-17720-1
Client Project/Site: WV Drinking Water

For:
Triad Engineering, Inc.
1075 D Sherman Avenue
Hagerstown, Maryland 21740

Attn: Nicholas Wolfe

Appendix E

Authorized for release by:
4/21/2022 4:11:19 PM

Joe Mattheis, Project Manager I
(574)233-4777
Joe.Mattheis@et.eurofinsus.com

Table of Contents

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

LCMS

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Dioxin

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Result is less than the sample detection limit.

Biology

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 810-17720-1

Laboratory: Eurofins Eaton South Bend

Narrative

Job Narrative
810-17720-1

Comments
No additional comments.

Receipt
The samples were received on 3/11/2022 9:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.0º C, 0.0º C, 0.0º C and 0.0º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
Method 549.2: The matrix spike (MS) recoveries for preparation batch 810-14934 and analytical batch 810-15152 were outside control limits (70-130) for Diquat (47%). Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. Data impact unlikely.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 515.3: Surrogate recovery for the following sample was outside the lower control limit of 70% at 25%: Spring (810-17720-2). This sample did not contain any target analytes; re-extraction and/or re-analysis was performed with the low surrogate recovery confirming the initial analysis.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Dioxin
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

RAD
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

LCMS
Method 331.0: Due to the high concentration of Perchlorate, the low level matrix spike / matrix spike duplicate (LMS/LMSD) for analytical batch 810-14964 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria. Perchlorate failed low in the LMS and LMSD at 37% and 41% (50-150% limits), due to the inappropriate spike concentration compared to the native concentration present in the parent sample (17720-2). Client results in the parent sample are not affected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method 150.1: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Well B (810-17720-1) and Spring (810-17720-2).

Method SM 2150B: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: Well B (810-17720-1) and Spring (810-17720-2).

Job ID: 810-17720-1 (Continued)

Laboratory: Eurofins Eaton South Bend (Continued)

Method 4500 Cl G: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Well B (810-17720-1) and Spring (810-17720-2).

Method 4500 ClO2 D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Well B (810-17720-1) and Spring (810-17720-2).

Method 353.2: The following samples were analyzed outside of analytical holding time due to the method for these samples wasn't requested until 3/14/22: Well B (810-17720-1) and Spring (810-17720-2).

Method 353.2: The following samples were analyzed outside of analytical holding time due to method wasn't requested for sample until 3/14/22: Well B (810-17720-1) and Spring (810-17720-2).

Method 4500 Cl F Amine: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Well B (810-17720-1) and Spring (810-17720-2).

Method SM 5540C: The following samples were received outside of holding time: Well B (810-17720-5) and Spring (810-17720-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Biology
Method 9223B: The following sample contained Total Coliform and E. coli bacteria at a concentration above the EPA Maximum Contaminant Level (MCL): Well B (810-17720-1).

Method 9223B: The following sample contained Total Coliform and E. coli bacteria at a concentration above the EPA Maximum Contaminant Level (MCL): Spring (810-17720-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Subcontract non-Sister
See attached subcontract report.

Organic Prep
The reference method requires samples to be preserved to a pH of <3.5-4.5>. The following sample was received with insufficient preservation at a pH of <~5.0>: Spring (810-17720-2). The sample(s) was preserved to the appropriate pH in the laboratory. Please let the lab know if it's ok to proceed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Dioxin Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Client Sample ID: Well B — Lab Sample ID: 810-17720-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	15		2.0		mg/L	1		300.0	Total/NA
Sulfate	19		5.0		mg/L	1		300.0	Total/NA
Bromide	23		10		ug/L	1		300.0	Total/NA
Perchlorate	0.70		0.050		ug/L	1		331.0	Total/NA
Sodium	6.7		0.10		mg/L	1		200.7	Total/NA
Magnesium	16		0.10		mg/L	1		200.7	Total/NA
Calcium	110		0.10		mg/L	1		200.7	Total/NA
Barium	35		2.0		ug/L	1		200.8	Total/NA
Chromium	3.9		0.90		ug/L	1		200.8	Total/NA
Nickel	1.4		1.0		ug/L	1		200.8	Total/NA
Zinc	15		5.0		ug/L	1		200.8	Total/NA
Hardness as calcium carbonate	340		0.66		mg/L	1		SM 2340B	Total/NA
Calcium hardness as calcium carbonate	270		0.25		mg/L	1		SM 2340B	Total/NA
Magnesium hardness as calcium carbonate	66		0.41		mg/L	1		SM 2340B	Total/NA
pH	7.3	HF	0.1		SU	1		150.1	Total/NA
Turbidity	0.35		0.10		NTU	1		180.1	Total/NA
Nitrate Nitrite as N	5.5	H	0.10		mg/L	1		353.2	Total/NA
Nitrate as N	5.5		0.10		mg/L	1		Nitrate by calc	Total/NA
Alkalinity, Bicarbonate	280		1.0		mg/L	1		SM 2320B	Total/NA
Alkalinity, Total	280		1.0		mg/L	1		SM 2320B	Total/NA
Specific Conductance	690		2.0		uS/cm	1		SM 2510B	Total/NA
Total Dissolved Solids	380		10		mg/L	1		SM 2540C	Total/NA
Fluoride	0.090		0.050		mg/L	1		SM 4500 F C	Total/NA
Escherichia coli	PRESENT	H			NONE	1		9223B	Total/NA
Coliform, Total	PRESENT	H			NONE	1		9223B	Total/NA
Heterotrophic Plate Count	270		2.0		MPN/mL	1		SimPlate	Total/NA

Client Sample ID: Spring — Lab Sample ID: 810-17720-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	15		2.0		mg/L	1		300.0	Total/NA
Sulfate	19		5.0		mg/L	1		300.0	Total/NA
Bromide	25		10		ug/L	1		300.0	Total/NA
Perchlorate	0.63		0.050		ug/L	1		331.0	Total/NA
Sodium	6.5		0.10		mg/L	1		200.7	Total/NA
Magnesium	16		0.10		mg/L	1		200.7	Total/NA
Iron	0.026		0.020		mg/L	1		200.7	Total/NA
Calcium	110		0.10		mg/L	1		200.7	Total/NA
Barium	35		2.0		ug/L	1		200.8	Total/NA
Chromium	3.5		0.90		ug/L	1		200.8	Total/NA
Copper	1.6		1.0		ug/L	1		200.8	Total/NA
Manganese	3.8		2.0		ug/L	1		200.8	Total/NA
Nickel	1.7		1.0		ug/L	1		200.8	Total/NA
Hardness as calcium carbonate	340		0.66		mg/L	1		SM 2340B	Total/NA
Calcium hardness as calcium carbonate	280		0.25		mg/L	1		SM 2340B	Total/NA
Magnesium hardness as calcium carbonate	66		0.41		mg/L	1		SM 2340B	Total/NA
pH	7.5	HF	0.1		SU	1		150.1	Total/NA
Turbidity	1.7		0.10		NTU	1		180.1	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Client Sample ID: Spring (Continued) — Lab Sample ID: 810-17720-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate Nitrite as N	5.3	H	0.10		mg/L	1		353.2	Total/NA
Nitrate as N	5.3		0.10		mg/L	1		Nitrate by calc	Total/NA
Odor	1.0	H	1.0		T.O.N.	1		SM 2150B	Total/NA
Alkalinity, Bicarbonate	280		1.0		mg/L	1		SM 2320B	Total/NA
Alkalinity, Total	280		1.0		mg/L	1		SM 2320B	Total/NA
Specific Conductance	590		2.0		uS/cm	1		SM 2510B	Total/NA
Total Dissolved Solids	380		10		mg/L	1		SM 2540C	Total/NA
Fluoride	0.090		0.050		mg/L	1		SM 4500 F C	Total/NA
Escherichia coli	ABSENT	H			NONE	1		9223B	Total/NA
Coliform, Total	PRESENT	H			NONE	1		9223B	Total/NA
Heterotrophic Plate Count	150		2.0		MPN/mL	1		SimPlate	Total/NA

Client Sample ID: Well B — Lab Sample ID: 810-17720-5

No Detections.

Client Sample ID: Spring — Lab Sample ID: 810-17720-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Client Sample ID: Well B
Date Collected: 03/10/22 12:10
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-1
Matrix: Drinking Water

Method: 524.2 - Total Trihalomethanes

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trihalomethanes, Total	<0.5000		0.5000		ug/L			03/18/22 10:47	1

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.50		0.50		ug/L			03/16/22 20:15	1
Bromodichloromethane	<0.50		0.50		ug/L			03/18/22 04:49	1
1,1,1-Trichloroethane	<0.50		0.50		ug/L			03/16/22 20:15	1
Bromoform	<0.50		0.50		ug/L			03/18/22 04:49	1
1,1,2,2-Tetrachloroethane	<0.50		0.50		ug/L			03/16/22 20:15	1
Chloroform	<0.50		0.50		ug/L			03/18/22 04:49	1
1,1,2-Trichloroethane	<0.50		0.50		ug/L			03/16/22 20:15	1
Dibromochloromethane	<0.50		0.50		ug/L			03/18/22 04:49	1
1,1-Dichloroethane	<0.50		0.50		ug/L			03/16/22 20:15	1
1,1-Dichloroethene	<0.50		0.50		ug/L			03/16/22 20:15	1
1,1-Dichloropropene	<0.50		0.50		ug/L			03/16/22 20:15	1
1,2,3-Trichlorobenzene	<0.50		0.50		ug/L			03/16/22 20:15	1
1,2,3-Trichloropropane	<0.50		0.50		ug/L			03/16/22 20:15	1
1,2,4-Trichlorobenzene	<0.50		0.50		ug/L			03/16/22 20:15	1
1,2,4-Trimethylbenzene	<0.50		0.50		ug/L			03/16/22 20:15	1
1,2-Dibromo-3-Chloropropane	<0.20		0.20		ug/L			03/16/22 20:15	1
1,2-Dibromoethane (EDB)	<0.20		0.20		ug/L			03/16/22 20:15	1
1,2-Dichlorobenzene	<0.50		0.50		ug/L			03/16/22 20:15	1
1,2-Dichloroethane	<0.50		0.50		ug/L			03/16/22 20:15	1
1,2-Dichloropropane	<0.25		0.25		ug/L			03/16/22 20:15	1
o-Xylene	<0.50		0.50		ug/L			03/16/22 20:15	1
m-Xylene & p-Xylene	<0.50		0.50		ug/L			03/16/22 20:15	1
1,3,5-Trimethylbenzene	<0.50		0.50		ug/L			03/16/22 20:15	1
1,3-Dichlorobenzene	<0.50		0.50		ug/L			03/16/22 20:15	1
1,3-Dichloropropane	<0.50		0.50		ug/L			03/16/22 20:15	1
1,4-Dichlorobenzene	<0.50		0.50		ug/L			03/16/22 20:15	1
2,2-Dichloropropane	<0.50		0.50		ug/L			03/16/22 20:15	1
2-Chlorotoluene	<0.50		0.50		ug/L			03/16/22 20:15	1
4-Chlorotoluene	<0.50		0.50		ug/L			03/16/22 20:15	1
Benzene	<0.50		0.50		ug/L			03/16/22 20:15	1
4-Isopropyltoluene	<0.50		0.50		ug/L			03/16/22 20:15	1
Bromobenzene	<0.50		0.50		ug/L			03/16/22 20:15	1
Bromochloromethane	<0.50		0.50		ug/L			03/16/22 20:15	1
Bromodichloromethane	<0.50		0.50		ug/L			03/16/22 20:15	1
Bromoform	<0.50		0.50		ug/L			03/16/22 20:15	1
Bromomethane	<0.50		0.50		ug/L			03/16/22 20:15	1
Carbon tetrachloride	<0.50		0.50		ug/L			03/16/22 20:15	1
Chloroethane	<0.50		0.50		ug/L			03/16/22 20:15	1
Chlorobenzene	<0.50		0.50		ug/L			03/16/22 20:15	1
Chloromethane	<0.50		0.50		ug/L			03/16/22 20:15	1
Chloroform	<0.50		0.50		ug/L			03/16/22 20:15	1
Dibromomethane	<0.50		0.50		ug/L			03/16/22 20:15	1
Dichlorodifluoromethane	<0.50		0.50		ug/L			03/16/22 20:15	1
Dichloromethane	<0.50		0.50		ug/L			03/16/22 20:15	1
Dibromochloromethane	<0.50		0.50		ug/L			03/16/22 20:15	1
Ethylbenzene	<0.50		0.50		ug/L			03/16/22 20:15	1

Client Sample ID: Well B
Date Collected: 03/10/22 12:10
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-1
Matrix: Drinking Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	<0.25		0.25		ug/L			03/16/22 20:15	1
Isopropylbenzene	<0.25		0.25		ug/L			03/16/22 20:15	1
Naphthalene	<0.50		0.50		ug/L			03/16/22 20:15	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50		ug/L			03/16/22 20:15	1
Styrene	<0.50		0.50		ug/L			03/16/22 20:15	1
Tetrachloroethene	<0.50		0.50		ug/L			03/16/22 20:15	1
Toluene	<0.50		0.50		ug/L			03/16/22 20:15	1
Trichloroethylene	<0.50		0.50		ug/L			03/16/22 20:15	1
Trichlorofluoromethane	<0.50		0.50		ug/L			03/16/22 20:15	1
Vinyl chloride	<0.20		0.20		ug/L			03/16/22 20:15	1
tert-Butylbenzene	<0.50		0.50		ug/L			03/16/22 20:15	1
cis-1,2-Dichloroethylene	<0.50		0.50		ug/L			03/16/22 20:15	1
cis-1,3-Dichloropropylene	<0.50		0.50		ug/L			03/16/22 20:15	1
n-Butylbenzene	<0.50		0.50		ug/L			03/16/22 20:15	1
N-Propylbenzene	<0.50		0.50		ug/L			03/16/22 20:15	1
sec-Butylbenzene	<0.50		0.50		ug/L			03/16/22 20:15	1
trans-1,2-Dichloroethylene	<0.50		0.50		ug/L			03/16/22 20:15	1
trans-1,3-Dichloropropylene	<0.50		0.50		ug/L			03/16/22 20:15	1
Xylenes, Total	<0.50		0.50		ug/L			03/16/22 20:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*03/18/22 04:49*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*03/18/22 04:49*	*1*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*		*03/18/22 04:49*	*1*
1,2-Dichlorobenzene-d4 (Surr)	*83*		*70 - 130*		*03/18/22 04:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*03/16/22 20:15*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*03/16/22 20:15*	*1*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*		*03/16/22 20:15*	*1*
1,2-Dichlorobenzene-d4 (Surr)	*81*		*70 - 130*		*03/16/22 20:15*	*1*

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<0.070		0.070		ug/L		03/21/22 07:41	03/22/22 13:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*85*		*70 - 130*	*03/21/22 07:41*	*03/22/22 13:52*	*1*

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	<0.021		0.021		ug/L		03/17/22 07:44	03/18/22 13:55	1
Di(2-ethylhexyl)adipate	<0.63		0.63		ug/L		03/17/22 07:44	03/18/22 13:55	1
Di (2-ethylhexyl)phthalate	<0.63		0.63		ug/L		03/17/22 07:44	03/18/22 13:55	1
Hexachlorobenzene	<0.10		0.10		ug/L		03/17/22 07:44	03/18/22 13:55	1
Simazine	<0.073		0.073		ug/L		03/17/22 07:44	03/18/22 13:55	1
Alachlor	<0.10		0.10		ug/L		03/17/22 07:44	03/18/22 13:55	1
Atrazine	<0.10		0.10		ug/L		03/17/22 07:44	03/18/22 13:55	1
Benzo[a]pyrene	<0.021		0.021		ug/L		03/17/22 07:44	03/18/22 13:55	1
Endrin	<0.010		0.010		ug/L		03/17/22 07:44	03/18/22 13:55	1
Methoxychlor	<0.10		0.10		ug/L		03/17/22 07:44	03/18/22 13:55	1
Heptachlor	<0.042		0.042		ug/L		03/17/22 07:44	03/18/22 13:55	1

Client Sample ID: Well B
Date Collected: 03/10/22 12:10
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-1
Matrix: Drinking Water

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	<0.10		0.10		ug/L		03/17/22 07:44	03/18/22 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*100*		*70 - 130*	*03/17/22 07:44*	*03/18/22 13:55*	*1*
Perylene-d12	*89*		*70 - 130*	*03/17/22 07:44*	*03/18/22 13:55*	*1*
Triphenylphosphate	*100*		*70 - 130*	*03/17/22 07:44*	*03/18/22 13:55*	*1*

Method: 548.1 - Endothall (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endothall	<5.0		5.0		ug/L		03/15/22 06:53	03/17/22 04:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenoxyacetic acid (Surr)	*110*		*70 - 130*	*03/15/22 06:53*	*03/17/22 04:38*	*1*

Method: 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	<0.0099		0.0099		ug/L		03/15/22 10:15	03/16/22 05:04	1
1,2-Dibromo-3-Chloropropane	<0.0099		0.0099		ug/L		03/15/22 10:15	03/16/22 05:04	1

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.080		0.080		ug/L		03/16/22 09:55	03/16/22 22:47	1
PCB-1221	<0.19		0.19		ug/L		03/16/22 09:55	03/16/22 22:47	1
PCB-1232	<0.23		0.23		ug/L		03/16/22 09:55	03/16/22 22:47	1
PCB-1242	<0.26		0.26		ug/L		03/16/22 09:55	03/16/22 22:47	1
PCB-1248	<0.10		0.10		ug/L		03/16/22 09:55	03/16/22 22:47	1
PCB-1254	<0.10		0.10		ug/L		03/16/22 09:55	03/16/22 22:47	1
PCB-1260	<0.20		0.20		ug/L		03/16/22 09:55	03/16/22 22:47	1
Chlordane (technical)	<0.10		0.10		ug/L		03/16/22 09:55	03/16/22 22:47	1
Toxaphene	<1.0		1.0		ug/L		03/16/22 09:55	03/16/22 22:47	1
Total PCBs as DCB (Qualitative)	<0.50		0.50		ug/L		03/16/22 09:55	03/16/22 22:47	1

Method: 515.3 - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-TP (Silvex)	<0.10		0.10		ug/L		03/22/22 07:29	03/22/22 22:48	1
Dalapon	<1.0		1.0		ug/L		03/22/22 07:29	03/22/22 22:48	1
Dinoseb	<0.10		0.10		ug/L		03/22/22 07:29	03/22/22 22:48	1
Pentachlorophenol	<0.040		0.040		ug/L		03/22/22 07:29	03/22/22 22:48	1
Picloram	<0.10		0.10		ug/L		03/22/22 07:29	03/22/22 22:48	1
2,4-D	<0.10		0.10		ug/L		03/22/22 07:29	03/22/22 22:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*93*		*70 - 130*	*03/22/22 07:29*	*03/22/22 22:48*	*1*

Method: 551.1 - Chlorinated Disinfection Byproducts and Solvents (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	<1.0		1.0		ug/L		03/23/22 10:03	03/24/22 02:28	1
Dichloroacetonitrile	<0.50		0.50		ug/L		03/23/22 10:03	03/24/22 02:28	1
Dibromoacetonitrile	<0.50		0.50		ug/L		03/23/22 10:03	03/24/22 02:28	1
1,1-Dichloro-2-propanone	<0.50		0.50		ug/L		03/23/22 10:03	03/24/22 02:28	1
Trichloroacetonitrile	<0.50		0.50		ug/L		03/23/22 10:03	03/24/22 02:28	1

Client Sample ID: Well B
Date Collected: 03/10/22 12:10
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-1
Matrix: Drinking Water

Method: 551.1 - Chlorinated Disinfection Byproducts and Solvents (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<1.0		1.0		ug/L		03/23/22 10:03	03/24/22 02:28	1
Bromoform	<1.0		1.0		ug/L		03/23/22 10:03	03/24/22 02:28	1
Bromodichloromethane	<1.0		1.0		ug/L		03/23/22 10:03	03/24/22 02:28	1
Chloropicrin	<0.50		0.50		ug/L		03/23/22 10:03	03/24/22 02:28	1
Bromochloroacetonitrile	<0.50		0.50		ug/L		03/23/22 10:03	03/24/22 02:28	1
1,1,1-Trichloro-2-propanone	<0.50		0.50		ug/L		03/23/22 10:03	03/24/22 02:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dibromopropane	*100*			*03/23/22 10:03*	*03/24/22 02:28*	*1*

Method: 552.2 THAA - Total Haloacetic Acids (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Haloacetic Acids 5	<2.000		2.000		ug/L			03/21/22 10:53	1

Method: 552.2 - Haloacetic Acids (HAAs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromoacetic acid	<1.0		1.0		ug/L		03/17/22 08:11	03/18/22 21:43	1
Dichloroacetic acid	<1.0		1.0		ug/L		03/17/22 08:11	03/18/22 21:43	1
Monobromoacetic acid	<1.0		1.0		ug/L		03/17/22 08:11	03/18/22 21:43	1
Monochloroacetic acid	<2.0		2.0		ug/L		03/17/22 08:11	03/18/22 21:43	1
Trichloroacetic acid	<1.0		1.0		ug/L		03/17/22 08:11	03/18/22 21:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Bromopropionic acid (Surr)	*95*		*70 - 130*	*03/17/22 08:11*	*03/18/22 21:43*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15**		2.0		mg/L			03/15/22 19:02	1
Chlorite	<10		10		ug/L			03/15/22 22:10	1
Chlorate	<10		10		ug/L			03/15/22 22:10	1
Sulfate	**19**		5.0		mg/L			03/15/22 19:02	1
Bromide	**23**		10		ug/L			03/15/22 22:10	1

Method: 317 - Bromate, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.0		1.0		ug/L			03/17/22 00:02	1

Method: 531.2 - Carbamate Pesticides (HPLC) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldicarb	<0.50		0.50		ug/L			03/19/22 05:50	1
Aldicarb sulfone	<0.70		0.70		ug/L			03/19/22 05:50	1
Aldicarb sulfoxide	<0.50		0.50		ug/L			03/19/22 05:50	1
Carbofuran	<0.90		0.90		ug/L			03/19/22 05:50	1
Oxamyl	<1.0		1.0		ug/L			03/19/22 05:50	1

Method: 547 - Glyphosate (DAI HPLC) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Glyphosate	<6.0		6.0		ug/L			03/16/22 00:26	1

Method: 549.2 - Diquat and Paraquat (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diquat	<0.40	F1	0.40		ug/L		03/16/22 06:59	03/18/22 17:28	1

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Client Sample ID: Well B

Date Collected: 03/10/22 12:10
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-1

Matrix: Drinking Water

Method: 331.0 - Perchlorate (LC/MS/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	**0.70**		0.050		ug/L			03/17/22 18:42	1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluoropentanoic acid (PFPeA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluorohexanoic acid (PFHxA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluoroheptanoic acid (PFHpA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluorooctanoic acid (PFOA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluorononanoic acid (PFNA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluorodecanoic acid (PFDA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluoroundecanoic acid (PFUnA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluorododecanoic acid (PFDoA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluorobutanesulfonic acid (PFBS)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluoropentanesulfonic acid (PFPeS)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluorohexanesulfonic acid (PFHxS)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluoroheptanesulfonic acid (PFHpS)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluorooctanesulfonic acid (PFOS)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.9		1.9		ng/L		03/16/22 06:28	03/17/22 02:24	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*91*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*
13C5 PFPeA	*85*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*
13C5 PFHxA	*90*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*
13C4 PFHpA	*89*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*
13C8 PFOA	*89*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*
13C9 PFNA	*105*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*
13C6 PFDA	*98*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*
13C7 PFUnA	*85*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*
13C2 PFDoA	*78*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*
13C3 HFPO-DA	*87*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*

Client Sample ID: Well B
Date Collected: 03/10/22 12:10
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-1
Matrix: Drinking Water

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 PFBS	*86*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*
13C8 PFOS	*94*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*
13C2-4:2-FTS	*90*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*
13C2-6:2-FTS	*96*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*
13C2-8:2-FTS	*98*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*
13C3 PFHxS	*89*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:24*	*1*

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
Perfluoroundecanoic acid (PFUnA)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
Perfluorohexanoic acid (PFHxA)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
Perfluorododecanoic acid (PFDoA)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
Perfluorooctanoic acid (PFOA)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
Perfluorodecanoic acid (PFDA)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
Perfluorohexanesulfonic acid (PFHxS)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
Perfluorobutanesulfonic acid (PFBS)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
Perfluoroheptanoic acid (PFHpA)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
Perfluorononanoic acid (PFNA)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
Perfluorotetradecanoic acid (PFTeDA)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
Perfluorotridecanoic acid (PFTrDA)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.9		1.9		ng/L		03/16/22 07:55	03/17/22 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*98*		*70 - 130*	*03/16/22 07:55*	*03/17/22 19:20*	*1*
13C2 PFDA	*92*		*70 - 130*	*03/16/22 07:55*	*03/17/22 19:20*	*1*
13C3 HFPO-DA	*97*		*70 - 130*	*03/16/22 07:55*	*03/17/22 19:20*	*1*
d5-NEtFOSAA	*86*		*70 - 130*	*03/16/22 07:55*	*03/17/22 19:20*	*1*

Method: 1613B - Tetra Chlorinated Dioxin in Drinking Water

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<4.1		4.1		pg/L		03/21/22 15:00	03/23/22 00:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*99*		*25 - 164*	*03/21/22 15:00*	*03/23/22 00:40*	*1*

Method: 200.7 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	**6.7**		0.10		mg/L			03/18/22 14:31	1
Magnesium	**16**		0.10		mg/L			03/18/22 14:31	1
Iron	<0.020		0.020		mg/L			03/18/22 14:31	1
Calcium	**110**		0.10		mg/L			03/18/22 14:31	1

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Client Sample ID: Well B

Date Collected: 03/10/22 12:10
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-1

Matrix: Drinking Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0		ug/L			03/17/22 15:39	1
Arsenic	<1.0		1.0		ug/L			03/17/22 15:39	1
Barium	**35**		2.0		ug/L			03/17/22 15:39	1
Beryllium	<0.30		0.30		ug/L			03/17/22 15:39	1
Cadmium	<0.50		0.50		ug/L			03/17/22 15:39	1
Chromium	**3.9**		0.90		ug/L			03/17/22 15:39	1
Copper	<1.0		1.0		ug/L			03/17/22 15:39	1
Lead	<0.50		0.50		ug/L			03/17/22 15:39	1
Manganese	<2.0		2.0		ug/L			03/17/22 15:39	1
Nickel	**1.4**		1.0		ug/L			03/17/22 15:39	1
Selenium	<2.0		2.0		ug/L			03/17/22 15:39	1
Silver	<0.50		0.50		ug/L			03/17/22 15:39	1
Thallium	<0.30		0.30		ug/L			03/17/22 15:39	1
Zinc	**15**		5.0		ug/L			03/17/22 15:39	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.10		0.10		ug/L		03/18/22 11:54	03/18/22 16:02	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**340**		0.66		mg/L			03/20/22 17:00	1
Calcium hardness as calcium carbonate	**270**		0.25		mg/L			03/20/22 17:00	1
Magnesium hardness as calcium carbonate	**66**		0.41		mg/L			03/20/22 17:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0050		0.0050		mg/L		03/18/22 06:45	03/18/22 11:11	1
Nitrite as N	<0.010	H	0.010		mg/L			03/15/22 10:12	1
Nitrate Nitrite as N	**5.5**	**H**	0.10		mg/L			03/15/22 14:22	1
Free Chlorine	<0.50	HF	0.50		mg/L			03/11/22 18:17	1
Nitrate as N	**5.5**		0.10		mg/L			03/18/22 11:24	1
Color, Apparent	<5.0		5.0		Color Units			03/11/22 15:23	1
Specific Conductance	**690**		2.0		uS/cm			03/16/22 19:50	1
Fluoride	**0.090**		0.050		mg/L			03/18/22 08:49	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.3**	**HF**	0.1		SU			03/11/22 14:27	1
Turbidity	**0.35**		0.10		NTU			03/11/22 16:05	1
Monochloramine	<0.10	HF	0.10		mg/L			03/11/22 16:31	1
Dichloramine	<0.10	HF	0.10		mg/L			03/11/22 16:31	1
Nitrogen trichloride	<0.20	HF	0.20		mg/L			03/11/22 16:31	1
Chloramines, Total	<0.20	HF	0.20		mg/L			03/11/22 16:31	1
Chlorine dioxide, Residual	<0.24	HF	0.24		mg/L			03/10/22 12:10	1
Odor	<1.0	H	1.0		T.O.N.			03/11/22 14:58	1
Alkalinity, Bicarbonate	**280**		1.0		mg/L			03/18/22 19:49	1
Alkalinity, Total	**280**		1.0		mg/L			03/18/22 19:49	1
Total Dissolved Solids	**380**		10		mg/L			03/17/22 10:25	1
Total Suspended Solids	<10		10		mg/L			03/16/22 15:46	1

Client Sample ID: Well B

Date Collected: 03/10/22 12:10
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-1
Matrix: Drinking Water

Method: 7110B - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	2.93				3.00	1.73	pCi/L	03/18/22 10:21	04/08/22 08:36	1
Gross Beta	7.27				4.00	2.10	pCi/L	03/18/22 10:21	04/08/22 08:36	1

Method: 7500 Ra D - Radium 226 Radium 228 Combined

Analyte	Result	Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.870				1.00	0.670	pCi/L		04/21/22 16:02	1

Method: SM7500 Ra B - Radium-226

Analyte	Result	Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Ra-226	-0.0100	U *			1.00	0.110	pCi/L	03/18/22 07:56	03/29/22 09:47	1

Method: SM7500 Ra D - Radium-228

Analyte	Result	Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Ra-228	0.870				1.00	0.670	pCi/L	03/18/22 07:52	04/14/22 11:06	1

Method: SM7500_Rn_B - Radon

Analyte	Result	Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radon 222	75.3				12.0	9.80	pCi/L	03/11/22 12:43	03/12/22 05:29	1

Method: 9223B - Coliforms, Total, and E.Coli (Presence/Absence)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	PRESENT	H			NONE			03/14/22 15:26	1
Coliform, Total	PRESENT	H			NONE			03/14/22 15:26	1

Method: SimPlate - Heterotrophic Plate Count (HPC)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heterotrophic Plate Count	270		2.0		MPN/mL			03/11/22 11:44	1

Client Sample ID: Spring

Date Collected: 03/10/22 14:00
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-2
Matrix: Drinking Water

Method: 524.2 - Total Trihalomethanes

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trihalomethanes, Total	<0.5000		0.5000		ug/L			03/18/22 10:47	1

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.50		0.50		ug/L			03/16/22 19:52	1
Bromodichloromethane	<0.50		0.50		ug/L			03/18/22 05:13	1
1,1,1-Trichloroethane	<0.50		0.50		ug/L			03/16/22 19:52	1

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Client Sample ID: Spring
Date Collected: 03/10/22 14:00
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-2
Matrix: Drinking Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	<0.50		0.50		ug/L			03/18/22 05:13	1
1,1,2,2-Tetrachloroethane	<0.50		0.50		ug/L			03/16/22 19:52	1
Chloroform	<0.50		0.50		ug/L			03/18/22 05:13	1
1,1,2-Trichloroethane	<0.50		0.50		ug/L			03/16/22 19:52	1
Dibromochloromethane	<0.50		0.50		ug/L			03/18/22 05:13	1
1,1-Dichloroethane	<0.50		0.50		ug/L			03/16/22 19:52	1
1,1-Dichloroethene	<0.50		0.50		ug/L			03/16/22 19:52	1
1,1-Dichloropropene	<0.50		0.50		ug/L			03/16/22 19:52	1
1,2,3-Trichlorobenzene	<0.50		0.50		ug/L			03/16/22 19:52	1
1,2,3-Trichloropropane	<0.50		0.50		ug/L			03/16/22 19:52	1
1,2,4-Trichlorobenzene	<0.50		0.50		ug/L			03/16/22 19:52	1
1,2,4-Trimethylbenzene	<0.50		0.50		ug/L			03/16/22 19:52	1
1,2-Dibromo-3-Chloropropane	<0.20		0.20		ug/L			03/16/22 19:52	1
1,2-Dibromoethane (EDB)	<0.20		0.20		ug/L			03/16/22 19:52	1
1,2-Dichlorobenzene	<0.50		0.50		ug/L			03/16/22 19:52	1
1,2-Dichloroethane	<0.50		0.50		ug/L			03/16/22 19:52	1
1,2-Dichloropropane	<0.25		0.25		ug/L			03/16/22 19:52	1
o-Xylene	<0.50		0.50		ug/L			03/16/22 19:52	1
m-Xylene & p-Xylene	<0.50		0.50		ug/L			03/16/22 19:52	1
1,3,5-Trimethylbenzene	<0.50		0.50		ug/L			03/16/22 19:52	1
1,3-Dichlorobenzene	<0.50		0.50		ug/L			03/16/22 19:52	1
1,3-Dichloropropane	<0.50		0.50		ug/L			03/16/22 19:52	1
1,4-Dichlorobenzene	<0.50		0.50		ug/L			03/16/22 19:52	1
2,2-Dichloropropane	<0.50		0.50		ug/L			03/16/22 19:52	1
2-Chlorotoluene	<0.50		0.50		ug/L			03/16/22 19:52	1
4-Chlorotoluene	<0.50		0.50		ug/L			03/16/22 19:52	1
Benzene	<0.50		0.50		ug/L			03/16/22 19:52	1
4-Isopropyltoluene	<0.50		0.50		ug/L			03/16/22 19:52	1
Bromobenzene	<0.50		0.50		ug/L			03/16/22 19:52	1
Bromochloromethane	<0.50		0.50		ug/L			03/16/22 19:52	1
Bromodichloromethane	<0.50		0.50		ug/L			03/16/22 19:52	1
Bromoform	<0.50		0.50		ug/L			03/16/22 19:52	1
Bromomethane	<0.50		0.50		ug/L			03/16/22 19:52	1
Carbon tetrachloride	<0.50		0.50		ug/L			03/16/22 19:52	1
Chloroethane	<0.50		0.50		ug/L			03/16/22 19:52	1
Chlorobenzene	<0.50		0.50		ug/L			03/16/22 19:52	1
Chloromethane	<0.50		0.50		ug/L			03/16/22 19:52	1
Chloroform	<0.50		0.50		ug/L			03/16/22 19:52	1
Dibromomethane	<0.50		0.50		ug/L			03/16/22 19:52	1
Dichlorodifluoromethane	<0.50		0.50		ug/L			03/16/22 19:52	1
Dichloromethane	<0.50		0.50		ug/L			03/16/22 19:52	1
Dibromochloromethane	<0.50		0.50		ug/L			03/16/22 19:52	1
Ethylbenzene	<0.50		0.50		ug/L			03/16/22 19:52	1
Hexachlorobutadiene	<0.25		0.25		ug/L			03/16/22 19:52	1
Isopropylbenzene	<0.25		0.25		ug/L			03/16/22 19:52	1
Naphthalene	<0.50		0.50		ug/L			03/16/22 19:52	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50		ug/L			03/16/22 19:52	1
Styrene	<0.50		0.50		ug/L			03/16/22 19:52	1
Tetrachloroethene	<0.50		0.50		ug/L			03/16/22 19:52	1

Client Sample ID: Spring
Date Collected: 03/10/22 14:00
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-2
Matrix: Drinking Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.50		0.50		ug/L			03/16/22 19:52	1
Trichloroethylene	<0.50		0.50		ug/L			03/16/22 19:52	1
Trichlorofluoromethane	<0.50		0.50		ug/L			03/16/22 19:52	1
Vinyl chloride	<0.20		0.20		ug/L			03/16/22 19:52	1
tert-Butylbenzene	<0.50		0.50		ug/L			03/16/22 19:52	1
cis-1,2-Dichloroethylene	<0.50		0.50		ug/L			03/16/22 19:52	1
cis-1,3-Dichloropropylene	<0.50		0.50		ug/L			03/16/22 19:52	1
n-Butylbenzene	<0.50		0.50		ug/L			03/16/22 19:52	1
N-Propylbenzene	<0.50		0.50		ug/L			03/16/22 19:52	1
sec-Butylbenzene	<0.50		0.50		ug/L			03/16/22 19:52	1
trans-1,2-Dichloroethylene	<0.50		0.50		ug/L			03/16/22 19:52	1
trans-1,3-Dichloropropylene	<0.50		0.50		ug/L			03/16/22 19:52	1
Xylenes, Total	<0.50		0.50		ug/L			03/16/22 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*03/18/22 05:13*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*03/18/22 05:13*	*1*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*		*03/18/22 05:13*	*1*
1,2-Dichlorobenzene-d4 (Surr)	*81*		*70 - 130*		*03/18/22 05:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*03/16/22 19:52*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*03/16/22 19:52*	*1*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*		*03/16/22 19:52*	*1*
1,2-Dichlorobenzene-d4 (Surr)	*87*		*70 - 130*		*03/16/22 19:52*	*1*

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<0.070		0.070		ug/L		03/21/22 07:41	03/22/22 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*82*		*70 - 130*	*03/21/22 07:41*	*03/22/22 14:16*	*1*

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	<0.020		0.020		ug/L		03/18/22 07:44	03/21/22 21:50	1
Di(2-ethylhexyl)adipate	<0.59		0.59		ug/L		03/18/22 07:44	03/21/22 21:50	1
Di (2-ethylhexyl)phthalate	<0.59		0.59		ug/L		03/18/22 07:44	03/21/22 21:50	1
Hexachlorobenzene	<0.098		0.098		ug/L		03/18/22 07:44	03/21/22 21:50	1
Simazine	<0.068		0.068		ug/L		03/18/22 07:44	03/21/22 21:50	1
Alachlor	<0.098		0.098		ug/L		03/18/22 07:44	03/21/22 21:50	1
Atrazine	<0.098		0.098		ug/L		03/18/22 07:44	03/21/22 21:50	1
Benzo[a]pyrene	<0.020		0.020		ug/L		03/18/22 07:44	03/21/22 21:50	1
Endrin	<0.0098		0.0098		ug/L		03/18/22 07:44	03/21/22 21:50	1
Methoxychlor	<0.098		0.098		ug/L		03/18/22 07:44	03/21/22 21:50	1
Heptachlor	<0.039		0.039		ug/L		03/18/22 07:44	03/21/22 21:50	1
Hexachlorocyclopentadiene	<0.098		0.098		ug/L		03/18/22 07:44	03/21/22 21:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*101*		*70 - 130*	*03/18/22 07:44*	*03/21/22 21:50*	*1*
Perylene-d12	*93*		*70 - 130*	*03/18/22 07:44*	*03/21/22 21:50*	*1*
Triphenylphosphate	*106*		*70 - 130*	*03/18/22 07:44*	*03/21/22 21:50*	*1*

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Client Sample ID: Spring
Date Collected: 03/10/22 14:00
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-2
Matrix: Drinking Water

Method: 548.1 - Endothall (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endothall	<5.0		5.0		ug/L		03/15/22 06:53	03/17/22 04:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenoxyacetic acid (Surr)	*104*		*70 - 130*	*03/15/22 06:53*	*03/17/22 04:53*	*1*

Method: 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	<0.010		0.010		ug/L		03/15/22 10:15	03/16/22 05:30	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010		ug/L		03/15/22 10:15	03/16/22 05:30	1

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.080		0.080		ug/L		03/16/22 09:55	03/16/22 23:14	1
PCB-1221	<0.19		0.19		ug/L		03/16/22 09:55	03/16/22 23:14	1
PCB-1232	<0.23		0.23		ug/L		03/16/22 09:55	03/16/22 23:14	1
PCB-1242	<0.26		0.26		ug/L		03/16/22 09:55	03/16/22 23:14	1
PCB-1248	<0.10		0.10		ug/L		03/16/22 09:55	03/16/22 23:14	1
PCB-1254	<0.10		0.10		ug/L		03/16/22 09:55	03/16/22 23:14	1
PCB-1260	<0.20		0.20		ug/L		03/16/22 09:55	03/16/22 23:14	1
Chlordane (technical)	<0.10		0.10		ug/L		03/16/22 09:55	03/16/22 23:14	1
Toxaphene	<1.0		1.0		ug/L		03/16/22 09:55	03/16/22 23:14	1
Total PCBs as DCB (Qualitative)	<0.50		0.50		ug/L		03/16/22 09:55	03/16/22 23:14	1

Method: 515.3 - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-TP (Silvex)	<0.10		0.10		ug/L		03/24/22 08:28	03/25/22 13:21	1
Dalapon	<1.0		1.0		ug/L		03/24/22 08:28	03/25/22 13:21	1
Dinoseb	<0.10		0.10		ug/L		03/24/22 08:28	03/25/22 13:21	1
Pentachlorophenol	<0.040		0.040		ug/L		03/24/22 08:28	03/25/22 13:21	1
Picloram	<0.10		0.10		ug/L		03/24/22 08:28	03/25/22 13:21	1
2,4-D	<0.10		0.10		ug/L		03/24/22 08:28	03/25/22 13:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*25*	*S1-*	*70 - 130*	*03/24/22 08:28*	*03/25/22 13:21*	*1*

Method: 551.1 - Chlorinated Disinfection Byproducts and Solvents (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	<1.1		1.1		ug/L		03/23/22 10:03	03/24/22 03:06	1
Dichloroacetonitrile	<0.53		0.53		ug/L		03/23/22 10:03	03/24/22 03:06	1
Dibromoacetonitrile	<0.53		0.53		ug/L		03/23/22 10:03	03/24/22 03:06	1
1,1-Dichloro-2-propanone	<0.53		0.53		ug/L		03/23/22 10:03	03/24/22 03:06	1
Trichloroacetonitrile	<0.53		0.53		ug/L		03/23/22 10:03	03/24/22 03:06	1
Chloroform	<1.1		1.1		ug/L		03/23/22 10:03	03/24/22 03:06	1
Bromoform	<1.1		1.1		ug/L		03/23/22 10:03	03/24/22 03:06	1
Bromodichloromethane	<1.1		1.1		ug/L		03/23/22 10:03	03/24/22 03:06	1
Chloropicrin	<0.53		0.53		ug/L		03/23/22 10:03	03/24/22 03:06	1
Bromochloroacetonitrile	<0.53		0.53		ug/L		03/23/22 10:03	03/24/22 03:06	1
1,1,1-Trichloro-2-propanone	<0.53		0.53		ug/L		03/23/22 10:03	03/24/22 03:06	1

Client Sample ID: Spring
Date Collected: 03/10/22 14:00
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Lab Sample ID: 810-17720-2
Matrix: Drinking Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dibromopropane	*103*			*03/23/22 10:03*	*03/24/22 03:06*	*1*

Method: 552.2 THAA - Total Haloacetic Acids (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Haloacetic Acids 5	<2.000		2.000		ug/L			03/21/22 10:53	1

Method: 552.2 - Haloacetic Acids (HAAs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromoacetic acid	<1.0		1.0		ug/L		03/17/22 08:11	03/18/22 22:19	1
Dichloroacetic acid	<1.0		1.0		ug/L		03/17/22 08:11	03/18/22 22:19	1
Monobromoacetic acid	<1.0		1.0		ug/L		03/17/22 08:11	03/18/22 22:19	1
Monochloroacetic acid	<2.0		2.0		ug/L		03/17/22 08:11	03/18/22 22:19	1
Trichloroacetic acid	<1.0		1.0		ug/L		03/17/22 08:11	03/18/22 22:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Bromopropionic acid (Surr)	*94*		*70 - 130*	*03/17/22 08:11*	*03/18/22 22:19*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15**		2.0		mg/L			03/15/22 20:03	1
Chlorite	<10		10		ug/L			03/15/22 22:41	1
Chlorate	<10		10		ug/L			03/15/22 22:41	1
Sulfate	**19**		5.0		mg/L			03/15/22 20:03	1
Bromide	**25**		10		ug/L			03/15/22 22:41	1

Method: 317 - Bromate, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.0		1.0		ug/L			03/17/22 00:30	1

Method: 531.2 - Carbamate Pesticides (HPLC) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldicarb	<0.50		0.50		ug/L			03/19/22 06:21	1
Aldicarb sulfone	<0.70		0.70		ug/L			03/19/22 06:21	1
Aldicarb sulfoxide	<0.50		0.50		ug/L			03/19/22 06:21	1
Carbofuran	<0.90		0.90		ug/L			03/19/22 06:21	1
Oxamyl	<1.0		1.0		ug/L			03/19/22 06:21	1

Method: 547 - Glyphosate (DAI HPLC) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Glyphosate	<6.0		6.0		ug/L			03/16/22 01:55	1

Method: 549.2 - Diquat and Paraquat (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diquat	<0.40		0.40		ug/L		03/16/22 06:59	03/18/22 17:46	1

Method: 331.0 - Perchlorate (LC/MS/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	**0.63**		0.050		ug/L			03/17/22 18:57	1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1

Client Sample ID: Spring
Date Collected: 03/10/22 14:00
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Lab Sample ID: 810-17720-2
Matrix: Drinking Water

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		03/16/22 06:28	03/17/22 02:37	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*95*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*
13C5 PFPeA	*89*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*
13C5 PFHxA	*94*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*
13C4 PFHpA	*94*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*
13C8 PFOA	*95*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*
13C9 PFNA	*109*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*
13C6 PFDA	*95*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*
13C7 PFUnA	*74*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*
13C2 PFDoA	*64*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*
13C3 HFPO-DA	*95*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*
13C3 PFBS	*84*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*
13C8 PFOS	*87*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*
13C2-4:2-FTS	*87*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*
13C2-6:2-FTS	*94*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*

Client Sample ID: Spring
Date Collected: 03/10/22 14:00
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-2
Matrix: Drinking Water

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-8:2-FTS	*84*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*
13C3 PFHxS	*87*		*50 - 200*	*03/16/22 06:28*	*03/17/22 02:37*	*1*

Method: 1613B - Tetra Chlorinated Dioxin in Drinking Water

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<5.5		5.5		pg/L		03/21/22 15:00	03/23/22 01:29	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*107*		*25 - 164*	*03/21/22 15:00*	*03/23/22 01:29*	*1*

Method: 200.7 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	**6.5**		0.10		mg/L			03/18/22 14:38	1
Magnesium	**16**		0.10		mg/L			03/18/22 14:38	1
Iron	**0.026**		0.020		mg/L			03/18/22 14:38	1
Calcium	**110**		0.10		mg/L			03/18/22 14:38	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0		ug/L			03/17/22 16:33	1
Arsenic	<1.0		1.0		ug/L			03/17/22 16:33	1
Barium	**35**		2.0		ug/L			03/17/22 16:33	1
Beryllium	<0.30		0.30		ug/L			03/17/22 16:33	1
Cadmium	<0.50		0.50		ug/L			03/17/22 16:33	1
Chromium	**3.5**		0.90		ug/L			03/17/22 16:33	1
Copper	**1.6**		1.0		ug/L			03/17/22 16:33	1
Lead	<0.50		0.50		ug/L			03/17/22 16:33	1
Manganese	**3.8**		2.0		ug/L			03/17/22 16:33	1
Nickel	**1.7**		1.0		ug/L			03/17/22 16:33	1
Selenium	<2.0		2.0		ug/L			03/17/22 16:33	1
Silver	<0.50		0.50		ug/L			03/17/22 16:33	1
Thallium	<0.30		0.30		ug/L			03/17/22 16:33	1
Zinc	<5.0		5.0		ug/L			03/17/22 16:33	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.10		0.10		ug/L		03/18/22 11:54	03/18/22 16:05	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**340**		0.66		mg/L			03/20/22 17:00	1
Calcium hardness as calcium carbonate	**280**		0.25		mg/L			03/20/22 17:00	1
Magnesium hardness as calcium carbonate	**66**		0.41		mg/L			03/20/22 17:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0050		0.0050		mg/L		03/23/22 10:26	03/23/22 13:12	1
Nitrite as N	<0.010	H	0.010		mg/L			03/15/22 10:11	1
Nitrate Nitrite as N	**5.3**	**H**	0.10		mg/L			03/15/22 14:20	1
Free Chlorine	<0.50	HF	0.50		mg/L			03/11/22 18:17	1

Client Sample ID: Spring
Date Collected: 03/10/22 14:00
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-2
Matrix: Drinking Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**5.3**		0.10		mg/L			03/18/22 11:24	1
Color, Apparent	<5.0		5.0		Color Units			03/11/22 15:22	1
Specific Conductance	**590**		2.0		uS/cm			03/16/22 19:54	1
Fluoride	**0.090**		0.050		mg/L			03/18/22 07:33	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.5**	**HF**	0.1		SU			03/11/22 14:31	1
Turbidity	**1.7**		0.10		NTU			03/11/22 16:04	1
Monochloramine	<0.10	HF	0.10		mg/L			03/11/22 16:28	1
Dichloramine	<0.10	HF	0.10		mg/L			03/11/22 16:28	1
Nitrogen trichloride	<0.20	HF	0.20		mg/L			03/11/22 16:28	1
Chloramines, Total	<0.20	HF	0.20		mg/L			03/11/22 16:28	1
Chlorine dioxide, Residual	<0.24	HF	0.24		mg/L			03/10/22 14:00	1
Odor	**1.0**	**H**	1.0		T.O.N.			03/11/22 14:53	1
Alkalinity, Bicarbonate	**280**		1.0		mg/L			03/18/22 20:05	1
Alkalinity, Total	**280**		1.0		mg/L			03/18/22 20:05	1
Total Dissolved Solids	**380**		10		mg/L			03/17/22 10:37	1
Total Suspended Solids	<10		10		mg/L			03/16/22 15:40	1

Method: 7110B - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	-1.56	U			3.00	1.98	pCi/L	03/18/22 10:21	04/08/22 08:36	1
Gross Beta	0.170	U			4.00	1.96	pCi/L	03/18/22 10:21	04/08/22 08:36	1

Method: 7500 Ra D - Radium 226 Radium 228 Combined

Analyte	Result	Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.000	U			1.00	0.520	pCi/L		04/21/22 16:02	1

Method: SM7500 Ra B - Radium-226

Analyte	Result	Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Ra-226	-0.0500	U *			1.00	0.120	pCi/L	03/18/22 07:56	03/29/22 09:47	1

Method: SM7500 Ra D - Radium-228

Analyte	Result	Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Ra-228	-0.290	U			1.00	0.520	pCi/L	03/18/22 07:52	04/14/22 11:06	1

Method: SM7500_Rn_B - Radon

Analyte	Result	Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radon 222	**51.1**				12.0	9.70	pCi/L	03/11/22 12:43	03/12/22 06:44	1

Client Sample ID: Spring

Date Collected: 03/10/22 14:00
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-2
Matrix: Drinking Water

Method: 9223B - Coliforms, Total, and E.Coli (Presence/Absence)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	ABSENT	H			NONE			03/14/22 15:26	1
Coliform, Total	PRESENT	H			NONE			03/14/22 15:26	1

Method: SimPlate - Heterotrophic Plate Count (HPC)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heterotrophic Plate Count	150		2.0		MPN/mL			03/11/22 11:44	1

Client Sample ID: Well B

Date Collected: 03/10/22 12:10
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-5
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.020		0.020		mg/L			03/23/22 11:42	1
MBAS	<0.12	H	0.12		mg/L LAS MW320			03/19/22 03:58	1

Client Sample ID: Spring

Date Collected: 03/10/22 14:00
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-6
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.020		0.020		mg/L			03/23/22 10:18	1
MBAS	<0.12	H	0.12		mg/L LAS MW320			03/19/22 03:58	1

Surrogate Summary

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Drinking Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	TOL	BFB	DCZ
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
810-17720-1	Well B	102	94	83	81
810-17720-1	Well B	106	95	81	83
810-17720-2	Spring	103	97	87	87
810-17720-2	Spring	101	94	78	81
MB 810-14993/5	Method Blank	103	99	90	88
MB 810-15073/5	Method Blank	103	102	80	78

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DCZ = 1,2-Dichlorobenzene-d4 (Surr)

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Matrix: Drinking Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		DXE
Lab Sample ID	Client Sample ID	(70-130)
810-17720-1	Well B	85
810-17720-2	Spring	82
LLCS 810-15223/2-A	Lab Control Sample	76
MBL 810-15223/1-A	Method Blank	86

Surrogate Legend

DXE = 1,4-Dioxane-d8 (Surr)

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Matrix: Drinking Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		2NMX	PRY	TPP
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
810-17720-1	Well B	100	89	100
810-17720-2	Spring	101	93	106
LCS 810-15033/3-A	Lab Control Sample	96	93	98
LCS 810-15115/3-A	Lab Control Sample	99	93	104
LLCS 810-15033/2-A	Lab Control Sample	102	93	100
LLCS 810-15115/2-A	Lab Control Sample	99	95	107
MB 810-15033/1-A	Method Blank	100	91	99
MB 810-15115/1-A	Method Blank	101	93	105

Surrogate Legend

2NMX = 2-Nitro-m-xylene
PRY = Perylene-d12
TPP = Triphenylphosphate

Surrogate Summary

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Method: 548.1 - Endothall (GC/MS)

Matrix: Drinking Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		24D
Lab Sample ID	Client Sample ID	(70-130)
810-17720-1	Well B	110
810-17720-2	Spring	104
LCS 810-14823/2-A	Lab Control Sample	100
LLCS 810-14823/3-A	Lab Control Sample	118
MB 810-14823/1-A	Method Blank	119

Surrogate Legend

24D = 2,4-Dichlorophenoxyacetic acid (Surr)

Method: 515.3 - Herbicides (GC)

Matrix: Drinking Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		DCPAA1
Lab Sample ID	Client Sample ID	(70-130)
810-17720-1	Well B	93
810-17720-2	Spring	25 S1-
LLCS 810-15291/2-B	Lab Control Sample	100
LLCS 810-15484/2-B	Lab Control Sample	90
MB 810-15291/1-B	Method Blank	102
MB 810-15484/1-B	Method Blank	91

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Method: 551.1 - Chlorinated Disinfection Byproducts and Solvents (GC)

Matrix: Drinking Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		12DBP2
Lab Sample ID	Client Sample ID	
810-17720-1	Well B	100
810-17720-2	Spring	103
LLCS 810-15410/2-B	Lab Control Sample	102
MB 810-15410/1-B	Method Blank	108

Surrogate Legend

12DBP = 1,2-Dibromopropane

Method: 552.2 - Haloacetic Acids (HAAs) (GC)

Matrix: Drinking Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		2BPPA1
Lab Sample ID	Client Sample ID	(70-130)
810-17720-1	Well B	95
810-17720-2	Spring	94
MB 810-15027/1-A	Method Blank	93

Surrogate Legend

2BPPA = 2-Bromopropionic acid (Surr)

Surrogate Summary

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Matrix: Drinking Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	PFHxA (70-130)	PFDA (70-130)	HFPODA (70-130)	d5NEFOS (70-130)
810-17720-1	Well B	98	92	97	86
LLCS 810-14935/2-A	Lab Control Sample	107	101	98	94
MBL 810-14935/1-A	Method Blank	101	98	99	97

Surrogate Legend

PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
HFPODA = 13C3 HFPO-DA
d5NEFOS = d5-NEtFOSAA

Isotope Dilution Summary

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Matrix: Drinking Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (50-200)	PFPeA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	C6PFDA (50-200)	13C7PUA (50-200)
810-17720-1	Well B	91	85	90	89	89	105	98	85
810-17720-2	Spring	95	89	94	94	95	109	95	74
LLCS 810-14933/2-A	Lab Control Sample	97	97	99	97	98	105	100	94
MBL 810-14933/1-A	Method Blank	98	97	99	97	96	104	102	93

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (50-200)	HFPODA (50-200)	C3PFBS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)	C3PFHS (50-200)
810-17720-1	Well B	78	87	86	94	90	96	98	89
810-17720-2	Spring	64	95	84	87	87	94	84	87
LLCS 810-14933/2-A	Lab Control Sample	93	96	90	92	92	95	96	90
MBL 810-14933/1-A	Method Blank	90	95	93	95	90	90	90	94

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoA = 13C2 PFDoA
HFPODA = 13C3 HFPO-DA
C3PFBS = 13C3 PFBS
C8PFOS = 13C8 PFOS
42FTS = 13C2-4:2-FTS
62FTS = 13C2-6:2-FTS
82FTS = 13C2-8:2-FTS
C3PFHS = 13C3 PFHxS

Method: 1613B - Tetra Chlorinated Dioxin in Drinking Water

Matrix: Drinking Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCDD (25-164)							
810-17720-1	Well B	99							
810-17720-2	Spring	107							
MB 410-236037/1-A	Method Blank	91							

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD

Method: 1613B - Tetra Chlorinated Dioxin in Drinking Water

Matrix: Drinking Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCDD (20-175)							
LCS 410-236037/2-A	Lab Control Sample	93							

Surrogate Legend

Isotope Dilution Summary

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

TCDD = 13C-2,3,7,8-TCDD

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 810-14993/5
Matrix: Drinking Water
Analysis Batch: 14993

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.50		0.50		ug/L			03/16/22 17:33	1
1,1,1-Trichloroethane	<0.50		0.50		ug/L			03/16/22 17:33	1
1,1,2,2-Tetrachloroethane	<0.50		0.50		ug/L			03/16/22 17:33	1
1,1,2-Trichloroethane	<0.50		0.50		ug/L			03/16/22 17:33	1
1,1-Dichloroethane	<0.50		0.50		ug/L			03/16/22 17:33	1
1,1-Dichloroethene	<0.50		0.50		ug/L			03/16/22 17:33	1
1,1-Dichloropropene	<0.50		0.50		ug/L			03/16/22 17:33	1
1,2,3-Trichlorobenzene	<0.50		0.50		ug/L			03/16/22 17:33	1
1,2,3-Trichloropropane	<0.50		0.50		ug/L			03/16/22 17:33	1
1,2,4-Trichlorobenzene	<0.50		0.50		ug/L			03/16/22 17:33	1
1,2,4-Trimethylbenzene	<0.50		0.50		ug/L			03/16/22 17:33	1
1,2-Dibromo-3-Chloropropane	<0.20		0.20		ug/L			03/16/22 17:33	1
1,2-Dibromoethane (EDB)	<0.20		0.20		ug/L			03/16/22 17:33	1
1,2-Dichlorobenzene	<0.50		0.50		ug/L			03/16/22 17:33	1
1,2-Dichloroethane	<0.50		0.50		ug/L			03/16/22 17:33	1
1,2-Dichloropropane	<0.25		0.25		ug/L			03/16/22 17:33	1
o-Xylene	<0.50		0.50		ug/L			03/16/22 17:33	1
m-Xylene & p-Xylene	<0.50		0.50		ug/L			03/16/22 17:33	1
1,3,5-Trimethylbenzene	<0.50		0.50		ug/L			03/16/22 17:33	1
1,3-Dichlorobenzene	<0.50		0.50		ug/L			03/16/22 17:33	1
1,3-Dichloropropane	<0.50		0.50		ug/L			03/16/22 17:33	1
1,4-Dichlorobenzene	<0.50		0.50		ug/L			03/16/22 17:33	1
2,2-Dichloropropane	<0.50		0.50		ug/L			03/16/22 17:33	1
2-Chlorotoluene	<0.50		0.50		ug/L			03/16/22 17:33	1
4-Chlorotoluene	<0.50		0.50		ug/L			03/16/22 17:33	1
Benzene	<0.50		0.50		ug/L			03/16/22 17:33	1
4-Isopropyltoluene	<0.50		0.50		ug/L			03/16/22 17:33	1
Bromobenzene	<0.50		0.50		ug/L			03/16/22 17:33	1
Bromochloromethane	<0.50		0.50		ug/L			03/16/22 17:33	1
Bromodichloromethane	<0.50		0.50		ug/L			03/16/22 17:33	1
Bromoform	<0.50		0.50		ug/L			03/16/22 17:33	1
Bromomethane	<0.50		0.50		ug/L			03/16/22 17:33	1
Carbon tetrachloride	<0.50		0.50		ug/L			03/16/22 17:33	1
Chloroethane	<0.50		0.50		ug/L			03/16/22 17:33	1
Chlorobenzene	<0.50		0.50		ug/L			03/16/22 17:33	1
Chloromethane	<0.50		0.50		ug/L			03/16/22 17:33	1
Chloroform	<0.50		0.50		ug/L			03/16/22 17:33	1
Dibromomethane	<0.50		0.50		ug/L			03/16/22 17:33	1
Dichlorodifluoromethane	<0.50		0.50		ug/L			03/16/22 17:33	1
Dichloromethane	<0.50		0.50		ug/L			03/16/22 17:33	1
Dibromochloromethane	<0.50		0.50		ug/L			03/16/22 17:33	1
Ethylbenzene	<0.50		0.50		ug/L			03/16/22 17:33	1
Hexachlorobutadiene	<0.25		0.25		ug/L			03/16/22 17:33	1
Isopropylbenzene	<0.25		0.25		ug/L			03/16/22 17:33	1
Naphthalene	<0.50		0.50		ug/L			03/16/22 17:33	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50		ug/L			03/16/22 17:33	1
Styrene	<0.50		0.50		ug/L			03/16/22 17:33	1
Tetrachloroethene	<0.50		0.50		ug/L			03/16/22 17:33	1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 810-14993/5
Matrix: Drinking Water
Analysis Batch: 14993

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.50		0.50		ug/L			03/16/22 17:33	1
Trichloroethylene	<0.50		0.50		ug/L			03/16/22 17:33	1
Trichlorofluoromethane	<0.50		0.50		ug/L			03/16/22 17:33	1
Vinyl chloride	<0.20		0.20		ug/L			03/16/22 17:33	1
tert-Butylbenzene	<0.50		0.50		ug/L			03/16/22 17:33	1
cis-1,2-Dichloroethylene	<0.50		0.50		ug/L			03/16/22 17:33	1
cis-1,3-Dichloropropylene	<0.50		0.50		ug/L			03/16/22 17:33	1
n-Butylbenzene	<0.50		0.50		ug/L			03/16/22 17:33	1
N-Propylbenzene	<0.50		0.50		ug/L			03/16/22 17:33	1
sec-Butylbenzene	<0.50		0.50		ug/L			03/16/22 17:33	1
trans-1,2-Dichloroethylene	<0.50		0.50		ug/L			03/16/22 17:33	1
trans-1,3-Dichloropropylene	<0.50		0.50		ug/L			03/16/22 17:33	1
Xylenes, Total	<0.50		0.50		ug/L			03/16/22 17:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*03/16/22 17:33*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*03/16/22 17:33*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*03/16/22 17:33*	*1*
1,2-Dichlorobenzene-d4 (Surr)	*88*		*70 - 130*		*03/16/22 17:33*	*1*

Lab Sample ID: MB 810-15073/5
Matrix: Drinking Water
Analysis Batch: 15073

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.50		0.50		ug/L			03/18/22 00:05	1
Bromoform	<0.50		0.50		ug/L			03/18/22 00:05	1
Chloroform	<0.50		0.50		ug/L			03/18/22 00:05	1
Dibromochloromethane	<0.50		0.50		ug/L			03/18/22 00:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*03/18/22 00:05*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*03/18/22 00:05*	*1*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*		*03/18/22 00:05*	*1*
1,2-Dichlorobenzene-d4 (Surr)	*78*		*70 - 130*		*03/18/22 00:05*	*1*

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Lab Sample ID: MBL 810-15223/1-A
Matrix: Drinking Water
Analysis Batch: 15313

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15223

Analyte	MBL Result	MBL Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<0.032		0.070		ug/L		03/21/22 07:41	03/22/22 12:39	1

Surrogate	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*86*		*70 - 130*	*03/21/22 07:41*	*03/22/22 12:39*	*1*

Method: 522 - 1,4 Dioxane (GC/MS SIM) (Continued)

Lab Sample ID: LLCS 810-15223/2-A
Matrix: Drinking Water
Analysis Batch: 15313

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15223

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			0.0700	0.0607	J	ug/L		87	50 - 150		

Surrogate	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*76*		*70 - 130*

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 810-15033/1-A
Matrix: Drinking Water
Analysis Batch: 15085

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15033

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	<0.019		0.019		ug/L		03/17/22 07:44	03/17/22 22:17	1
Di(2-ethylhexyl)adipate	<0.58		0.58		ug/L		03/17/22 07:44	03/17/22 22:17	1
Di (2-ethylhexyl)phthalate	<0.58		0.58		ug/L		03/17/22 07:44	03/17/22 22:17	1
Hexachlorobenzene	<0.096		0.096		ug/L		03/17/22 07:44	03/17/22 22:17	1
Simazine	<0.067		0.067		ug/L		03/17/22 07:44	03/17/22 22:17	1
Alachlor	<0.096		0.096		ug/L		03/17/22 07:44	03/17/22 22:17	1
Atrazine	<0.096		0.096		ug/L		03/17/22 07:44	03/17/22 22:17	1
Benzo[a]pyrene	<0.019		0.019		ug/L		03/17/22 07:44	03/17/22 22:17	1
Endrin	<0.0096		0.0096		ug/L		03/17/22 07:44	03/17/22 22:17	1
Methoxychlor	<0.096		0.096		ug/L		03/17/22 07:44	03/17/22 22:17	1
Heptachlor	<0.039		0.039		ug/L		03/17/22 07:44	03/17/22 22:17	1
Hexachlorocyclopentadiene	<0.096		0.096		ug/L		03/17/22 07:44	03/17/22 22:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*100*		*70 - 130*	*03/17/22 07:44*	*03/17/22 22:17*	*1*
Perylene-d12	*91*		*70 - 130*	*03/17/22 07:44*	*03/17/22 22:17*	*1*
Triphenylphosphate	*99*		*70 - 130*	*03/17/22 07:44*	*03/17/22 22:17*	*1*

Lab Sample ID: LCS 810-15033/3-A
Matrix: Drinking Water
Analysis Batch: 15085

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15033

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Heptachlor epoxide			1.96	1.88		ug/L		96	70 - 130		
Di(2-ethylhexyl)adipate			1.96	2.04		ug/L		104	70 - 130		
Di (2-ethylhexyl)phthalate			1.96	2.04		ug/L		104	70 - 130		
Hexachlorobenzene			1.96	1.92		ug/L		98	70 - 130		
Simazine			1.96	2.04		ug/L		104	70 - 130		
Propachlor			1.96	2.09		ug/L		107	70 - 130		
Metribuzin			1.96	2.30		ug/L		118	70 - 130		
Butachlor			1.96	1.99		ug/L		102	70 - 130		
Aldrin			1.96	2.00		ug/L		102	70 - 130		
Metolachlor			1.96	2.06		ug/L		105	70 - 130		
gamma-BHC (Lindane)			1.96	2.07		ug/L		106	70 - 130		
Dieldrin			1.96	2.24		ug/L		114	70 - 130		
Endrin			1.96	2.25		ug/L		115	70 - 130		

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 810-15033/3-A
Matrix: Drinking Water
Analysis Batch: 15085

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15033

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methoxychlor	1.96	2.06		ug/L		105	70 - 130
Heptachlor	1.96	2.14		ug/L		110	70 - 130
Hexachlorocyclopentadiene	1.96	1.76		ug/L		90	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Nitro-m-xylene	*96*		*70 - 130*
Perylene-d12	*93*		*70 - 130*
Triphenylphosphate	*98*		*70 - 130*

Lab Sample ID: LLCS 810-15033/2-A
Matrix: Drinking Water
Analysis Batch: 15085

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15033

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Heptachlor epoxide	0.00977	<0.020		ug/L		116	50 - 150
Di(2-ethylhexyl)adipate	0.586	<0.59		ug/L		94	50 - 150
Di (2-ethylhexyl)phthalate	0.586	0.615		ug/L		105	50 - 150
Hexachlorobenzene	0.0977	0.0888	J	ug/L		91	50 - 150
Simazine	0.0684	0.0639	J	ug/L		93	50 - 150
Propachlor	0.0977	0.0945	J	ug/L		97	50 - 150
Metribuzin	0.0977	0.0887	J	ug/L		91	50 - 150
Butachlor	0.0977	0.0898	J	ug/L		92	50 - 150
Aldrin	0.0684	0.0783	J	ug/L		115	50 - 150
Metolachlor	0.0977	0.0926	J	ug/L		95	50 - 150
gamma-BHC (Lindane)	0.0195	0.0204		ug/L		104	50 - 150
Dieldrin	0.0195	0.0234	J	ug/L		120	50 - 150
Endrin	0.00977	0.0122		ug/L		125	50 - 150
Methoxychlor	0.0977	0.0871	J	ug/L		89	50 - 150
Heptachlor	0.00977	0.0103	J	ug/L		105	50 - 150
Hexachlorocyclopentadiene	0.0977	0.0907	J	ug/L		93	50 - 150

Surrogate	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
2-Nitro-m-xylene	*102*		*70 - 130*
Perylene-d12	*93*		*70 - 130*
Triphenylphosphate	*100*		*70 - 130*

Lab Sample ID: MB 810-15115/1-A
Matrix: Drinking Water
Analysis Batch: 15245

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15115

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	<0.019		0.019		ug/L		03/18/22 07:44	03/21/22 16:50	1
Di(2-ethylhexyl)adipate	<0.58		0.58		ug/L		03/18/22 07:44	03/21/22 16:50	1
Di (2-ethylhexyl)phthalate	<0.58		0.58		ug/L		03/18/22 07:44	03/21/22 16:50	1
Hexachlorobenzene	<0.097		0.097		ug/L		03/18/22 07:44	03/21/22 16:50	1
Simazine	<0.068		0.068		ug/L		03/18/22 07:44	03/21/22 16:50	1
Alachlor	<0.097		0.097		ug/L		03/18/22 07:44	03/21/22 16:50	1
Atrazine	<0.097		0.097		ug/L		03/18/22 07:44	03/21/22 16:50	1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 810-15115/1-A
Matrix: Drinking Water
Analysis Batch: 15245

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15115

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.019		0.019		ug/L		03/18/22 07:44	03/21/22 16:50	1
Endrin	<0.0097		0.0097		ug/L		03/18/22 07:44	03/21/22 16:50	1
Methoxychlor	<0.097		0.097		ug/L		03/18/22 07:44	03/21/22 16:50	1
Heptachlor	<0.039		0.039		ug/L		03/18/22 07:44	03/21/22 16:50	1
Hexachlorocyclopentadiene	<0.097		0.097		ug/L		03/18/22 07:44	03/21/22 16:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*101*		*70 - 130*	*03/18/22 07:44*	*03/21/22 16:50*	*1*
Perylene-d12	*93*		*70 - 130*	*03/18/22 07:44*	*03/21/22 16:50*	*1*
Triphenylphosphate	*105*		*70 - 130*	*03/18/22 07:44*	*03/21/22 16:50*	*1*

Lab Sample ID: LCS 810-15115/3-A
Matrix: Drinking Water
Analysis Batch: 15245

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15115

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Heptachlor epoxide	1.94	1.87		ug/L		97	70 - 130
Di(2-ethylhexyl)adipate	1.94	1.89		ug/L		98	70 - 130
Di (2-ethylhexyl)phthalate	1.94	1.84		ug/L		95	70 - 130
Hexachlorobenzene	1.94	1.84		ug/L		95	70 - 130
Simazine	1.94	1.98		ug/L		102	70 - 130
Propachlor	1.94	2.00		ug/L		103	70 - 130
Metribuzin	1.94	2.17		ug/L		112	70 - 130
Butachlor	1.94	1.97		ug/L		102	70 - 130
Aldrin	1.94	1.75		ug/L		90	70 - 130
Metolachlor	1.94	1.92		ug/L		99	70 - 130
gamma-BHC (Lindane)	1.94	1.90		ug/L		98	70 - 130
Dieldrin	1.94	1.97		ug/L		102	70 - 130
Endrin	1.94	1.89		ug/L		98	70 - 130
Methoxychlor	1.94	1.78		ug/L		92	70 - 130
Heptachlor	1.94	1.73		ug/L		89	70 - 130
Hexachlorocyclopentadiene	1.94	1.68		ug/L		87	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Nitro-m-xylene	*99*		*70 - 130*
Perylene-d12	*93*		*70 - 130*
Triphenylphosphate	*104*		*70 - 130*

Lab Sample ID: LLCS 810-15115/2-A
Matrix: Drinking Water
Analysis Batch: 15245

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15115

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Heptachlor epoxide	0.00974	<0.019		ug/L		81	50 - 150
Di(2-ethylhexyl)adipate	0.584	<0.58		ug/L		94	50 - 150
Di (2-ethylhexyl)phthalate	0.584	<0.58		ug/L		97	50 - 150
Hexachlorobenzene	0.0974	0.0819	J	ug/L		84	50 - 150
Simazine	0.0682	0.0653	J	ug/L		96	50 - 150

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LLCS 810-15115/2-A
Matrix: Drinking Water
Analysis Batch: 15245

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15115

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Propachlor	0.0974	0.0890	J	ug/L		91	50 - 150
Metribuzin	0.0974	0.0943	J	ug/L		97	50 - 150
Butachlor	0.0974	0.0848	J	ug/L		87	50 - 150
Aldrin	0.0682	0.0577	J	ug/L		85	50 - 150
Metolachlor	0.0974	0.0855	J	ug/L		88	50 - 150
gamma-BHC (Lindane)	0.0195	0.0168	J	ug/L		87	50 - 150
Dieldrin	0.0195	0.0199	J	ug/L		102	50 - 150
Endrin	0.00974	0.0130		ug/L		134	50 - 150
Methoxychlor	0.0974	0.0748	J	ug/L		77	50 - 150
Heptachlor	0.00974	<0.0097		ug/L		80	50 - 150
Hexachlorocyclopentadiene	0.0974	0.0840	J	ug/L		86	50 - 150

Surrogate	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
2-Nitro-m-xylene	*99*		*70 - 130*
Perylene-d12	*95*		*70 - 130*
Triphenylphosphate	*107*		*70 - 130*

Method: 548.1 - Endothall (GC/MS)

Lab Sample ID: MB 810-14823/1-A
Matrix: Drinking Water
Analysis Batch: 15042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14823

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endothall	<5.0		5.0		ug/L		03/15/22 06:53	03/16/22 23:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenoxyacetic acid (Surr)	*119*		*70 - 130*	*03/15/22 06:53*	*03/16/22 23:54*	*1*

Lab Sample ID: LCS 810-14823/2-A
Matrix: Drinking Water
Analysis Batch: 15042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14823

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Endothall	10.0	11.3		ug/L		113	69 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenoxyacetic acid (Surr)	*100*		*70 - 130*

Lab Sample ID: LLCS 810-14823/3-A
Matrix: Drinking Water
Analysis Batch: 15042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14823

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Endothall	9.00	11.0		ug/L		123	50 - 150

Method: 548.1 - Endothall (GC/MS) (Continued)

Lab Sample ID: LLCS 810-14823/3-A
Matrix: Drinking Water
Analysis Batch: 15042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14823

Surrogate	LLCS %Recovery	LLCS Qualifier	Limits
2,4-Dichlorophenoxyacetic acid (Surr)	118		70 - 130

Method: 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

Lab Sample ID: MB 810-14862/24-A
Matrix: Drinking Water
Analysis Batch: 14919

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14862

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	<0.010		0.010		ug/L		03/15/22 10:15	03/15/22 19:20	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010		ug/L		03/15/22 10:15	03/15/22 19:20	1

Lab Sample ID: LCS 810-14862/30-A
Matrix: Drinking Water
Analysis Batch: 14919

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14862

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	0.250	0.265		ug/L		106	70 - 130
1,2-Dibromo-3-Chloropropane	0.250	0.242		ug/L		97	70 - 130

Lab Sample ID: LLCS 810-14862/25-A
Matrix: Drinking Water
Analysis Batch: 14919

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14862

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	0.0100	0.0150		ug/L		150	50 - 150
1,2-Dibromo-3-Chloropropane	0.0100	0.0113		ug/L		113	50 - 150

Method: 505 - Organochlorine Pesticides/PCBs (GC)

Lab Sample ID: MB 810-14969/24-A
Matrix: Drinking Water
Analysis Batch: 14999

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14969

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.080		0.080		ug/L		03/16/22 09:55	03/16/22 18:02	1
PCB-1221	<0.19		0.19		ug/L		03/16/22 09:55	03/16/22 18:02	1
PCB-1232	<0.23		0.23		ug/L		03/16/22 09:55	03/16/22 18:02	1
PCB-1242	<0.26		0.26		ug/L		03/16/22 09:55	03/16/22 18:02	1
PCB-1248	<0.10		0.10		ug/L		03/16/22 09:55	03/16/22 18:02	1
PCB-1254	<0.10		0.10		ug/L		03/16/22 09:55	03/16/22 18:02	1
PCB-1260	<0.20		0.20		ug/L		03/16/22 09:55	03/16/22 18:02	1
Chlordane (technical)	<0.10		0.10		ug/L		03/16/22 09:55	03/16/22 18:02	1
Toxaphene	<1.0		1.0		ug/L		03/16/22 09:55	03/16/22 18:02	1
Total PCBs as DCB (Qualitative)	<0.50		0.50		ug/L		03/16/22 09:55	03/16/22 18:02	1

Method: 505 - Organochlorine Pesticides/PCBs (GC) (Continued)

Lab Sample ID: LLCS 810-14969/31-A
Matrix: Drinking Water
Analysis Batch: 14999

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14969

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chlordane (technical)	0.100	0.136		ug/L		136	50 - 150

Lab Sample ID: LLCS 810-14969/32-A
Matrix: Drinking Water
Analysis Batch: 14999

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14969

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Toxaphene	1.00	0.779	J	ug/L		78	50 - 150

Lab Sample ID: 810-17720-1 MS
Matrix: Drinking Water
Analysis Batch: 14999

Client Sample ID: Well B
Prep Type: Total/NA
Prep Batch: 14969

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1242	<0.26		1.00	1.20		ug/L		120	65 - 135

Lab Sample ID: 810-17720-2 MS
Matrix: Drinking Water
Analysis Batch: 14999

Client Sample ID: Spring
Prep Type: Total/NA
Prep Batch: 14969

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chlordane (technical)	<0.10		1.00	0.875		ug/L		88	65 - 135

Lab Sample ID: 810-17720-2 MSD
Matrix: Drinking Water
Analysis Batch: 14999

Client Sample ID: Spring
Prep Type: Total/NA
Prep Batch: 14969

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chlordane (technical)	<0.10		1.00	0.861		ug/L		86	65 - 135	2	14

Method: 515.3 - Herbicides (GC)

Lab Sample ID: MB 810-15291/1-B
Matrix: Drinking Water
Analysis Batch: 15378

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15291

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-TP (Silvex)	<0.10		0.10		ug/L		03/22/22 07:29	03/22/22 18:47	1
Dalapon	<1.0		1.0		ug/L		03/22/22 07:29	03/22/22 18:47	1
Dinoseb	<0.10		0.10		ug/L		03/22/22 07:29	03/22/22 18:47	1
Pentachlorophenol	<0.040		0.040		ug/L		03/22/22 07:29	03/22/22 18:47	1
Picloram	<0.10		0.10		ug/L		03/22/22 07:29	03/22/22 18:47	1
2,4-D	<0.10		0.10		ug/L		03/22/22 07:29	03/22/22 18:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*102*		*70 - 130*	*03/22/22 07:29*	*03/22/22 18:47*	*1*

Method: 515.3 - Herbicides (GC) (Continued)

Lab Sample ID: LLCS 810-15291/2-B
Matrix: Drinking Water
Analysis Batch: 15378

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15291

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-TP (Silvex)	0.100	0.0887	J	ug/L		89	48 - 148
Dicamba	0.200	0.151		ug/L		75	
Dinoseb	0.200	0.177		ug/L		89	39 - 141
Pentachlorophenol	0.0400	0.0420		ug/L		105	30 - 171
Picloram	0.100	0.0746	J	ug/L		75	24 - 150
2,4-D	0.200	0.135		ug/L		68	24 - 138

Surrogate	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*100*		*70 - 130*

Lab Sample ID: MB 810-15484/1-B
Matrix: Drinking Water
Analysis Batch: 15555

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15484

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-TP (Silvex)	<0.10		0.10		ug/L		03/24/22 08:28	03/25/22 11:45	1
Dalapon	<1.0		1.0		ug/L		03/24/22 08:28	03/25/22 11:45	1
Dinoseb	<0.10		0.10		ug/L		03/24/22 08:28	03/25/22 11:45	1
Pentachlorophenol	<0.040		0.040		ug/L		03/24/22 08:28	03/25/22 11:45	1
Picloram	<0.10		0.10		ug/L		03/24/22 08:28	03/25/22 11:45	1
2,4-D	<0.10		0.10		ug/L		03/24/22 08:28	03/25/22 11:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*91*		*70 - 130*	*03/24/22 08:28*	*03/25/22 11:45*	*1*

Lab Sample ID: LLCS 810-15484/2-B
Matrix: Drinking Water
Analysis Batch: 15555

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15484

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-TP (Silvex)	0.100	0.0773	J	ug/L		77	48 - 148
Dinoseb	0.200	0.174		ug/L		87	39 - 141
Pentachlorophenol	0.0400	0.0380	J	ug/L		95	30 - 171
Picloram	0.100	0.0731	J	ug/L		73	24 - 150
2,4-D	0.200	<0.10		ug/L		48	24 - 138

Surrogate	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*90*		*70 - 130*

Method: 551.1 - Chlorinated Disinfection Byproducts and Solvents (GC)

Lab Sample ID: MB 810-15410/1-B
Matrix: Drinking Water
Analysis Batch: 15474

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15410

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	<1.0		1.0		ug/L		03/23/22 10:03	03/24/22 01:49	1
Dichloroacetonitrile	<0.50		0.50		ug/L		03/23/22 10:03	03/24/22 01:49	1

Method: 551.1 - Chlorinated Disinfection Byproducts and Solvents (GC) (Continued)

Lab Sample ID: MB 810-15410/1-B
Matrix: Drinking Water
Analysis Batch: 15474

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15410

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromoacetonitrile	<0.50		0.50		ug/L		03/23/22 10:03	03/24/22 01:49	1
1,1-Dichloro-2-propanone	<0.50		0.50		ug/L		03/23/22 10:03	03/24/22 01:49	1
Trichloroacetonitrile	<0.50		0.50		ug/L		03/23/22 10:03	03/24/22 01:49	1
Chloroform	<1.0		1.0		ug/L		03/23/22 10:03	03/24/22 01:49	1
Bromoform	<1.0		1.0		ug/L		03/23/22 10:03	03/24/22 01:49	1
Bromodichloromethane	<1.0		1.0		ug/L		03/23/22 10:03	03/24/22 01:49	1
Chloropicrin	<0.50		0.50		ug/L		03/23/22 10:03	03/24/22 01:49	1
Bromochloroacetonitrile	<0.50		0.50		ug/L		03/23/22 10:03	03/24/22 01:49	1
1,1,1-Trichloro-2-propanone	<0.50		0.50		ug/L		03/23/22 10:03	03/24/22 01:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dibromopropane	*108*			*03/23/22 10:03*	*03/24/22 01:49*	*1*

Lab Sample ID: LLCS 810-15410/2-B
Matrix: Drinking Water
Analysis Batch: 15474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15410

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Dibromochloromethane	1.00	1.04		ug/L		104	50 - 150
Dichloroacetonitrile	1.00	1.03		ug/L		103	
Dibromoacetonitrile	1.00	0.991		ug/L		99	
1,1-Dichloro-2-propanone	1.00	1.07		ug/L		107	
Trichloroacetonitrile	1.00	0.943		ug/L		94	
Chloroform	1.00	0.992	J	ug/L		99	50 - 150
Bromoform	1.00	1.07		ug/L		107	50 - 150
Bromodichloromethane	1.00	0.962	J	ug/L		96	50 - 150
Chloropicrin	1.00	1.11		ug/L		111	
Bromochloroacetonitrile	1.00	1.06		ug/L		106	
1,1,1-Trichloro-2-propanone	1.00	1.03		ug/L		103	

Surrogate	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
1,2-Dibromopropane	*102*		

Method: 552.2 - Haloacetic Acids (HAAs) (GC)

Lab Sample ID: MB 810-15027/1-A
Matrix: Drinking Water
Analysis Batch: 15075

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15027

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromoacetic acid	<1.0		1.0		ug/L		03/17/22 08:11	03/18/22 09:38	1
Dichloroacetic acid	<1.0		1.0		ug/L		03/17/22 08:11	03/18/22 09:38	1
Monobromoacetic acid	<1.0		1.0		ug/L		03/17/22 08:11	03/18/22 09:38	1
Monochloroacetic acid	<2.0		2.0		ug/L		03/17/22 08:11	03/18/22 09:38	1
Trichloroacetic acid	<1.0		1.0		ug/L		03/17/22 08:11	03/18/22 09:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Bromopropionic acid (Surr)	*93*		*70 - 130*	*03/17/22 08:11*	*03/18/22 09:38*	*1*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 810-14912/4
Matrix: Drinking Water
Analysis Batch: 14912

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorite	<10		10		ug/L			03/15/22 15:30	1
Chlorate	<10		10		ug/L			03/15/22 15:30	1
Bromide	<10		10		ug/L			03/15/22 15:30	1

Lab Sample ID: LCS 810-14912/5
Matrix: Drinking Water
Analysis Batch: 14912

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chlorite	250	253		ug/L		101	90 - 110
Chlorate	250	246		ug/L		98	90 - 110
Bromide	250	255		ug/L		102	90 - 110

Lab Sample ID: MB 810-14976/4
Matrix: Drinking Water
Analysis Batch: 14976

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			03/15/22 13:38	1
Sulfate	<5.0		5.0		mg/L			03/15/22 13:38	1

Lab Sample ID: LCS 810-14976/5
Matrix: Drinking Water
Analysis Batch: 14976

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.3		mg/L		103	90 - 110
Sulfate	25.0	25.8		mg/L		103	90 - 110

Lab Sample ID: 810-17720-1 MS
Matrix: Drinking Water
Analysis Batch: 14976

Client Sample ID: Well B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15		10.0	25.1		mg/L		99	90 - 110
Sulfate	19		25.0	43.7		mg/L		98	90 - 110

Lab Sample ID: 810-17720-1 MSD
Matrix: Drinking Water
Analysis Batch: 14976

Client Sample ID: Well B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	15		10.0	25.4		mg/L		102	90 - 110	1	20
Sulfate	19		25.0	44.4		mg/L		101	90 - 110	1	20

Method: 317 - Bromate, Ion Chromatography

Lab Sample ID: MBL 810-14989/10
Matrix: Drinking Water
Analysis Batch: 14989

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MBL Result	MBL Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<0.19		1.0		ug/L			03/16/22 18:27	1

Lab Sample ID: LCS 810-14989/11
Matrix: Drinking Water
Analysis Batch: 14989

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	5.00	4.92		ug/L		98	85 - 115

Method: 531.2 - Carbamate Pesticides (HPLC)

Lab Sample ID: MBL 810-14952/1-A
Matrix: Drinking Water
Analysis Batch: 15067

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MBL Result	MBL Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldicarb	<0.20		0.50		ug/L			03/18/22 19:58	1
Aldicarb sulfone	<0.20		0.70		ug/L			03/18/22 19:58	1
Aldicarb sulfoxide	<0.20		0.50		ug/L			03/18/22 19:58	1
Carbofuran	<0.20		0.90		ug/L			03/18/22 19:58	1
Oxamyl	<0.20		1.0		ug/L			03/18/22 19:58	1

Method: 547 - Glyphosate (DAI HPLC)

Lab Sample ID: MB 810-14840/8-A
Matrix: Drinking Water
Analysis Batch: 14891

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Glyphosate	<6.0		6.0		ug/L			03/15/22 19:03	1

Lab Sample ID: LCS 810-14840/10-A
Matrix: Drinking Water
Analysis Batch: 14891

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Glyphosate	50.0	51.6		ug/L		103	73 - 122

Lab Sample ID: LLCS 810-14840/9-A
Matrix: Drinking Water
Analysis Batch: 14891

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Glyphosate	6.00	5.85	J	ug/L		97	42 - 160

Method: 547 - Glyphosate (DAI HPLC) (Continued)

Lab Sample ID: 810-17720-1 DU
Matrix: Drinking Water
Analysis Batch: 14891

Client Sample ID: Well B
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Glyphosate	<6.0			<6.0		ug/L				NC	19

Method: 549.2 - Diquat and Paraquat (HPLC)

Lab Sample ID: MB 810-14934/1-A
Matrix: Drinking Water
Analysis Batch: 15152

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14934

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diquat	<0.40		0.40		ug/L		03/16/22 06:59	03/18/22 15:58	1

Lab Sample ID: LCS 810-14934/3-A
Matrix: Drinking Water
Analysis Batch: 15152

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14934

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diquat			5.00	4.70		ug/L		94	70 - 130		

Lab Sample ID: LLCS 810-14934/2-A
Matrix: Drinking Water
Analysis Batch: 15152

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14934

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diquat			0.400	0.450		ug/L		112	21 - 161		

Lab Sample ID: 810-17720-1 MS
Matrix: Drinking Water
Analysis Batch: 15152

Client Sample ID: Well B
Prep Type: Total/NA
Prep Batch: 14934

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diquat	<0.40	F1	5.00	2.36	F1	ug/L		47	70 - 130		

Method: 331.0 - Perchlorate (LC/MS/MS)

Lab Sample ID: MBL 810-14964/12
Matrix: Drinking Water
Analysis Batch: 14964

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MBL Result	MBL Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	<0.012		0.050		ug/L			03/17/22 16:05	1

Lab Sample ID: LLCS 810-14964/14
Matrix: Drinking Water
Analysis Batch: 14964

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perchlorate			0.0500	0.0507		ug/L		101	50 - 150		

Method: 331.0 - Perchlorate (LC/MS/MS) (Continued)

Lab Sample ID: 810-17720-2 LMS
Matrix: Drinking Water
Analysis Batch: 14964

Client Sample ID: Spring
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	LMS Result	LMS Qualifier	Unit	D	%Rec	%Rec Limits
Perchlorate	0.63		0.0500	0.653	4	ug/L		37	50 - 150

Lab Sample ID: 810-17720-2 LMSD
Matrix: Drinking Water
Analysis Batch: 14964

Client Sample ID: Spring
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	LMSD Result	LMSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perchlorate	0.63		0.0500	0.655	4	ug/L		41	50 - 150	0	50

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Lab Sample ID: MBL 810-14933/1-A
Matrix: Drinking Water
Analysis Batch: 14981

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14933

Analyte	MBL Result	MBL Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluoropentanoic acid (PFPeA)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluorohexanoic acid (PFHxA)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluoroheptanoic acid (PFHpA)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluorooctanoic acid (PFOA)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluorononanoic acid (PFNA)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluorodecanoic acid (PFDA)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluoroundecanoic acid (PFUnA)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluorododecanoic acid (PFDoA)	0.367	J	2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluoropentanesulfonic acid (PFPeS)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluorohexanesulfonic acid (PFHxS)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluorooctanesulfonic acid (PFOS)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<0.60		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<0.50		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<0.50		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: MBL 810-14933/1-A
Matrix: Drinking Water
Analysis Batch: 14981

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14933

Analyte	MBL Result	MBL Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.20		2.0		ng/L		03/16/22 06:28	03/16/22 19:38	1

Isotope Dilution	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C5 PFPeA	*97*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C5 PFHxA	*99*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C4 PFHpA	*97*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C8 PFOA	*96*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C9 PFNA	*104*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C6 PFDA	*102*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C7 PFUnA	*93*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C2 PFDoA	*90*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C3 HFPO-DA	*95*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C3 PFBS	*93*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C8 PFOS	*95*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C2-4:2-FTS	*90*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C2-6:2-FTS	*90*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C2-8:2-FTS	*90*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*
13C3 PFHxS	*94*		*50 - 200*	*03/16/22 06:28*	*03/16/22 19:38*	*1*

Lab Sample ID: LLCS 810-14933/2-A
Matrix: Drinking Water
Analysis Batch: 14981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14933

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	2.00	2.02		ng/L		101	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.07		ng/L		104	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	1.91	J	ng/L		96	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.02		ng/L		101	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	1.96	J	ng/L		98	50 - 150
Perfluorononanoic acid (PFNA)	2.00	1.92	J	ng/L		96	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.03		ng/L		102	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	1.94	J	ng/L		97	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	1.97	J	ng/L		99	50 - 150
Perfluorobutanesulfonic acid (PFBS)	1.77	1.75	J	ng/L		99	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	1.88	1.92	J	ng/L		102	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.70	J	ng/L		93	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	1.90	1.78	J	ng/L		93	50 - 150
Perfluorooctanesulfonic acid (PFOS)	1.85	1.76	J	ng/L		95	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	1.78	1.78	J	ng/L		100	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	1.87	2.01		ng/L		107	50 - 150

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: LLCS 810-14933/2-A
Matrix: Drinking Water
Analysis Batch: 14981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14933

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	1.90	1.98	J	ng/L		104	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	1.92	1.94	J	ng/L		101	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	2.00	1.95	J	ng/L		98	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.89	1.86	J	ng/L		98	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	1.86	1.81	J	ng/L		97	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	1.88	1.65	J	ng/L		87	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	1.76	J	ng/L		88	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	1.79	J	ng/L		90	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	1.94	J	ng/L		97	50 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*97*		*50 - 200*
13C5 PFPeA	*97*		*50 - 200*
13C5 PFHxA	*99*		*50 - 200*
13C4 PFHpA	*97*		*50 - 200*
13C8 PFOA	*98*		*50 - 200*
13C9 PFNA	*105*		*50 - 200*
13C6 PFDA	*100*		*50 - 200*
13C7 PFUnA	*94*		*50 - 200*
13C2 PFDoA	*93*		*50 - 200*
13C3 HFPO-DA	*96*		*50 - 200*
13C3 PFBS	*90*		*50 - 200*
13C8 PFOS	*92*		*50 - 200*
13C2-4:2-FTS	*92*		*50 - 200*
13C2-6:2-FTS	*95*		*50 - 200*
13C2-8:2-FTS	*96*		*50 - 200*
13C3 PFHxS	*90*		*50 - 200*

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Lab Sample ID: MBL 810-14935/1-A
Matrix: Drinking Water
Analysis Batch: 15034

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14935

Analyte	MBL Result	MBL Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	<0.40		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
Perfluoroundecanoic acid (PFUnA)	<0.50		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
Perfluorohexanoic acid (PFHxA)	<0.40		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
Perfluorododecanoic acid (PFDoA)	<0.40		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
Perfluorooctanoic acid (PFOA)	<0.40		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
Perfluorodecanoic acid (PFDA)	<0.50		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
Perfluorohexanesulfonic acid (PFHxS)	<0.50		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: MBL 810-14935/1-A
Matrix: Drinking Water
Analysis Batch: 15034

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14935

Analyte	MBL Result	MBL Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	<0.40		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
Perfluoroheptanoic acid (PFHpA)	<0.40		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
Perfluorononanoic acid (PFNA)	<0.50		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
Perfluorotetradecanoic acid (PFTeDA)	<0.60		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
Perfluorotridecanoic acid (PFTrDA)	<0.50		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.50		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.60		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<0.50		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<0.50		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<0.50		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.61		2.0		ng/L		03/16/22 07:55	03/17/22 15:37	1

Surrogate	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*101*		*70 - 130*	*03/16/22 07:55*	*03/17/22 15:37*	*1*
13C2 PFDA	*98*		*70 - 130*	*03/16/22 07:55*	*03/17/22 15:37*	*1*
13C3 HFPO-DA	*99*		*70 - 130*	*03/16/22 07:55*	*03/17/22 15:37*	*1*
d5-NEtFOSAA	*97*		*70 - 130*	*03/16/22 07:55*	*03/17/22 15:37*	*1*

Lab Sample ID: LLCS 810-14935/2-A
Matrix: Drinking Water
Analysis Batch: 15034

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14935

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	1.98	2.21		ng/L		112	50 - 150
Perfluoroundecanoic acid (PFUnA)	1.98	2.33		ng/L		118	50 - 150
Perfluorohexanoic acid (PFHxA)	1.98	2.40		ng/L		121	50 - 150
Perfluorododecanoic acid (PFDoA)	1.98	2.27		ng/L		114	50 - 150
Perfluorooctanoic acid (PFOA)	1.98	2.28		ng/L		115	50 - 150
Perfluorodecanoic acid (PFDA)	1.98	2.27		ng/L		115	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	1.98	2.17		ng/L		110	50 - 150
Perfluorobutanesulfonic acid (PFBS)	1.98	2.13		ng/L		108	50 - 150
Perfluoroheptanoic acid (PFHpA)	1.98	2.49		ng/L		126	50 - 150
Perfluorononanoic acid (PFNA)	1.98	2.48		ng/L		125	50 - 150
Perfluorotetradecanoic acid (PFTeDA)	1.98	2.17		ng/L		110	50 - 150
Perfluorotridecanoic acid (PFTrDA)	1.98	2.23		ng/L		113	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.98	2.00		ng/L		101	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.98	2.21		ng/L		112	50 - 150

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: LLCS 810-14935/2-A
Matrix: Drinking Water
Analysis Batch: 15034

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14935

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.98	2.31		ng/L		117	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	1.98	1.99	J	ng/L		101	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	1.98	1.99	J	ng/L		100	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.98	2.36		ng/L		119	50 - 150

Surrogate	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C2 PFHxA	*107*		*70 - 130*
13C2 PFDA	*101*		*70 - 130*
13C3 HFPO-DA	*98*		*70 - 130*
d5-NEtFOSAA	*94*		*70 - 130*

Method: 1613B - Tetra Chlorinated Dioxin in Drinking Water

Lab Sample ID: MB 410-236037/1-A
Matrix: Drinking Water
Analysis Batch: 236375

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 236037

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<4.0		4.0		pg/L		03/21/22 15:00	03/22/22 18:52	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*91*		*25 - 164*	*03/21/22 15:00*	*03/22/22 18:52*	*1*

Lab Sample ID: LCS 410-236037/2-A
Matrix: Drinking Water
Analysis Batch: 236375

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 236037

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,3,7,8-TCDD	2.00	1.36	J	pg/L		68	67 - 158

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*93*		*20 - 175*

Method: 200.7 - Metals (ICP)

Lab Sample ID: MB 810-15167/12
Matrix: Drinking Water
Analysis Batch: 15167

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	<0.10		0.10		mg/L			03/18/22 14:22	1
Magnesium	<0.10		0.10		mg/L			03/18/22 14:22	1
Iron	<0.020		0.020		mg/L			03/18/22 14:22	1
Calcium	<0.10		0.10		mg/L			03/18/22 14:22	1

Method: 200.7 - Metals (ICP) (Continued)

Lab Sample ID: MB 810-15167/44
Matrix: Drinking Water
Analysis Batch: 15167

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	<0.10		0.10		mg/L			03/18/22 15:31	1
Magnesium	<0.10		0.10		mg/L			03/18/22 15:31	1
Iron	<0.020		0.020		mg/L			03/18/22 15:31	1
Calcium	<0.10		0.10		mg/L			03/18/22 15:31	1

Lab Sample ID: LCS 810-15167/15
Matrix: Drinking Water
Analysis Batch: 15167

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	5.00	5.01		mg/L		100	85 - 115
Silica	5.00	4.92		mg/L		98	85 - 115
Potassium	5.00	5.02		mg/L		100	85 - 115
Magnesium	5.00	5.06		mg/L		101	85 - 115
Iron	5.00	5.00		mg/L		100	85 - 115
Calcium	5.00	5.03		mg/L		101	85 - 115

Lab Sample ID: LLCS 810-15167/11
Matrix: Drinking Water
Analysis Batch: 15167

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	0.0100	<0.022		mg/L		99	50 - 150
Silica	0.0200	<0.019		mg/L		93	50 - 150
Potassium	0.0100	<0.015		mg/L		121	50 - 150
Magnesium	0.0100	0.0106	J	mg/L		106	50 - 150
Iron	0.0100	<0.012		mg/L		117	50 - 150
Calcium	0.0100	<0.020		mg/L		107	50 - 150

Lab Sample ID: LLCS 810-15167/13
Matrix: Drinking Water
Analysis Batch: 15167

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	0.100	0.0952	J	mg/L		95	50 - 150
Silica	0.100	0.0922	J	mg/L		92	50 - 150
Potassium	0.100	0.0967	J	mg/L		97	50 - 150
Magnesium	0.100	0.0953	J	mg/L		95	50 - 150
Calcium	0.100	0.0858	J	mg/L		86	50 - 150

Lab Sample ID: 810-17720-1 MS
Matrix: Drinking Water
Analysis Batch: 15167

Client Sample ID: Well B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	6.7		5.00	11.9		mg/L		105	70 - 130
Silica	9.5		5.00	14.5		mg/L		101	70 - 130
Potassium	2.2		5.00	7.50		mg/L		106	70 - 130
Magnesium	16		5.00	20.7		mg/L		95	70 - 130

Method: 200.7 - Metals (ICP) (Continued)

Lab Sample ID: 810-17720-1 MS
Matrix: Drinking Water
Analysis Batch: 15167

Client Sample ID: Well B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	<0.020		5.00	4.98		mg/L		100	70 - 130
Calcium	110		5.00	113	4	mg/L		72	70 - 130

Lab Sample ID: 810-17720-1 MSD
Matrix: Drinking Water
Analysis Batch: 15167

Client Sample ID: Well B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	6.7		5.00	11.9		mg/L		105	70 - 130	0	20
Silica	9.5		5.00	14.5		mg/L		100	70 - 130	0	20
Potassium	2.2		5.00	7.49		mg/L		106	70 - 130	0	20
Magnesium	16		5.00	20.6		mg/L		94	70 - 130	0	20
Iron	<0.020		5.00	4.97		mg/L		99	70 - 130	0	20
Calcium	110		5.00	113	4	mg/L		70	70 - 130	0	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 810-15088/11
Matrix: Drinking Water
Analysis Batch: 15088

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0		ug/L			03/17/22 15:21	1
Arsenic	<1.0		1.0		ug/L			03/17/22 15:21	1
Barium	<2.0		2.0		ug/L			03/17/22 15:21	1
Beryllium	<0.30		0.30		ug/L			03/17/22 15:21	1
Cadmium	<0.50		0.50		ug/L			03/17/22 15:21	1
Chromium	<0.90		0.90		ug/L			03/17/22 15:21	1
Copper	<1.0		1.0		ug/L			03/17/22 15:21	1
Lead	<0.50		0.50		ug/L			03/17/22 15:21	1
Manganese	<2.0		2.0		ug/L			03/17/22 15:21	1
Nickel	<1.0		1.0		ug/L			03/17/22 15:21	1
Selenium	<2.0		2.0		ug/L			03/17/22 15:21	1
Silver	<0.50		0.50		ug/L			03/17/22 15:21	1
Thallium	<0.30		0.30		ug/L			03/17/22 15:21	1
Zinc	<5.0		5.0		ug/L			03/17/22 15:21	1

Lab Sample ID: LCS 810-15088/15
Matrix: Drinking Water
Analysis Batch: 15088

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	50.0	52.7		ug/L		105	85 - 115
Antimony	50.0	48.4		ug/L		97	85 - 115
Arsenic	50.0	48.9		ug/L		98	85 - 115
Barium	50.0	47.7		ug/L		95	85 - 115
Beryllium	50.0	49.4		ug/L		99	85 - 115
Boron	50.0	49.2		ug/L		98	85 - 115
Cadmium	50.0	48.5		ug/L		97	85 - 115
Chromium	50.0	48.4		ug/L		97	85 - 115

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 810-15088/15
Matrix: Drinking Water
Analysis Batch: 15088

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	50.0	48.5		ug/L		97	85 - 115
Copper	50.0	48.5		ug/L		97	85 - 115
Lead	50.0	51.0		ug/L		102	85 - 115
Lithium	50.0	50.1		ug/L		100	85 - 115
Manganese	50.0	48.6		ug/L		97	85 - 115
Molybdenum	50.0	48.4		ug/L		97	85 - 115
Nickel	50.0	49.3		ug/L		99	85 - 115
Selenium	50.0	48.2		ug/L		96	85 - 115
Silver	50.0	47.8		ug/L		96	85 - 115
Strontium	50.0	52.6		ug/L		105	85 - 115
Thallium	50.0	48.2		ug/L		96	85 - 115
Thorium	50.0	47.2		ug/L		94	85 - 115
Tin	50.0	48.5		ug/L		97	85 - 115
Titanium	50.0	48.8		ug/L		98	85 - 115
Uranium	50.0	48.4		ug/L		97	85 - 115
Vanadium	50.0	48.3		ug/L		97	85 - 115
Zinc	50.0	48.8		ug/L		98	85 - 115

Lab Sample ID: LLCS 810-15088/13
Matrix: Drinking Water
Analysis Batch: 15088

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.00	0.966	J	ug/L		97	50 - 150
Arsenic	1.00	1.06		ug/L		106	50 - 150
Barium	1.00	0.889	J	ug/L		89	50 - 150
Cobalt	1.00	0.933	J	ug/L		93	50 - 150
Copper	1.00	0.957	J	ug/L		96	50 - 150
Lithium	1.00	1.04	J	ug/L		104	50 - 150
Manganese	1.00	0.970	J	ug/L		97	50 - 150
Molybdenum	1.00	0.976	J	ug/L		98	50 - 150
Nickel	1.00	0.998	J	ug/L		100	50 - 150
Selenium	1.00	<1.6		ug/L		113	50 - 150
Strontium	1.00	1.04	J	ug/L		104	50 - 150
Thorium	1.00	0.889	J	ug/L		89	50 - 150
Tin	1.00	0.935	J	ug/L		94	50 - 150
Titanium	1.00	0.920	J	ug/L		92	50 - 150
Uranium	1.00	0.916	J	ug/L		92	50 - 150
Vanadium	1.00	0.840	J	ug/L		84	50 - 150
Zinc	1.00	<2.3		ug/L		106	50 - 150

Lab Sample ID: LLCS 810-15088/20
Matrix: Drinking Water
Analysis Batch: 15088

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.300	<1.5		ug/L		118	50 - 150
Antimony	0.300	0.288	J	ug/L		96	50 - 150
Arsenic	0.300	<0.89		ug/L		120	50 - 150

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LLCS 810-15088/20
Matrix: Drinking Water
Analysis Batch: 15088

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.300	0.334	J	ug/L		111	50 - 150
Beryllium	0.300	0.349		ug/L		116	50 - 150
Cadmium	0.300	0.320	J	ug/L		107	50 - 150
Chromium	0.300	<0.31		ug/L		94	50 - 150
Cobalt	0.300	0.319	J	ug/L		106	50 - 150
Copper	0.300	<0.55		ug/L		112	50 - 150
Lead	0.300	0.344	J	ug/L		115	50 - 150
Manganese	0.300	0.357	J	ug/L		119	50 - 150
Molybdenum	0.300	0.298	J	ug/L		99	50 - 150
Nickel	0.300	0.318	J	ug/L		106	50 - 150
Selenium	0.300	<1.6		ug/L		135	50 - 150
Silver	0.300	0.304	J	ug/L		101	50 - 150
Strontium	0.300	0.372	J	ug/L		124	50 - 150
Thallium	0.300	0.329		ug/L		110	50 - 150
Thorium	0.300	0.261	J	ug/L		87	50 - 150
Tin	0.300	0.310	J	ug/L		103	50 - 150
Titanium	0.300	<0.70		ug/L		93	50 - 150
Uranium	0.300	0.319	J	ug/L		106	50 - 150
Vanadium	0.300	0.332	J	ug/L		111	50 - 150
Zinc	0.300	<2.3		ug/L		127	50 - 150

Lab Sample ID: LLCS 810-15088/22
Matrix: Drinking Water
Analysis Batch: 15088

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	5.00	5.71		ug/L		114	50 - 150
Titanium	5.00	4.93	J	ug/L		99	50 - 150
Zinc	5.00	5.01		ug/L		100	50 - 150

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 810-15129/1-A
Matrix: Drinking Water
Analysis Batch: 15170

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15129

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.10		0.10		ug/L		03/18/22 11:54	03/18/22 15:40	1

Lab Sample ID: LCS 810-15129/3-A
Matrix: Drinking Water
Analysis Batch: 15170

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15129

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.00	1.09		ug/L		109	85 - 115

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LLCS 810-15129/2-A
Matrix: Drinking Water
Analysis Batch: 15170

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15129

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.100	0.103		ug/L		103	50 - 150

Method: 150.1 - pH (Electrometric)

Lab Sample ID: LCSSRM 810-14683/4
Matrix: Drinking Water
Analysis Batch: 14683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
pH	9.00	9.1		SU		100.9	98.9 - 101.1

Lab Sample ID: LCSSRM 810-14683/9
Matrix: Drinking Water
Analysis Batch: 14683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
pH	9.00	9.0		SU		100.1	98.9 - 101.1

Method: 180.1 - Turbidity, Nephelometric

Lab Sample ID: MB 810-14701/4
Matrix: Drinking Water
Analysis Batch: 14701

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	<0.10		0.10		NTU			03/11/22 15:56	1

Lab Sample ID: LLCS 810-14701/3
Matrix: Drinking Water
Analysis Batch: 14701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Turbidity	0.116	0.10		NTU		99	50 - 150

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 810-15099/30-A
Matrix: Drinking Water
Analysis Batch: 15128

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15099

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0050		0.0050		mg/L		03/18/22 06:45	03/18/22 11:05	1

Lab Sample ID: MB 810-15099/4-A
Matrix: Drinking Water
Analysis Batch: 15128

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15099

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0050		0.0050		mg/L		03/18/22 06:45	03/18/22 10:37	1

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: LCS 810-15099/29-A
Matrix: Drinking Water
Analysis Batch: 15128

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15099

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.100	0.100		mg/L		100	90 - 110

Lab Sample ID: LLCS 810-15099/3-A
Matrix: Drinking Water
Analysis Batch: 15128

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15099

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.00500	0.00510		mg/L		102	80 - 120

Lab Sample ID: MB 810-15406/4-A
Matrix: Drinking Water
Analysis Batch: 15441

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15406

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0050		0.0050		mg/L		03/23/22 10:14	03/23/22 13:11	1

Lab Sample ID: LCS 810-15406/2-A
Matrix: Drinking Water
Analysis Batch: 15441

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15406

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.100	0.0967		mg/L		97	90 - 110

Lab Sample ID: LLCS 810-15406/3-A
Matrix: Drinking Water
Analysis Batch: 15441

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15406

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.00500	0.00470	J	mg/L		94	80 - 120

Lab Sample ID: 810-17720-2 MS
Matrix: Drinking Water
Analysis Batch: 15441

Client Sample ID: Spring
Prep Type: Total/NA
Prep Batch: 15406

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	<0.0050		0.100	0.0968		mg/L		97	90 - 110

Lab Sample ID: 810-17720-2 MSD
Matrix: Drinking Water
Analysis Batch: 15441

Client Sample ID: Spring
Prep Type: Total/NA
Prep Batch: 15406

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	<0.0050		0.100	0.0978		mg/L		98	90 - 110	1	20

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 810-14893/19
Matrix: Drinking Water
Analysis Batch: 14893

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.010		0.010		mg/L			03/15/22 09:41	1

Lab Sample ID: LCS 810-14893/15
Matrix: Drinking Water
Analysis Batch: 14893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrite as N	0.200	0.205		mg/L		102	90 - 110

Lab Sample ID: LLCS 810-14893/18
Matrix: Drinking Water
Analysis Batch: 14893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrite as N	0.0100	0.00970	J	mg/L		97	50 - 150

Lab Sample ID: MB 810-14894/20
Matrix: Drinking Water
Analysis Batch: 14894

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	<0.10		0.10		mg/L			03/15/22 14:10	1

Lab Sample ID: LCS 810-14894/16
Matrix: Drinking Water
Analysis Batch: 14894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N	4.00	4.15		mg/L		104	90 - 110

Lab Sample ID: LLCS 810-14894/19
Matrix: Drinking Water
Analysis Batch: 14894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N	0.100	0.0834	J	mg/L		83	50 - 150

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 410-236798/28
Matrix: Water
Analysis Batch: 236798

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.020		0.020		mg/L			03/23/22 10:00	1

Method: 420.4 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: LCS 410-236798/26
Matrix: Water
Analysis Batch: 236798

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Phenols, Total			0.250	0.244		mg/L		97	90 - 110		

Lab Sample ID: LCSD 410-236798/27
Matrix: Water
Analysis Batch: 236798

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenols, Total			0.250	0.248		mg/L		99	90 - 110	2	6

Method: 4500 Cl F Amine - Chloramines

Lab Sample ID: MB 810-14705/1
Matrix: Drinking Water
Analysis Batch: 14705

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Monochloramine	<0.10		0.10		mg/L			03/11/22 16:25	1
Dichloramine	<0.10		0.10		mg/L			03/11/22 16:25	1
Nitrogen trichloride	<0.20		0.20		mg/L			03/11/22 16:25	1
Chloramines, Total	<0.20		0.20		mg/L			03/11/22 16:25	1

Lab Sample ID: MB 810-14705/4
Matrix: Drinking Water
Analysis Batch: 14705

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Monochloramine	<0.10		0.10		mg/L			03/11/22 16:34	1
Dichloramine	<0.10		0.10		mg/L			03/11/22 16:34	1
Nitrogen trichloride	<0.20		0.20		mg/L			03/11/22 16:34	1
Chloramines, Total	<0.20		0.20		mg/L			03/11/22 16:34	1

Method: 4500 Cl G - Chlorine, Free

Lab Sample ID: MB 810-14760/6
Matrix: Drinking Water
Analysis Batch: 14760

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Free Chlorine	<0.50		0.50		mg/L			03/11/22 18:17	1

Lab Sample ID: LCS 810-14760/5
Matrix: Drinking Water
Analysis Batch: 14760

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Free Chlorine			1.00	0.982		mg/L		98	85 - 113		

Method: 4500 Cl G - Chlorine, Free (Continued)

Lab Sample ID: LLCS 810-14760/4
Matrix: Drinking Water
Analysis Batch: 14760

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Free Chlorine			0.0502	0.0500	J	mg/L		100	50 - 150		

Lab Sample ID: 810-17720-1 DU
Matrix: Drinking Water
Analysis Batch: 14760

Client Sample ID: Well B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Free Chlorine	<0.50	HF		<0.50		mg/L				NC	20

Method: 4500 ClO2 D - Chlorine Dioxide

Lab Sample ID: MB 810-14865/1
Matrix: Drinking Water
Analysis Batch: 14865

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		RL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorine dioxide, Residual	<0.24		0.24			mg/L			03/11/22 17:10	1

Lab Sample ID: MB 810-14865/6
Matrix: Drinking Water
Analysis Batch: 14865

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		RL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorine dioxide, Residual	<0.24		0.24			mg/L			03/11/22 17:10	1

Lab Sample ID: LCS 810-14865/2
Matrix: Drinking Water
Analysis Batch: 14865

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chlorine dioxide, Residual			0.00200	<0.24		mg/L		0			

Method: 5540C - 2011 - Methlyene Blue Active Substant (MBAS)

Lab Sample ID: MB 410-235424/3
Matrix: Water
Analysis Batch: 235424

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MBAS	<0.12		0.12		mg/L LAS MW320			03/19/22 03:58	1

Lab Sample ID: LCS 410-235424/5
Matrix: Water
Analysis Batch: 235424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
MBAS			1.00	0.966		mg/L LAS MW320		97	85 - 102		

Method: 5540C - 2011 - Methlyene Blue Active Substant (MBAS) (Continued)

Lab Sample ID: LCSD 410-235424/6
Matrix: Water
Analysis Batch: 235424

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
MBAS			1.00	0.984		mg/L LAS MW320		98	85 - 102	2	6

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 810-14691/10
Matrix: Drinking Water
Analysis Batch: 14691

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Color, Apparent	<5.0		5.0		Color Units			03/11/22 15:18	1

Lab Sample ID: LCSSRM 810-14691/11
Matrix: Drinking Water
Analysis Batch: 14691

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
Color, Apparent			20.0	20.0		Color Units		100.0	100. - 100. 0 0		

Method: SM 2150B - Odor

Lab Sample ID: MB 810-14758/1
Matrix: Drinking Water
Analysis Batch: 14758

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Odor	<1.0		1.0		T.O.N.			03/11/22 14:48	1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 810-15176/9
Matrix: Drinking Water
Analysis Batch: 15176

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Bicarbonate	<1.0		1.0		mg/L			03/18/22 18:33	1
Alkalinity, Total	<1.0		1.0		mg/L			03/18/22 18:33	1

Lab Sample ID: LCS 810-15176/7
Matrix: Drinking Water
Analysis Batch: 15176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity, Total			100	90.2		mg/L		90	78 - 114		

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LLCS 810-15176/8
Matrix: Drinking Water
Analysis Batch: 15176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	1.00	<1.0		mg/L		56	50 - 150

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: LCS 810-15021/4
Matrix: Drinking Water
Analysis Batch: 15021

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Specific Conductance	998	986		uS/cm		99	90 - 110

Lab Sample ID: LLCS 810-15021/3
Matrix: Drinking Water
Analysis Batch: 15021

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Specific Conductance	9.91	11.2		uS/cm		113	80 - 120

Lab Sample ID: 810-17720-1 DU
Matrix: Drinking Water
Analysis Batch: 15021

Client Sample ID: Well B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	690		682		uS/cm		0.8	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 810-15041/1
Matrix: Drinking Water
Analysis Batch: 15041

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			03/17/22 10:14	1

Lab Sample ID: LCS 810-15041/2
Matrix: Drinking Water
Analysis Batch: 15041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	986		mg/L		99	85 - 115

Lab Sample ID: 810-17720-1 DU
Matrix: Drinking Water
Analysis Batch: 15041

Client Sample ID: Well B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	380		378		mg/L		0.5	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 810-14988/1
Matrix: Drinking Water
Analysis Batch: 14988

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<10		10		mg/L			03/16/22 14:06	1

Lab Sample ID: LCS 810-14988/2
Matrix: Drinking Water
Analysis Batch: 14988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			100	90.0		mg/L		90	75 - 105		

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 810-15119/6
Matrix: Drinking Water
Analysis Batch: 15119

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.050		0.050		mg/L			03/18/22 07:16	1

Lab Sample ID: LCS 810-15119/4
Matrix: Drinking Water
Analysis Batch: 15119

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			2.00	2.19		mg/L		110	90 - 110		

Lab Sample ID: LLCS 810-15119/5
Matrix: Drinking Water
Analysis Batch: 15119

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			0.0500	0.0300	J	mg/L		60	50 - 150		

Method: 7110B - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 810-15122/1-A
Matrix: Drinking Water
Analysis Batch: 16607

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15122

Analyte	MB Result	MB Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	-0.6500	U			3.00	1.08	pCi/L	03/18/22 10:21	04/08/22 08:36	1
Gross Beta	-0.8800	U			4.00	1.77	pCi/L	03/18/22 10:21	04/08/22 08:36	1

Lab Sample ID: LCS 810-15122/2-A
Matrix: Drinking Water
Analysis Batch: 16607

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15122

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Gross Alpha			30.4	31.28			3.00	1.07	pCi/L	103	80 - 120		

Method: 7110B - Gross Alpha and Gross Beta Radioactivity (Continued)

Lab Sample ID: LCS 810-15122/2-A
Matrix: Drinking Water
Analysis Batch: 16607

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15122

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Beta	39.0	32.14			4.00	2.14	pCi/L	82	80 - 120

Method: SM7500 Ra B - Radium-226

Lab Sample ID: MB 810-15102/1-A
Matrix: Drinking Water
Analysis Batch: 15877

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15102

Analyte	MB Result	MB Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Ra-226	0.0000	U			1.00	0.150	pCi/L	03/18/22 07:56	03/29/22 09:47	1

Lab Sample ID: LCS 810-15102/2-A
Matrix: Drinking Water
Analysis Batch: 15877

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15102

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Ra-226	9.89	8.190	*		1.00	0.150	pCi/L	83	90 - 110

Method: SM7500 Ra D - Radium-228

Lab Sample ID: MB 810-15101/1-A
Matrix: Drinking Water
Analysis Batch: 17228

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15101

Analyte	MB Result	MB Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Ra-228	-0.1000	U			1.00	0.480	pCi/L	03/18/22 07:52	04/14/22 11:06	1

Method: SM7500_Rn_B - Radon

Lab Sample ID: MB 810-15451/13
Matrix: Drinking Water
Analysis Batch: 15451

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radon 222	-3.680	U			12.0	7.30	pCi/L		03/11/22 15:34	1

Lab Sample ID: MB 810-15451/17
Matrix: Drinking Water
Analysis Batch: 15451

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	Count Uncert. (σ+/-)	Total Uncert. (σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radon 222	-1.820	U			12.0	8.42	pCi/L		03/12/22 10:32	1

Method: SM7500_Rn_B - Radon (Continued)

Lab Sample ID: LCS 810-15451/12
Matrix: Drinking Water
Analysis Batch: 15451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radon 222	10800	10420			12.0	7.10	pCi/L	96	90 - 110

Lab Sample ID: LCS 810-15451/16
Matrix: Drinking Water
Analysis Batch: 15451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radon 222	10800	10760			12.0	7.10	pCi/L	99	90 - 110

Lab Sample ID: SFB 810-15451/14
Matrix: Drinking Water
Analysis Batch: 15451

Client Sample ID: Second Source Fortified Blank
Prep Type: Total/NA

Analyte	Spike Added	SFB Result	SFB Qual	Total Uncert. (σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radon 222	8680	9049			12.0	7.10	pCi/L	104	90 - 110

Lab Sample ID: SFB 810-15451/15
Matrix: Drinking Water
Analysis Batch: 15451

Client Sample ID: Second Source Fortified Blank
Prep Type: Total/NA

Analyte	Spike Added	SFB Result	SFB Qual	Total Uncert. (σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radon 222	8680	9005			12.0	7.10	pCi/L	104	90 - 110

Method: SimPlate - Heterotrophic Plate Count (HPC)

Lab Sample ID: MB 810-14664/5
Matrix: Drinking Water
Analysis Batch: 14664

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heterotrophic Plate Count	<2.0		2.0		MPN/mL			03/11/22 11:44	1

Lab Sample ID: POS 810-14664/4
Matrix: Drinking Water
Analysis Batch: 14664

Client Sample ID: Positive Control
Prep Type: Total/NA

Analyte	POS Result	POS Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heterotrophic Plate Count	>738		2.0		MPN/mL			03/11/22 11:44	1

GC/MS VOA

Analysis Batch: 14993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	524.2	
810-17720-2	Spring	Total/NA	Drinking Water	524.2	
MB 810-14993/5	Method Blank	Total/NA	Drinking Water	524.2	

Analysis Batch: 15073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	524.2	
810-17720-2	Spring	Total/NA	Drinking Water	524.2	
MB 810-15073/5	Method Blank	Total/NA	Drinking Water	524.2	

Analysis Batch: 15123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	524.2	
810-17720-2	Spring	Total/NA	Drinking Water	524.2	

GC/MS Semi VOA

Prep Batch: 14823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	548.1	
810-17720-2	Spring	Total/NA	Drinking Water	548.1	
MB 810-14823/1-A	Method Blank	Total/NA	Drinking Water	548.1	
LCS 810-14823/2-A	Lab Control Sample	Total/NA	Drinking Water	548.1	
LLCS 810-14823/3-A	Lab Control Sample	Total/NA	Drinking Water	548.1	

Prep Batch: 15033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	525.2	
MB 810-15033/1-A	Method Blank	Total/NA	Drinking Water	525.2	
LCS 810-15033/3-A	Lab Control Sample	Total/NA	Drinking Water	525.2	
LLCS 810-15033/2-A	Lab Control Sample	Total/NA	Drinking Water	525.2	

Analysis Batch: 15042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	548.1	14823
810-17720-2	Spring	Total/NA	Drinking Water	548.1	14823
MB 810-14823/1-A	Method Blank	Total/NA	Drinking Water	548.1	14823
LCS 810-14823/2-A	Lab Control Sample	Total/NA	Drinking Water	548.1	14823
LLCS 810-14823/3-A	Lab Control Sample	Total/NA	Drinking Water	548.1	14823

Analysis Batch: 15085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	525.2	15033
MB 810-15033/1-A	Method Blank	Total/NA	Drinking Water	525.2	15033
LCS 810-15033/3-A	Lab Control Sample	Total/NA	Drinking Water	525.2	15033
LLCS 810-15033/2-A	Lab Control Sample	Total/NA	Drinking Water	525.2	15033

Prep Batch: 15115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-2	Spring	Total/NA	Drinking Water	525.2	
MB 810-15115/1-A	Method Blank	Total/NA	Drinking Water	525.2	

GC/MS Semi VOA (Continued)

Prep Batch: 15115 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 810-15115/3-A	Lab Control Sample	Total/NA	Drinking Water	525.2	
LLCS 810-15115/2-A	Lab Control Sample	Total/NA	Drinking Water	525.2	

Prep Batch: 15223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	522	
810-17720-2	Spring	Total/NA	Drinking Water	522	
MBL 810-15223/1-A	Method Blank	Total/NA	Drinking Water	522	
LLCS 810-15223/2-A	Lab Control Sample	Total/NA	Drinking Water	522	

Analysis Batch: 15245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-2	Spring	Total/NA	Drinking Water	525.2	15115
MB 810-15115/1-A	Method Blank	Total/NA	Drinking Water	525.2	15115
LCS 810-15115/3-A	Lab Control Sample	Total/NA	Drinking Water	525.2	15115
LLCS 810-15115/2-A	Lab Control Sample	Total/NA	Drinking Water	525.2	15115

Analysis Batch: 15313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	522	15223
810-17720-2	Spring	Total/NA	Drinking Water	522	15223
MBL 810-15223/1-A	Method Blank	Total/NA	Drinking Water	522	15223
LLCS 810-15223/2-A	Lab Control Sample	Total/NA	Drinking Water	522	15223

GC Semi VOA

Prep Batch: 14862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	504.1	
810-17720-2	Spring	Total/NA	Drinking Water	504.1	
MB 810-14862/24-A	Method Blank	Total/NA	Drinking Water	504.1	
LCS 810-14862/30-A	Lab Control Sample	Total/NA	Drinking Water	504.1	
LLCS 810-14862/25-A	Lab Control Sample	Total/NA	Drinking Water	504.1	

Analysis Batch: 14919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	504.1	14862
810-17720-2	Spring	Total/NA	Drinking Water	504.1	14862
MB 810-14862/24-A	Method Blank	Total/NA	Drinking Water	504.1	14862
LCS 810-14862/30-A	Lab Control Sample	Total/NA	Drinking Water	504.1	14862
LLCS 810-14862/25-A	Lab Control Sample	Total/NA	Drinking Water	504.1	14862

Prep Batch: 14969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	505	
810-17720-2	Spring	Total/NA	Drinking Water	505	
MB 810-14969/24-A	Method Blank	Total/NA	Drinking Water	505	
LLCS 810-14969/31-A	Lab Control Sample	Total/NA	Drinking Water	505	
LLCS 810-14969/32-A	Lab Control Sample	Total/NA	Drinking Water	505	
810-17720-1 MS	Well B	Total/NA	Drinking Water	505	
810-17720-2 MS	Spring	Total/NA	Drinking Water	505	

GC Semi VOA (Continued)

Prep Batch: 14969 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-2 MSD	Spring	Total/NA	Drinking Water	505	

Analysis Batch: 14999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	505	14969
810-17720-2	Spring	Total/NA	Drinking Water	505	14969
MB 810-14969/24-A	Method Blank	Total/NA	Drinking Water	505	14969
LLCS 810-14969/31-A	Lab Control Sample	Total/NA	Drinking Water	505	14969
LLCS 810-14969/32-A	Lab Control Sample	Total/NA	Drinking Water	505	14969
810-17720-1 MS	Well B	Total/NA	Drinking Water	505	14969
810-17720-2 MS	Spring	Total/NA	Drinking Water	505	14969
810-17720-2 MSD	Spring	Total/NA	Drinking Water	505	14969

Prep Batch: 15027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	552.2	
810-17720-2	Spring	Total/NA	Drinking Water	552.2	
MB 810-15027/1-A	Method Blank	Total/NA	Drinking Water	552.2	

Analysis Batch: 15075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	552.2	15027
810-17720-2	Spring	Total/NA	Drinking Water	552.2	15027
MB 810-15027/1-A	Method Blank	Total/NA	Drinking Water	552.2	15027

Analysis Batch: 15247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	552.2 THAA	
810-17720-2	Spring	Total/NA	Drinking Water	552.2 THAA	

Prep Batch: 15291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	515.3	
MB 810-15291/1-B	Method Blank	Total/NA	Drinking Water	515.3	
LLCS 810-15291/2-B	Lab Control Sample	Total/NA	Drinking Water	515.3	

Cleanup Batch: 15348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	Aliquot	15291
MB 810-15291/1-B	Method Blank	Total/NA	Drinking Water	Aliquot	15291
LLCS 810-15291/2-B	Lab Control Sample	Total/NA	Drinking Water	Aliquot	15291

Analysis Batch: 15378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	515.3	15348
MB 810-15291/1-B	Method Blank	Total/NA	Drinking Water	515.3	15348
LLCS 810-15291/2-B	Lab Control Sample	Total/NA	Drinking Water	515.3	15348

Prep Batch: 15410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	551,1	

GC Semi VOA (Continued)

Prep Batch: 15410 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-2	Spring	Total/NA	Drinking Water	551,1	
MB 810-15410/1-B	Method Blank	Total/NA	Drinking Water	551,1	
LLCS 810-15410/2-B	Lab Control Sample	Total/NA	Drinking Water	551,1	

Cleanup Batch: 15470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	Aliquot	15410
810-17720-2	Spring	Total/NA	Drinking Water	Aliquot	15410
MB 810-15410/1-B	Method Blank	Total/NA	Drinking Water	Aliquot	15410
LLCS 810-15410/2-B	Lab Control Sample	Total/NA	Drinking Water	Aliquot	15410

Analysis Batch: 15474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	551.1	15470
810-17720-2	Spring	Total/NA	Drinking Water	551.1	15470
MB 810-15410/1-B	Method Blank	Total/NA	Drinking Water	551.1	15470
LLCS 810-15410/2-B	Lab Control Sample	Total/NA	Drinking Water	551.1	15470

Prep Batch: 15484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-2	Spring	Total/NA	Drinking Water	515.3	
MB 810-15484/1-B	Method Blank	Total/NA	Drinking Water	515.3	
LLCS 810-15484/2-B	Lab Control Sample	Total/NA	Drinking Water	515.3	

Cleanup Batch: 15506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-2	Spring	Total/NA	Drinking Water	Aliquot	15484
MB 810-15484/1-B	Method Blank	Total/NA	Drinking Water	Aliquot	15484
LLCS 810-15484/2-B	Lab Control Sample	Total/NA	Drinking Water	Aliquot	15484

Analysis Batch: 15555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-2	Spring	Total/NA	Drinking Water	515.3	15506
MB 810-15484/1-B	Method Blank	Total/NA	Drinking Water	515.3	15506
LLCS 810-15484/2-B	Lab Control Sample	Total/NA	Drinking Water	515.3	15506

HPLC/IC

Filtration Batch: 14840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Dissolved	Drinking Water	Filtration	
810-17720-2	Spring	Dissolved	Drinking Water	Filtration	
MB 810-14840/8-A	Method Blank	Dissolved	Drinking Water	Filtration	
LCS 810-14840/10-A	Lab Control Sample	Dissolved	Drinking Water	Filtration	
LLCS 810-14840/9-A	Lab Control Sample	Dissolved	Drinking Water	Filtration	
810-17720-1 DU	Well B	Dissolved	Drinking Water	Filtration	

Analysis Batch: 14891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Dissolved	Drinking Water	547	14840
810-17720-2	Spring	Dissolved	Drinking Water	547	14840

HPLC/IC (Continued)

Analysis Batch: 14891 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 810-14840/8-A	Method Blank	Dissolved	Drinking Water	547	14840
LCS 810-14840/10-A	Lab Control Sample	Dissolved	Drinking Water	547	14840
LLCS 810-14840/9-A	Lab Control Sample	Dissolved	Drinking Water	547	14840
810-17720-1 DU	Well B	Dissolved	Drinking Water	547	14840

Analysis Batch: 14912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	300.0	
810-17720-2	Spring	Total/NA	Drinking Water	300.0	
MB 810-14912/4	Method Blank	Total/NA	Drinking Water	300.0	
LCS 810-14912/5	Lab Control Sample	Total/NA	Drinking Water	300.0	

Prep Batch: 14934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	549.2	
810-17720-2	Spring	Total/NA	Drinking Water	549.2	
MB 810-14934/1-A	Method Blank	Total/NA	Drinking Water	549.2	
LCS 810-14934/3-A	Lab Control Sample	Total/NA	Drinking Water	549.2	
LLCS 810-14934/2-A	Lab Control Sample	Total/NA	Drinking Water	549.2	
810-17720-1 MS	Well B	Total/NA	Drinking Water	549.2	

Filtration Batch: 14952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Dissolved	Drinking Water	Filtration	
810-17720-2	Spring	Dissolved	Drinking Water	Filtration	
MBL 810-14952/1-A	Method Blank	Dissolved	Drinking Water	Filtration	

Analysis Batch: 14976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	300.0	
810-17720-2	Spring	Total/NA	Drinking Water	300.0	
MB 810-14976/4	Method Blank	Total/NA	Drinking Water	300.0	
LCS 810-14976/5	Lab Control Sample	Total/NA	Drinking Water	300.0	
810-17720-1 MS	Well B	Total/NA	Drinking Water	300.0	
810-17720-1 MSD	Well B	Total/NA	Drinking Water	300.0	

Analysis Batch: 14989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	317	
810-17720-2	Spring	Total/NA	Drinking Water	317	
MBL 810-14989/10	Method Blank	Total/NA	Drinking Water	317	
LCS 810-14989/11	Lab Control Sample	Total/NA	Drinking Water	317	

Analysis Batch: 15067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Dissolved	Drinking Water	531.2	14952
810-17720-2	Spring	Dissolved	Drinking Water	531.2	14952
MBL 810-14952/1-A	Method Blank	Dissolved	Drinking Water	531.2	14952

HPLC/IC

Analysis Batch: 15152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	549.2	14934
810-17720-2	Spring	Total/NA	Drinking Water	549.2	14934
MB 810-14934/1-A	Method Blank	Total/NA	Drinking Water	549.2	14934
LCS 810-14934/3-A	Lab Control Sample	Total/NA	Drinking Water	549.2	14934
LLCS 810-14934/2-A	Lab Control Sample	Total/NA	Drinking Water	549.2	14934
810-17720-1 MS	Well B	Total/NA	Drinking Water	549.2	14934

LCMS

Prep Batch: 14933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	533	
810-17720-2	Spring	Total/NA	Drinking Water	533	
MBL 810-14933/1-A	Method Blank	Total/NA	Drinking Water	533	
LLCS 810-14933/2-A	Lab Control Sample	Total/NA	Drinking Water	533	

Prep Batch: 14935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	537.1 DW	
MBL 810-14935/1-A	Method Blank	Total/NA	Drinking Water	537.1 DW	
LLCS 810-14935/2-A	Lab Control Sample	Total/NA	Drinking Water	537.1 DW	

Analysis Batch: 14964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	331.0	
810-17720-2	Spring	Total/NA	Drinking Water	331.0	
MBL 810-14964/12	Method Blank	Total/NA	Drinking Water	331.0	
LLCS 810-14964/14	Lab Control Sample	Total/NA	Drinking Water	331.0	
810-17720-2 LMS	Spring	Total/NA	Drinking Water	331.0	
810-17720-2 LMSD	Spring	Total/NA	Drinking Water	331.0	

Analysis Batch: 14981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	533	14933
810-17720-2	Spring	Total/NA	Drinking Water	533	14933
MBL 810-14933/1-A	Method Blank	Total/NA	Drinking Water	533	14933
LLCS 810-14933/2-A	Lab Control Sample	Total/NA	Drinking Water	533	14933

Analysis Batch: 15034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	537.1	14935
MBL 810-14935/1-A	Method Blank	Total/NA	Drinking Water	537.1	14935
LLCS 810-14935/2-A	Lab Control Sample	Total/NA	Drinking Water	537.1	14935

Specialty Organics

Prep Batch: 236037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	1613B	
810-17720-2	Spring	Total/NA	Drinking Water	1613B	
MB 410-236037/1-A	Method Blank	Total/NA	Drinking Water	1613B	
LCS 410-236037/2-A	Lab Control Sample	Total/NA	Drinking Water	1613B	

Specialty Organics

Analysis Batch: 236375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	1613B	236037
810-17720-2	Spring	Total/NA	Drinking Water	1613B	236037
MB 410-236037/1-A	Method Blank	Total/NA	Drinking Water	1613B	236037
LCS 410-236037/2-A	Lab Control Sample	Total/NA	Drinking Water	1613B	236037

Metals

Analysis Batch: 15088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	200.8	
810-17720-2	Spring	Total/NA	Drinking Water	200.8	
MB 810-15088/11	Method Blank	Total/NA	Drinking Water	200.8	
LCS 810-15088/15	Lab Control Sample	Total/NA	Drinking Water	200.8	
LLCS 810-15088/13	Lab Control Sample	Total/NA	Drinking Water	200.8	
LLCS 810-15088/20	Lab Control Sample	Total/NA	Drinking Water	200.8	
LLCS 810-15088/22	Lab Control Sample	Total/NA	Drinking Water	200.8	

Prep Batch: 15129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	245.1	
810-17720-2	Spring	Total/NA	Drinking Water	245.1	
MB 810-15129/1-A	Method Blank	Total/NA	Drinking Water	245.1	
LCS 810-15129/3-A	Lab Control Sample	Total/NA	Drinking Water	245.1	
LLCS 810-15129/2-A	Lab Control Sample	Total/NA	Drinking Water	245.1	

Analysis Batch: 15167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	200.7	
810-17720-2	Spring	Total/NA	Drinking Water	200.7	
MB 810-15167/12	Method Blank	Total/NA	Drinking Water	200.7	
MB 810-15167/44	Method Blank	Total/NA	Drinking Water	200.7	
LCS 810-15167/15	Lab Control Sample	Total/NA	Drinking Water	200.7	
LLCS 810-15167/11	Lab Control Sample	Total/NA	Drinking Water	200.7	
LLCS 810-15167/13	Lab Control Sample	Total/NA	Drinking Water	200.7	
810-17720-1 MS	Well B	Total/NA	Drinking Water	200.7	
810-17720-1 MSD	Well B	Total/NA	Drinking Water	200.7	

Analysis Batch: 15170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	245.1	15129
810-17720-2	Spring	Total/NA	Drinking Water	245.1	15129
MB 810-15129/1-A	Method Blank	Total/NA	Drinking Water	245.1	15129
LCS 810-15129/3-A	Lab Control Sample	Total/NA	Drinking Water	245.1	15129
LLCS 810-15129/2-A	Lab Control Sample	Total/NA	Drinking Water	245.1	15129

Analysis Batch: 15220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	SM 2340B	
810-17720-2	Spring	Total/NA	Drinking Water	SM 2340B	

General Chemistry

Analysis Batch: 14683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	150.1	
810-17720-2	Spring	Total/NA	Drinking Water	150.1	
LCSSRM 810-14683/4	Lab Control Sample	Total/NA	Drinking Water	150.1	
LCSSRM 810-14683/9	Lab Control Sample	Total/NA	Drinking Water	150.1	

Analysis Batch: 14691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	SM 2120B	
810-17720-2	Spring	Total/NA	Drinking Water	SM 2120B	
MB 810-14691/10	Method Blank	Total/NA	Drinking Water	SM 2120B	
LCSSRM 810-14691/11	Lab Control Sample	Total/NA	Drinking Water	SM 2120B	

Analysis Batch: 14701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	180.1	
810-17720-2	Spring	Total/NA	Drinking Water	180.1	
MB 810-14701/4	Method Blank	Total/NA	Drinking Water	180.1	
LLCS 810-14701/3	Lab Control Sample	Total/NA	Drinking Water	180.1	

Analysis Batch: 14705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	4500 Cl F Amine	
810-17720-2	Spring	Total/NA	Drinking Water	4500 Cl F Amine	
MB 810-14705/1	Method Blank	Total/NA	Drinking Water	4500 Cl F Amine	
MB 810-14705/4	Method Blank	Total/NA	Drinking Water	4500 Cl F Amine	

Analysis Batch: 14758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	SM 2150B	
810-17720-2	Spring	Total/NA	Drinking Water	SM 2150B	
MB 810-14758/1	Method Blank	Total/NA	Drinking Water	SM 2150B	

Analysis Batch: 14760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	4500 Cl G	
810-17720-2	Spring	Total/NA	Drinking Water	4500 Cl G	
MB 810-14760/6	Method Blank	Total/NA	Drinking Water	4500 Cl G	
LCS 810-14760/5	Lab Control Sample	Total/NA	Drinking Water	4500 Cl G	
LLCS 810-14760/4	Lab Control Sample	Total/NA	Drinking Water	4500 Cl G	
810-17720-1 DU	Well B	Total/NA	Drinking Water	4500 Cl G	

Analysis Batch: 14865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	4500 ClO2 D	
810-17720-2	Spring	Total/NA	Drinking Water	4500 ClO2 D	
MB 810-14865/1	Method Blank	Total/NA	Drinking Water	4500 ClO2 D	
MB 810-14865/6	Method Blank	Total/NA	Drinking Water	4500 ClO2 D	
LCS 810-14865/2	Lab Control Sample	Total/NA	Drinking Water	4500 ClO2 D	

General Chemistry

Analysis Batch: 14893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	353.2	
810-17720-2	Spring	Total/NA	Drinking Water	353.2	
MB 810-14893/19	Method Blank	Total/NA	Drinking Water	353.2	
LCS 810-14893/15	Lab Control Sample	Total/NA	Drinking Water	353.2	
LLCS 810-14893/18	Lab Control Sample	Total/NA	Drinking Water	353.2	

Analysis Batch: 14894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	353.2	
810-17720-2	Spring	Total/NA	Drinking Water	353.2	
MB 810-14894/20	Method Blank	Total/NA	Drinking Water	353.2	
LCS 810-14894/16	Lab Control Sample	Total/NA	Drinking Water	353.2	
LLCS 810-14894/19	Lab Control Sample	Total/NA	Drinking Water	353.2	

Analysis Batch: 14988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	SM 2540D	
810-17720-2	Spring	Total/NA	Drinking Water	SM 2540D	
MB 810-14988/1	Method Blank	Total/NA	Drinking Water	SM 2540D	
LCS 810-14988/2	Lab Control Sample	Total/NA	Drinking Water	SM 2540D	

Analysis Batch: 15021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	SM 2510B	
810-17720-2	Spring	Total/NA	Drinking Water	SM 2510B	
LCS 810-15021/4	Lab Control Sample	Total/NA	Drinking Water	SM 2510B	
LLCS 810-15021/3	Lab Control Sample	Total/NA	Drinking Water	SM 2510B	
810-17720-1 DU	Well B	Total/NA	Drinking Water	SM 2510B	

Analysis Batch: 15041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	SM 2540C	
810-17720-2	Spring	Total/NA	Drinking Water	SM 2540C	
MB 810-15041/1	Method Blank	Total/NA	Drinking Water	SM 2540C	
LCS 810-15041/2	Lab Control Sample	Total/NA	Drinking Water	SM 2540C	
810-17720-1 DU	Well B	Total/NA	Drinking Water	SM 2540C	

Prep Batch: 15099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	Distill/CN	
MB 810-15099/30-A	Method Blank	Total/NA	Drinking Water	Distill/CN	
MB 810-15099/4-A	Method Blank	Total/NA	Drinking Water	Distill/CN	
LCS 810-15099/29-A	Lab Control Sample	Total/NA	Drinking Water	Distill/CN	
LLCS 810-15099/3-A	Lab Control Sample	Total/NA	Drinking Water	Distill/CN	

Analysis Batch: 15119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	SM 4500 F C	
810-17720-2	Spring	Total/NA	Drinking Water	SM 4500 F C	
MB 810-15119/6	Method Blank	Total/NA	Drinking Water	SM 4500 F C	
LCS 810-15119/4	Lab Control Sample	Total/NA	Drinking Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 15119 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LLCS 810-15119/5	Lab Control Sample	Total/NA	Drinking Water	SM 4500 F C	

Analysis Batch: 15127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	Nitrate by calc	
810-17720-2	Spring	Total/NA	Drinking Water	Nitrate by calc	

Analysis Batch: 15128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	335.4	15099
MB 810-15099/30-A	Method Blank	Total/NA	Drinking Water	335.4	15099
MB 810-15099/4-A	Method Blank	Total/NA	Drinking Water	335.4	15099
LCS 810-15099/29-A	Lab Control Sample	Total/NA	Drinking Water	335.4	15099
LLCS 810-15099/3-A	Lab Control Sample	Total/NA	Drinking Water	335.4	15099

Analysis Batch: 15176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	SM 2320B	
810-17720-2	Spring	Total/NA	Drinking Water	SM 2320B	
MB 810-15176/9	Method Blank	Total/NA	Drinking Water	SM 2320B	
LCS 810-15176/7	Lab Control Sample	Total/NA	Drinking Water	SM 2320B	
LLCS 810-15176/8	Lab Control Sample	Total/NA	Drinking Water	SM 2320B	

Prep Batch: 15406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-2	Spring	Total/NA	Drinking Water	Distill/CN	
MB 810-15406/4-A	Method Blank	Total/NA	Drinking Water	Distill/CN	
LCS 810-15406/2-A	Lab Control Sample	Total/NA	Drinking Water	Distill/CN	
LLCS 810-15406/3-A	Lab Control Sample	Total/NA	Drinking Water	Distill/CN	
810-17720-2 MS	Spring	Total/NA	Drinking Water	Distill/CN	
810-17720-2 MSD	Spring	Total/NA	Drinking Water	Distill/CN	

Analysis Batch: 15441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-2	Spring	Total/NA	Drinking Water	335.4	15406
MB 810-15406/4-A	Method Blank	Total/NA	Drinking Water	335.4	15406
LCS 810-15406/2-A	Lab Control Sample	Total/NA	Drinking Water	335.4	15406
LLCS 810-15406/3-A	Lab Control Sample	Total/NA	Drinking Water	335.4	15406
810-17720-2 MS	Spring	Total/NA	Drinking Water	335.4	15406
810-17720-2 MSD	Spring	Total/NA	Drinking Water	335.4	15406

Analysis Batch: 235424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-5	Well B	Total/NA	Water	5540C - 2011	
810-17720-6	Spring	Total/NA	Water	5540C - 2011	
MB 410-235424/3	Method Blank	Total/NA	Water	5540C - 2011	
LCS 410-235424/5	Lab Control Sample	Total/NA	Water	5540C - 2011	
LCSD 410-235424/6	Lab Control Sample Dup	Total/NA	Water	5540C - 2011	

QC Association Summary

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

General Chemistry

Analysis Batch: 236798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-5	Well B	Total/NA	Water	420.4	
810-17720-6	Spring	Total/NA	Water	420.4	
MB 410-236798/28	Method Blank	Total/NA	Water	420.4	
LCS 410-236798/26	Lab Control Sample	Total/NA	Water	420.4	
LCSD 410-236798/27	Lab Control Sample Dup	Total/NA	Water	420.4	

Rad

Prep Batch: 14789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	RAD Prep	
810-17720-2	Spring	Total/NA	Drinking Water	RAD Prep	

Prep Batch: 15101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	RAD Prep	
810-17720-2	Spring	Total/NA	Drinking Water	RAD Prep	
MB 810-15101/1-A	Method Blank	Total/NA	Drinking Water	RAD Prep	
LCS 810-15101/2-A	Lab Control Sample	Total/NA	Drinking Water	RAD Prep	

Prep Batch: 15102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	RAD Prep	
810-17720-2	Spring	Total/NA	Drinking Water	RAD Prep	
MB 810-15102/1-A	Method Blank	Total/NA	Drinking Water	RAD Prep	
LCS 810-15102/2-A	Lab Control Sample	Total/NA	Drinking Water	RAD Prep	

Prep Batch: 15122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	RAD Prep	
810-17720-2	Spring	Total/NA	Drinking Water	RAD Prep	
MB 810-15122/1-A	Method Blank	Total/NA	Drinking Water	RAD Prep	
LCS 810-15122/2-A	Lab Control Sample	Total/NA	Drinking Water	RAD Prep	

Biology

Analysis Batch: 14664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	SimPlate	
810-17720-2	Spring	Total/NA	Drinking Water	SimPlate	
MB 810-14664/5	Method Blank	Total/NA	Drinking Water	SimPlate	
POS 810-14664/4	Positive Control	Total/NA	Drinking Water	SimPlate	

Analysis Batch: 14764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-17720-1	Well B	Total/NA	Drinking Water	9223B	
810-17720-2	Spring	Total/NA	Drinking Water	9223B	

Client Sample ID: Well B

Date Collected: 03/10/22 12:10
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-1

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	14993	03/16/22 20:15	DC	EA SB
Total/NA	Analysis	524.2		1	15123	03/18/22 10:47	DC	EA SB
Total/NA	Analysis	524.2		1	15073	03/18/22 04:49	DL	EA SB
Total/NA	Prep	522			15223	03/21/22 07:41	MP	EA SB
Total/NA	Analysis	522		1	15313	03/22/22 13:52	TD	EA SB
Total/NA	Prep	525.2			15033	03/17/22 07:44	SC	EA SB
Total/NA	Analysis	525.2		1	15085	03/18/22 13:55	CG	EA SB
Total/NA	Prep	548.1			14823	03/15/22 06:53	CM	EA SB
Total/NA	Analysis	548.1		1	15042	03/17/22 04:38	TL	EA SB
Total/NA	Prep	504.1			14862	03/15/22 10:15	SC	EA SB
Total/NA	Analysis	504.1		1	14919	03/16/22 05:04	JB	EA SB
Total/NA	Prep	505			14969	03/16/22 09:55	SC	EA SB
Total/NA	Analysis	505		1	14999	03/16/22 22:47	JB	EA SB
Total/NA	Prep	515.3			15291	03/22/22 07:29	AM	EA SB
Total/NA	Cleanup	Aliquot			15348	03/22/22 12:55	AM	EA SB
Total/NA	Analysis	515.3		1	15378	03/22/22 22:48	TL	EA SB
Total/NA	Prep	551,1			15410	03/23/22 10:03	MP	EA SB
Total/NA	Cleanup	Aliquot			15470	03/23/22 15:35	MP	EA SB
Total/NA	Analysis	551.1		1	15474	03/24/22 02:28	JV	EA SB
Total/NA	Prep	552.2			15027	03/17/22 08:11	JH	EA SB
Total/NA	Analysis	552.2		1	15075	03/18/22 21:43	JB	EA SB
Total/NA	Analysis	552.2 THAA		1	15247	03/21/22 10:53	JB	EA SB
Total/NA	Analysis	300.0		1	14976	03/15/22 19:02	JL	EA SB
Total/NA	Analysis	300.0		1	14912	03/15/22 22:10	JL	EA SB
Total/NA	Analysis	317		1	14989	03/17/22 00:02	JL	EA SB
Dissolved	Filtration	Filtration			14952	03/16/22 10:07	HS	EA SB
Dissolved	Analysis	531.2		1	15067	03/19/22 05:50	TL	EA SB
Dissolved	Filtration	Filtration			14840	03/15/22 09:30	HS	EA SB
Dissolved	Analysis	547		1	14891	03/16/22 00:26	TL	EA SB
Total/NA	Prep	549.2			14934	03/16/22 06:59	MP	EA SB
Total/NA	Analysis	549.2		1	15152	03/18/22 17:28	DL	EA SB
Total/NA	Analysis	331.0		1	14964	03/17/22 18:42	JW	EA SB
Total/NA	Prep	533			14933	03/16/22 06:28	CM	EA SB
Total/NA	Analysis	533		1	14981	03/17/22 02:24	CM	EA SB
Total/NA	Prep	537.1 DW			14935	03/16/22 07:55	SS	EA SB
Total/NA	Analysis	537.1		1	15034	03/17/22 19:20	MH	EA SB
Total/NA	Prep	1613B			236037	03/21/22 15:00	CPV9	ELLE
Total/NA	Analysis	1613B		1	236375	03/23/22 00:40	UA2A	ELLE
Total/NA	Analysis	200.7		1	15167	03/18/22 14:31	AC	EA SB
Total/NA	Analysis	200.8		1	15088	03/17/22 15:39	NB	EA SB
Total/NA	Prep	245.1			15129	03/18/22 11:54	AC	EA SB
Total/NA	Analysis	245.1		1	15170	03/18/22 16:02	AC	EA SB
Total/NA	Analysis	SM 2340B		1	15220	03/20/22 17:00	AC	EA SB

Lab Chronicle

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Client Sample ID: Well B

Date Collected: 03/10/22 12:10
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-1

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	150.1		1	14683	03/11/22 14:27	JA	EA SB
Total/NA	Analysis	180.1		1	14701	03/11/22 16:05	JA	EA SB
Total/NA	Prep	Distill/CN			15099	03/18/22 06:45	KH	EA SB
Total/NA	Analysis	335.4		1	15128	03/18/22 11:11	KH	EA SB
Total/NA	Analysis	353.2		1	14893	03/15/22 10:12	KH	EA SB
Total/NA	Analysis	353.2		1	14894	03/15/22 14:22	KH	EA SB
Total/NA	Analysis	4500 Cl F Amine		1	14705	03/11/22 16:31	JA	EA SB
Total/NA	Analysis	4500 Cl G		1	14760	03/11/22 18:17	KH	EA SB
Total/NA	Analysis	4500 ClO2 D		1	14865	03/10/22 12:10	KH	EA SB
Total/NA	Analysis	Nitrate by calc		1	15127	03/18/22 11:24	KH	EA SB
Total/NA	Analysis	SM 2120B		1	14691	03/11/22 15:23	JA	EA SB
Total/NA	Analysis	SM 2150B		1	14758	03/11/22 14:58	JA	EA SB
Total/NA	Analysis	SM 2320B		1	15176	03/18/22 19:49	KH	EA SB
Total/NA	Analysis	SM 2510B		1	15021	03/16/22 19:50	AC	EA SB
Total/NA	Analysis	SM 2540C		1	15041	03/17/22 10:25	JA	EA SB
Total/NA	Analysis	SM 2540D		1	14988	03/16/22 15:46	JA	EA SB
Total/NA	Analysis	SM 4500 F C		1	15119	03/18/22 08:49	KH	EA SB
Total/NA	Prep	RAD Prep			15122	03/18/22 10:21	SS	EA SB
Total/NA	Analysis	7110B		1	16607		SS	EA SB
					(Start)	04/08/22 08:36		
					(End)	04/08/22 14:36		
Total/NA	Analysis	7500 Ra D		1	17369	04/21/22 16:02	SS	EA SB
Total/NA	Prep	RAD Prep			15102	03/18/22 07:56	SS	EA SB
Total/NA	Analysis	SM7500 Ra B		1	15877		SS	EA SB
					(Start)	03/29/22 09:47		
					(End)	03/29/22 10:47		
Total/NA	Prep	RAD Prep			15101	03/18/22 07:52	SS	EA SB
Total/NA	Analysis	SM7500 Ra D		1	17228		OO	EA SB
					(Start)	04/14/22 11:06		
					(End)	04/14/22 14:06		
Total/NA	Prep	RAD Prep			14789	03/11/22 12:43	OO	EA SB
Total/NA	Analysis	SM7500_Rn_B		1	15451		OO	EA SB
					(Start)	03/12/22 05:29		
					(End)	03/12/22 05:29		
Total/NA	Analysis	9223B		1	14764		HW	EA SB
					(Start)	03/14/22 15:26		
					(End)	03/16/22 09:00		
Total/NA	Analysis	SimPlate		1	14664		SF	EA SB
					(Start)	03/11/22 11:44		
					(End)	03/14/22 09:17		

Client Sample ID: Spring

Date Collected: 03/10/22 14:00
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-2

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	14993	03/16/22 19:52	DC	EA SB
Total/NA	Analysis	524.2		1	15123	03/18/22 10:47	DC	EA SB
Total/NA	Analysis	524.2		1	15073	03/18/22 05:13	DL	EA SB
Total/NA	Prep	522			15223	03/21/22 07:41	MP	EA SB
Total/NA	Analysis	522		1	15313	03/22/22 14:16	TD	EA SB
Total/NA	Prep	525.2			15115	03/18/22 07:44	SC	EA SB
Total/NA	Analysis	525.2		1	15245	03/21/22 21:50	TD	EA SB
Total/NA	Prep	548.1			14823	03/15/22 06:53	CM	EA SB
Total/NA	Analysis	548.1		1	15042	03/17/22 04:53	TL	EA SB
Total/NA	Prep	504.1			14862	03/15/22 10:15	SC	EA SB
Total/NA	Analysis	504.1		1	14919	03/16/22 05:30	JB	EA SB
Total/NA	Prep	505			14969	03/16/22 09:55	SC	EA SB
Total/NA	Analysis	505		1	14999	03/16/22 23:14	JB	EA SB
Total/NA	Prep	515.3			15484	03/24/22 08:28	AM	EA SB
Total/NA	Cleanup	Aliquot			15506	03/24/22 11:47	AM	EA SB
Total/NA	Analysis	515.3		1	15555	03/25/22 13:21	TL	EA SB
Total/NA	Prep	551,1			15410	03/23/22 10:03	MP	EA SB
Total/NA	Cleanup	Aliquot			15470	03/23/22 15:35	MP	EA SB
Total/NA	Analysis	551.1		1	15474	03/24/22 03:06	JV	EA SB
Total/NA	Prep	552.2			15027	03/17/22 08:11	JH	EA SB
Total/NA	Analysis	552.2		1	15075	03/18/22 22:19	JB	EA SB
Total/NA	Analysis	552.2 THAA		1	15247	03/21/22 10:53	JB	EA SB
Total/NA	Analysis	300.0		1	14976	03/15/22 20:03	JL	EA SB
Total/NA	Analysis	300.0		1	14912	03/15/22 22:41	JL	EA SB
Total/NA	Analysis	317		1	14989	03/17/22 00:30	JL	EA SB
Dissolved	Filtration	Filtration			14952	03/16/22 10:07	HS	EA SB
Dissolved	Analysis	531.2		1	15067	03/19/22 06:21	TL	EA SB
Dissolved	Filtration	Filtration			14840	03/15/22 09:30	HS	EA SB
Dissolved	Analysis	547		1	14891	03/16/22 01:55	TL	EA SB
Total/NA	Prep	549.2			14934	03/16/22 06:59	MP	EA SB
Total/NA	Analysis	549.2		1	15152	03/18/22 17:46	DL	EA SB
Total/NA	Analysis	331.0		1	14964	03/17/22 18:57	JW	EA SB
Total/NA	Prep	533			14933	03/16/22 06:28	CM	EA SB
Total/NA	Analysis	533		1	14981	03/17/22 02:37	CM	EA SB
Total/NA	Prep	1613B			236037	03/21/22 15:00	CPV9	ELLE
Total/NA	Analysis	1613B		1	236375	03/23/22 01:29	UA2A	ELLE
Total/NA	Analysis	200.7		1	15167	03/18/22 14:38	AC	EA SB
Total/NA	Analysis	200.8		1	15088	03/17/22 16:33	NB	EA SB
Total/NA	Prep	245.1			15129	03/18/22 11:54	AC	EA SB
Total/NA	Analysis	245.1		1	15170	03/18/22 16:05	AC	EA SB
Total/NA	Analysis	SM 2340B		1	15220	03/20/22 17:00	AC	EA SB
Total/NA	Analysis	150.1		1	14683	03/11/22 14:31	JA	EA SB
Total/NA	Analysis	180.1		1	14701	03/11/22 16:04	JA	EA SB

Client Sample ID: Spring

Date Collected: 03/10/22 14:00
Date Received: 03/11/22 09:15

Lab Sample ID: 810-17720-2

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Distill/CN			15406	03/23/22 10:26	KH	EA SB
Total/NA	Analysis	335.4		1	15441	03/23/22 13:12	KH	EA SB
Total/NA	Analysis	353.2		1	14893	03/15/22 10:11	KH	EA SB
Total/NA	Analysis	353.2		1	14894	03/15/22 14:20	KH	EA SB
Total/NA	Analysis	4500 Cl F Amine		1	14705	03/11/22 16:28	JA	EA SB
Total/NA	Analysis	4500 Cl G		1	14760	03/11/22 18:17	KH	EA SB
Total/NA	Analysis	4500 ClO2 D		1	14865	03/10/22 14:00	KH	EA SB
Total/NA	Analysis	Nitrate by calc		1	15127	03/18/22 11:24	KH	EA SB
Total/NA	Analysis	SM 2120B		1	14691	03/11/22 15:22	JA	EA SB
Total/NA	Analysis	SM 2150B		1	14758	03/11/22 14:53	JA	EA SB
Total/NA	Analysis	SM 2320B		1	15176	03/18/22 20:05	KH	EA SB
Total/NA	Analysis	SM 2510B		1	15021	03/16/22 19:54	AC	EA SB
Total/NA	Analysis	SM 2540C		1	15041	03/17/22 10:37	JA	EA SB
Total/NA	Analysis	SM 2540D		1	14988	03/16/22 15:40	JA	EA SB
Total/NA	Analysis	SM 4500 F C		1	15119	03/18/22 07:33	KH	EA SB
Total/NA	Prep	RAD Prep			15122	03/18/22 10:21	SS	EA SB
Total/NA	Analysis	7110B		1	16607		SS	EA SB
					(Start)	04/08/22 08:36		
					(End)	04/08/22 14:36		
Total/NA	Analysis	7500 Ra D		1	17369	04/21/22 16:02	SS	EA SB
Total/NA	Prep	RAD Prep			15102	03/18/22 07:56	SS	EA SB
Total/NA	Analysis	SM7500 Ra B		1	15877		SS	EA SB
					(Start)	03/29/22 09:47		
					(End)	03/29/22 10:47		
Total/NA	Prep	RAD Prep			15101	03/18/22 07:52	SS	EA SB
Total/NA	Analysis	SM7500 Ra D		1	17228		OO	EA SB
					(Start)	04/14/22 11:06		
					(End)	04/14/22 14:06		
Total/NA	Prep	RAD Prep			14789	03/11/22 12:43	OO	EA SB
Total/NA	Analysis	SM7500_Rn_B		1	15451		OO	EA SB
					(Start)	03/12/22 06:44		
					(End)	03/12/22 06:44		
Total/NA	Analysis	9223B		1	14764		HW	EA SB
					(Start)	03/14/22 15:26		
					(End)	03/16/22 09:00		
Total/NA	Analysis	SimPlate		1	14664		SF	EA SB
					(Start)	03/11/22 11:44		
					(End)	03/14/22 09:17		

Lab Chronicle

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Client Sample ID: Well B

Lab Sample ID: 810-17720-5

Date Collected: 03/10/22 12:10

Matrix: Water

Date Received: 03/11/22 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	420.4		1	236798	03/23/22 11:42	CBM8	ELLE
Total/NA	Analysis	5540C - 2011		1	235424	03/19/22 03:58	UDS7	ELLE

Client Sample ID: Spring

Lab Sample ID: 810-17720-6

Date Collected: 03/10/22 14:00

Matrix: Water

Date Received: 03/11/22 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	420.4		1	236798	03/23/22 10:18	CBM8	ELLE
Total/NA	Analysis	5540C - 2011		1	235424	03/19/22 03:58	UDS7	ELLE

Laboratory References:

E CEI = E CEI, 730 SE Maynard Road, Cary, NC 27511

EA SB = Eurofins Eaton South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Laboratory: Eurofins Eaton South Bend

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
West Virginia (DW)	State	9927 C	12-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
150.1		Drinking Water	pH
180.1		Drinking Water	Turbidity
200.7		Drinking Water	Calcium
200.7		Drinking Water	Iron
200.7		Drinking Water	Magnesium
200.8		Drinking Water	Manganese
200.8		Drinking Water	Silver
200.8		Drinking Water	Zinc
300.0		Drinking Water	Bromide
300.0		Drinking Water	Chlorate
300.0		Drinking Water	Chloride
300.0		Drinking Water	Sulfate
331.0		Drinking Water	Perchlorate
353.2		Drinking Water	Nitrate Nitrite as N
4500 Cl F Amine		Drinking Water	Chloramines, Total
4500 Cl F Amine		Drinking Water	Dichloramine
4500 Cl F Amine		Drinking Water	Monochloramine
4500 Cl F Amine		Drinking Water	Nitrogen trichloride
4500 Cl G		Drinking Water	Free Chlorine
4500 ClO2 D		Drinking Water	Chlorine dioxide, Residual
505	505	Drinking Water	Total PCBs as DCB (Qualitative)
522	522	Drinking Water	1,4-Dioxane
524.2		Drinking Water	1,1,1,2-Tetrachloroethane
524.2		Drinking Water	1,1,2,2-Tetrachloroethane
524.2		Drinking Water	1,1-Dichloroethane
524.2		Drinking Water	1,1-Dichloropropene
524.2		Drinking Water	1,2,3-Trichlorobenzene
524.2		Drinking Water	1,2,3-Trichloropropane
524.2		Drinking Water	1,2,4-Trimethylbenzene
524.2		Drinking Water	1,2-Dibromo-3-Chloropropane
524.2		Drinking Water	1,2-Dibromoethane (EDB)
524.2		Drinking Water	1,3,5-Trimethylbenzene
524.2		Drinking Water	1,3-Dichlorobenzene
524.2		Drinking Water	1,3-Dichloropropane
524.2		Drinking Water	2,2-Dichloropropane
524.2		Drinking Water	2-Chlorotoluene
524.2		Drinking Water	4-Chlorotoluene
524.2		Drinking Water	4-Isopropyltoluene
524.2		Drinking Water	Bromobenzene
524.2		Drinking Water	Bromochloromethane
524.2		Drinking Water	Bromomethane
524.2		Drinking Water	Chloroethane
524.2		Drinking Water	Chloromethane
524.2		Drinking Water	cis-1,3-Dichloropropylene
524.2		Drinking Water	Dibromomethane

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Laboratory: Eurofins Eaton South Bend (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
524.2		Drinking Water	Dichlorodifluoromethane
524.2		Drinking Water	Hexachlorobutadiene
524.2		Drinking Water	Isopropylbenzene
524.2		Drinking Water	Methyl-tert-butyl Ether (MTBE)
524.2		Drinking Water	m-Xylene & p-Xylene
524.2		Drinking Water	Naphthalene
524.2		Drinking Water	n-Butylbenzene
524.2		Drinking Water	N-Propylbenzene
524.2		Drinking Water	o-Xylene
524.2		Drinking Water	sec-Butylbenzene
524.2		Drinking Water	tert-Butylbenzene
524.2		Drinking Water	trans-1,3-Dichloropropylene
524.2		Drinking Water	Trichlorofluoromethane
551.1	551,1	Drinking Water	1,1,1-Trichloro-2-propanone
551.1	551,1	Drinking Water	1,1-Dichloro-2-propanone
551.1	551,1	Drinking Water	Bromochloroacetonitrile
551.1	551,1	Drinking Water	Chloropicrin
551.1	551,1	Drinking Water	Dibromoacetonitrile
551.1	551,1	Drinking Water	Dichloroacetonitrile
551.1	551,1	Drinking Water	Trichloroacetonitrile
7500 Ra D		Drinking Water	Combined Radium 226 + 228
9223B		Drinking Water	Coliform, Total
9223B		Drinking Water	Escherichia coli
SimPlate		Drinking Water	Heterotrophic Plate Count
SM 2120B		Drinking Water	Color, Apparent
SM 2150B		Drinking Water	Odor
SM 2320B		Drinking Water	Alkalinity, Bicarbonate
SM 2320B		Drinking Water	Alkalinity, Total
SM 2340B		Drinking Water	Calcium hardness as calcium carbonate
SM 2340B		Drinking Water	Hardness as calcium carbonate
SM 2340B		Drinking Water	Magnesium hardness as calcium carbonate
SM 2510B		Drinking Water	Specific Conductance
SM 2540C		Drinking Water	Total Dissolved Solids
SM 2540D		Drinking Water	Total Suspended Solids
SM7500_Rn_B	RAD Prep	Drinking Water	Radon 222

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-22
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-28-23
Arizona	State	AZ0780	03-12-23
Arkansas DEQ	State	88-0660	08-10-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2792	02-02-22 *
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-23
Delaware (DW)	State	N/A	01-31-23
Florida	NELAP	E87997	06-30-22
Georgia (DW)	State	C048	01-31-22 *
Hawaii	State	N/A	01-31-23
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22 *
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-22
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	01-01-23
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-23
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-31-23
Minnesota	NELAP	042-999-487	12-31-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-23
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-23
New Hampshire	NELAP	2730	01-10-23
New Jersey	NELAP	PA011	06-30-22
New York	NELAP	10670	03-30-22
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-22
North Dakota	State	R-205	01-31-23
Oklahoma	NELAP	R-205	08-31-22
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-23
Rhode Island	State	LAO00338	12-30-22
South Carolina	State	89002	01-31-23
Tennessee	State	02838	01-31-23
Texas	NELAP	T104704194-21-40	08-31-22
USDA	US Federal Programs	P330-19-00197	07-03-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	06-14-22
Washington	State	C457	04-12-22
West Virginia (DW)	State	9906 C	12-31-22
West Virginia DEP	State	055	04-12-22
Wyoming	State	8TMS-L	01-31-23
Wyoming (UST)	A2LA	1.01	11-30-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Method	Method Description	Protocol	Laboratory
524.2	Total Trihalomethanes	EPA-DW	EA SB
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	EA SB
522	1,4 Dioxane (GC/MS SIM)	EPA	EA SB
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA SB
548.1	Endothall (GC/MS)	EPA	EA SB
504.1	EDB, DBCP and 1,2,3-TCP (GC)	EPA-DW	EA SB
505	Organochlorine Pesticides/PCBs (GC)	EPA	EA SB
515.3	Herbicides (GC)	EPA	EA SB
551.1	Chlorinated Disinfection Byproducts and Solvents (GC)	EPA	EA SB
552.2	Haloacetic Acids (HAAs) (GC)	EPA	EA SB
552.2 THAA	Total Haloacetic Acids (GC)	EPA	EA SB
300.0	Anions, Ion Chromatography	EPA	EA SB
317	Bromate, Ion Chromatography	EPA	EA SB
531.2	Carbamate Pesticides (HPLC)	EPA	EA SB
547	Glyphosate (DAI HPLC)	EPA	EA SB
549.2	Diquat and Paraquat (HPLC)	EPA	EA SB
331.0	Perchlorate (LC/MS/MS)	EPA	EA SB
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA SB
537.1	Perfluorinated Alkyl Acids (LC/MS)	EPA	EA SB
1613B	Tetra Chlorinated Dioxin in Drinking Water	EPA	ELLE
200.7	Metals (ICP)	EPA	EA SB
200.8	Metals (ICP/MS)	EPA	EA SB
245.1	Mercury (CVAA)	EPA	EA SB
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	EA SB
150.1	pH (Electrometric)	MCAWW	EA SB
180.1	Turbidity, Nephelometric	MCAWW	EA SB
335.4	Cyanide, Total	MCAWW	EA SB
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	EA SB
420.4	Phenolics, Total Recoverable	MCAWW	ELLE
4500 Cl F Amine	Chloramines	SM	EA SB
4500 Cl G	Chlorine, Free	SM	EA SB
4500 ClO2 D	Chlorine Dioxide	SM	EA SB
5540C - 2011	Methlyene Blue Active Substant (MBAS)	SM	ELLE
Nitrate by calc	Nitrogen, Nitrate-Nitrite	SM	EA SB
SM 2120B	Color, Colorimetric	SM	EA SB
SM 2150B	Odor	SM	EA SB
SM 2320B	Alkalinity	SM	EA SB
SM 2510B	Conductivity, Specific Conductance	SM	EA SB
SM 2540C	Solids, Total Dissolved (TDS)	SM	EA SB
SM 2540D	Solids, Total Suspended (TSS)	SM	EA SB
SM 4500 F C	Fluoride	SM	EA SB
7110B	Gross Alpha and Gross Beta Radioactivity	SM	EA SB
7500 Ra D	Radium 226 Radium 228 Combined	SM	EA SB
SM7500 Ra B	Radium-226	SM	EA SB
SM7500 Ra D	Radium-228	SM	EA SB
SM7500_Rn_B	Radon	SM	EA SB
9223B	Coliforms, Total, and E.Coli (Presence/Absence)	SM	EA SB
SimPlate	Heterotrophic Plate Count (HPC)	IDEXX	EA SB
Subcontract	Asbestos	None	E CEI
1613B	Separatory Funnel (Liquid-Liquid) Extraction	EPA	ELLE
245.1	Preparation, Mercury	EPA	EA SB
504.1	Microextraction	EPA-DW	EA SB
505	Extraction, Organochlorine Pesticides/PCBs	EPA	EA SB

Method Summary

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Method	Method Description	Protocol	Laboratory
515.3	Extraction of Chlorinated Acids	EPA-DW	EA SB
522	Solid-Phase Extraction (SPE)	EPA	EA SB
525.2	Extraction of Semivolatile Compounds	EPA	EA SB
533	Extraction of Perfluorinated and Polyfluorinated Alkyl Acids	EPA	EA SB
537.1 DW	Extraction of Perfluorinated Alkyl Acids	EPA	EA SB
548.1	Extraction of Endothall	EPA-DW	EA SB
549.2	Extraction of Diquat and Paraquat	EPA	EA SB
551,1	Extraction of Chlorinated Disinfection Byproducts and Chlorinated Solvents	EPA	EA SB
552.2	Microextraction	EPA	EA SB
Aliquot	Preparation, Extract aliquot	None	EA SB
Distill/CN	Distillation, Cyanide	None	EA SB
Filtration	Sample Filtration	None	EA SB
RAD Prep	Preparation, Radiologicals	None	EA SB

Protocol 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 = IDEXX Laboratories
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
None = None
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

E CEI = E CEI, 730 SE Maynard Road, Cary, NC 27511
EA SB = Eurofins Eaton South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Triad Engineering, Inc.
Project/Site: WV Drinking Water

Job ID: 810-17720-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
810-17720-1	Well B	Drinking Water	03/10/22 12:10	03/11/22 09:15
810-17720-2	Spring	Drinking Water	03/10/22 14:00	03/11/22 09:15
810-17720-5	Well B	Water	03/10/22 12:10	03/11/22 09:15
810-17720-6	Spring	Water	03/10/22 14:00	03/11/22 09:15

W220101 W2540-W2541

South Bend, IN
110 S Hill Street
South Bend, IN 46617
Phone: 574-233-4777 Fax: 574-233-8207

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mattheis, Joe	Carrier Tracking No(s):	COC No: 810-2417.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: joe.mattheis@eurofinset.com	State of Origin: Maryland	Page: Page 1 of 1
Company: Eurofins CEI Inc		Accreditations Required (See note): State - West Virginia (DW)		Job #: 810-17720-1
Address: 730 SE Maynard Road,	Due Date Requested: 3/25/2022			
City: Cary	TAT Requested (days):			
State, Zip: NC, 27511				
Phone:	PO #:			
Email:	WO #:			
Project Name: WV Drinking Water	Project #: 81002211			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Asbestos)/ Asbestos	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
✓ Well B (810-17720-1)	3/10/22	12:10 Eastern		Drinking Wate			X	1	3.2
✓ Spring (810-17720-2)	3/10/22	14:00 Eastern		Drinking Wate			X	1	2.7

Please proceed out of hold time ss 3-15-22

eurofins | cei Accept Samples 10:10 3/16 PP PP

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	3-15-22 1600	EEA			
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

4/21/2022

March 25, 2022

Eurofins Eaton Analytical
110 S. Hill Street
South Bend, IN 46617

CLIENT PROJECT: WV Drinking Water, 81002211
LAB CODE: W220101

Dear Customer:

Enclosed are asbestos analysis results for TEM drinking water samples received at our laboratory on March 16, 2022. The samples were analyzed for asbestos using transmission electron microscopy (TEM) per the US EPA 100.2 Method.

The current EPA regulatory limit for asbestos in drinking water is 7 million fibers per liter (MFL, > 10 µm in length). The analytical sensitivity for the EPA 100.2 method is 0.2 MFL.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,

Tianbao Bai, Ph.D., CIH
Laboratory Director

eurofins | CEI

ASBESTOS ANALYTICAL REPORT
By: Transmission Electron Microscopy

Prepared for

Eurofins Eaton Analytical

CLIENT PROJECT: WV Drinking Water, 81002211

LAB CODE: W220101

TEST METHOD: EPA 100.2

REPORT DATE: 03/25/22

730 SE Maynard Road • Cary, NC 27511 • 919.481.1413

ASBESTOS IN DRINKING WATER ANALYSIS
By: TRANSMISSION ELECTRON MICROSCOPY

Client: Eurofins Eaton Analytical
110 S. Hill Street
South Bend, IN 46617

		Lab Code:	W220101
Time Collected:	12:10 PM	**Date Collected:**	03-10-22
Time Received:	10:10 AM	**Date Received:**	03-16-22
Time Filtered:	3:00 PM	**Date Filtered:**	03-23-22
Time Analyzed:	7:57 AM	**Date Analyzed:**	03-25-22
Avg Grid Opening Size:	.01 mm^2	**Date Reported:**	03-25-22

Project: WV Drinking Water, 81002211

TEM DRINKING WATER (EPA 100.2)

Client ID / Lab ID	Sample Volume Filtered	Dilution Factor	Effective Filter Area (mm^2)	# Of Grid Openings Analyzed	Total Area of Filter Examined	Analytical Sensitivity (MFL)	Asbestos Type	Concentration >10 µm	Concentration (MFL)	Confidence Limit Lower	Confidence Limit Upper
Well B(810 -17720-1) W2540	100	1	1060	6	0.06	0.177	None Detected	0	**<.18**	0.0	<0.65
Sample ozonated prior to analysis due to lab receipt time exceeding 48 hr method hold time.											
Spring (810 -17720-2) W2541	100	2	1060	11	0.11	0.193	None Detected	0	**<.19**	0.0	<0.71
Sample ozonated prior to analysis due to lab receipt time exceeding 48 hr method hold time.											

eurofins | CEI

LEGEND: MFL = million fibers per liter , > 10 um in length
NSD = no asbestos structures detected
ml = milliliter
CHRY = chrysotile
um = micrometer
CROC = crocidolite
mm = millimeter

METHOD: EPA 100.2

ANALYTICAL SENSITIVITY: 0.2 MFL

MAXIMUM CONTAMINANT LEVEL: 7 MFL

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of customer submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the customer. Samples were received in acceptable condition unless otherwise noted.

Information provided by customer includes customer sample ID, location, volume and area as well as date and time of sampling.

Sample bottle was not provided by Eurofins CEI.
For the current states of certification please refer to the website: www.EurofinsUS.com/CEI

ANALYST: Brunilda Gjoka
Brunilda Gjoka

APPROVED BY:
Tianbao Bai, Ph.D., CIH
Laboratory Director

TestAmerica Pittsburgh
301 Alpha Drive

Pittsburgh, PA 15238
phone 412.963.7058 fax 412.963.2470

Chain of Custody Record

Harrisburg #267

2211

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager:	Site Contact: N. CK Wolfe	Date:	COC No:
Company: Triad Engineering	Tel/Fax:	Lab Contact: NWolfe@triadeng.com	Carrier:	____ of ____ COCs
Address: 1075 D Sherman Ave	**Analysis Turnaround Time**			Job No.
City/State/Zip: Hagerstown, MD 21740	Calendar (C) or Work Days (W) ____			
Phone: 301-797-6400	TAT if different from Below ____			SDG No.
FAX	☐ 2 weeks			
Project Name: Turkey Run	☐ 1 week			
Site: Turkey Run	☐ 2 days			
PO #	☐ 1 day			

810-17720 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:
Well B	3/10/22	12:10	G	W		0°C, 0°C, 0°C
Spring	3/10/22	14:00	G	W		0°C, 0°C

522 pH adjusted upon receipt
549 pH adjusted upon receipt / SS 3-14-22

Client Provided Sample Container

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments:
Spring does not have all preservatives — OK to proceed out of hold time if necessary per NT. OK to add preservative or adjust if necessary SS 3-14-22

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Erica [illegible]	Triad	3/10/22 1745	R. W. Stull	ETA	3/10/22 1745
R. W. Stull	ETA	3/10/22 1800	M. FED EX		
			SS [illegible]	EEA	3-11-22 0915

eurofins | Eaton Analytical

Kit Order for Triad Engineering, Inc.

Rachelle Arada is your Eurofins Eaton Analytical, LLC Service Manager

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
(626) 386-1100 FAX (866) 988-3757

Created Date & Time: 3/8/2022 3:11:43PM

Note: Sampler Please return this paper with your samples

Harrisburg
#267

Kit #: 314729[redacted]
Created By: Rachelle Arada - [L6NW]
Deliver By: 03/10/2022
STG: Bottle Orders
Ice Type: W

Client ID: TRIADENG-MD[redacted]
Project Code: WATERTESTING Bottle Orders
Group Name: FULL TEST
PO#/JOB#:
Description: No Schedule

Ship Sample Kits to
Triad Engineering, Inc.
1075 Sherman Ave
Hagerstown, MD 21740

Attn: Nicke Wolfe
Phone: 301-797-6400
Fax: 301-979-2424

Send Report to
Triad Engineering, Inc.
1075 Sherman Ave
Hagerstown, MD 21740

Attn: Nicke Wolfe
Phone: 301-797-6400
Fax: 301-979-2424

Billing Address
Triad Engineering, Inc.
10541 Teays Valley Road
Scott Depot, WV 25560

Attn: Karen Means
Phone: 304-755-0721
Fax: 304-755-1880

# of Sample	Tests	Bottle Qty - Type [preservative information]	Total	UN DOT #
1	@QUANT2000 18HR	1 - 100ml poly sterilized [0.25 ml Thio (8%)]	1	
1	Heterotrophic Plate Count	1 - 100ml sterile COLILERT container [THIO xls]	1	
1	Phenolic Compounds-low level	2 - 125ml amber glass [0.5 ml H2SO4 (50%)]	2	UN1830
1	@DIOXANE	3 - 125ml amber glass [6.88 Sulfite +138 mg Bisulfate]	3	
1	Chloramines, Chlorine Dioxide, Free Chlorine Residual, Total Chlorine Residual	1 - 125ml amber glass [no preservative]	1	
1	Glyphosate	1 - 125ml amber glass [no preservative]	1	
1	@331-PHG	1 - 125ml poly [no preservative]	1	
1	@ANIONS28, @ANIONS48, @DBP_28	1 - 125ml poly [no preservative]	1	
1	@2378-TCDD_Dioxin	2 - 1L amber glass [1 ml Thio 8%]	~~2~~	
1	@525	2 - 1L amber glass [2ml of 6N HCl]	2	UN1789
	2,3,7,8-TCDD	2 - 1L amber glass [no preservative]	~~2~~ 4 ss	
1	Apparent Color, Odor at 60 C (TON), Turbidity	1 - 1L amber glass [no preservative]	1	
1	@549	1 - 1L amber poly [no preservative]	1	
1	@RA226 GA, @RA228 GA	3 - 1L poly [4 ml HNO3 18%]	3	UN2031
1	Asbestos by TEM - >10 microns	1 - 1L poly sonicated [no preservative]	1	
1	Cyanide	1 - 250 ml poly [2 ml NaOH (30%)+6 scoops AA]	1	
1	Fluoride	1 - 250 ml poly [no preservative]	1	
1	@533	2 - 250 ml polypro w polypro cap [0.25g ammonium acetate]	2	
1	~~@533 FB~~	~~1 - 250 ml polypro w polypro cap [FB_0.25g ammonium acetate]~~	~~1~~	
1	~~@533 FB WATER~~	~~1 - 250 ml polypro w polypro cap [H2O]~~	~~1~~	
1	Endothall	1 - 250ml amber glass [no preservative]	1	
1	Alkalinity in CaCO3 units, PH (H3=past HT not compliant), Specific Conductance	1 - 250ml poly [no preservative]	1	
1	@537.1	2 - 275 ml polypro w polypro cap [1.4 g Trisma]	2	Not received for Spring ss 3-11-22
1	@537.1 FB	1 - 275 ml polypro w polypro cap [FB_1.4 g Trisma]	1	

eurofins | Eaton Analytical

Kit Order for Triad Engineering, Inc.

Rachelle Arada is your Eurofins Eaton Analytical, LLC Service Manager

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
(626) 386-1100 FAX (866) 988-3757

Created Date & Time: 3/8/2022 3:11:43PM

Note: Sampler Please return this paper with your samples

Harrisburg
#267

Kit #: 314729[redacted]
Created By: Rachelle Arada - [L6NW]
Deliver By: 03/10/2022
STG: Bottle Orders
Ice Type: W

Client ID: TRIADENG-MD[redacted]
Project Code: WATERTESTING Bottle Orders
Group Name: FULL TEST
PO#/JOB#:
Description: No Schedule

Ship Sample Kits to	Send Report to	Billing Address
Triad Engineering, Inc. 1075 Sherman Ave Hagerstown, MD 21740 Attn: Nicke Wolfe Phone: 301-797-6400 Fax: 301-979-2424	Triad Engineering, Inc. 1075 Sherman Ave Hagerstown, MD 21740 Attn: Nicke Wolfe Phone: 301-797-6400 Fax: 301-979-2424	Triad Engineering, Inc. 10541 Teays Valley Road Scott Depot, WV 25560 Attn: Karen Means Phone: 304-755-0721 Fax: 304-755-1880

# of Sample	Tests	Bottle Qty - Type [preservative information]	Total	UN DOT #
1	@537.1 FB WATER	1 - 275 ml polypro w polypro cap [no preservative + H20]	1	
1	@531	2 - 40ml amber glass vial [0.37g KH2Citrate+6mg ThioSO4]	2	
1	@505	4 - 40ml amber glass vial [1 drop Thio (8%)]	4	
1	@VOA	3 - 40ml amber glass vial [4drops 6N HCL (36%)]	3	UN1789
1	@HAA	3 - 40ml amber glass vial [65 mg NH4Cl]	3	
1	@504LOW	3 - 40ml amber glass vial [no preservative]	3	
1	@RN	2 - 40ml amber glass vial [no preservative]	2	
1	@ICP, @ICPMS, Mercury ICPMS	1 - 500ml acid poly [2ml HNO3 (18%)]	1	UN2031
1	@900	1 - 500ml poly [2ml 18%HNO3+125ml poly/no pres]	1	UN2031
1	Surfactants	1 - 500ml poly [no preservative]	1	
1	Total Dissolved Solid (TDS), Total Suspended Solids (TSS)	1 - 500ml poly [no preservative]	1	
1	@515.4	4 - 60ml amber glass [3 mg NaSulfite]	4	
1	@551SODA	3 - 60ml amber glass vial [1g (1%NaPhos/99%KPhos+ 0.6%NH4CL /vial]	3	
1	@DBP_14, Bromate by UV/VIS	1 - 60mL poly [0.3 mL 1% EDA solution]	1	

Sum Tests: 38 **Sum Bottles:** 64

Comments

SHIPPING: Please provide COC and sampling instructions.

2 Sites. Well B & Spring
Well B Samples taken @ 12:10 on 3/10/22
Spring Samples taken @ 1400 on 3/10/22

Taken by Erin Rinehart
Relinquished by Erin Rinehart @ 17:45 3/10/22
RECIEVED 3/10/22 1745 R.
RELINQUISHED 3/10/22 1880 R.

Code	Status	Date Shipped	Via	Tracking #	# of Coolers	Prepared By
					1	TB/MED 6X

4/21/2022

South Bend, IN
110 S Hill Street
South Bend, IN 46617
Phone: 574-233-4777 Fax: 574-233-8207

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mattheis, Joe	Carrier Tracking No(s):	COC No: 810-2416.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: joe.mattheis@eurofinset.com	State of Origin: Maryland	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Env, LLC		Accreditations Required (See note): State - West Virginia (DW)		Job #: 810-17720-1
Address: 2425 New Holland Pike,	Due Date Requested: 3/24/2022			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: WV Drinking Water	Project #: 81002211			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B_DW/1613B_P_Sep 2,3,7,8-TCDD	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
✓ Well B (810-17720-1)	3/10/22	12:10 Eastern		Drinking Wate			X	2	
✓ Spring (810-17720-2)	3/10/22	14:00 Eastern		Drinking Wate			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	315 22 1600	EEA			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 3/16/22 9:44	Company ELE

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.1

Ver: 06/08/2021

South Bend, IN
110 S Hill Street
South Bend, IN 46617
Phone: 574-233-4777 Fax: 574-233-8207

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mattheis, Joe	Carrier Tracking No(s):	COC No: 810-2456.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: joe.mattheis@eurofinset.com	State of Origin: Maryland	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Env, LLC		Accreditations Required (See note): State - West Virginia (DW)		Job #: 810-17720-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 3/24/2022			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: WV Drinking Water	Project #: 81002211			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	5540C/ Copy Analytes *	420.4	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
✓ Well B (810-17720-5)	3/10/22	12:10 Eastern		Water			X	X	3	
✓ Spring (810-17720-6)	3/10/22	14:00 Eastern		Water			X	X	3	

OK to proceed out of hold time * SS 3-17-22

Note. Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	3-17-22 1600	EEA			
2						
3					3/18/22 1045	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.7

Ver: 06/08/2021

AEH

Login Sample Receipt Checklist

Client: Triad Engineering, Inc.

Job Number: 810-17720-1

Login Number: 17720
List Number: 1
Creator: Spurgeon, Sheri

List Source: Eurofins Eaton South Bend

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	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 containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	False	Client provided containers

Login Sample Receipt Checklist

Client: Triad Engineering, Inc.

Job Number: 810-17720-1

Login Number: 17720
List Number: 2
Creator: McCaskey, Jonathan

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 03/16/22 09:50 AM

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

Login Sample Receipt Checklist

Client: Triad Engineering, Inc.

Job Number: 810-17720-1

Login Number: 17720
List Number: 3
Creator: Hess, Anna

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 03/18/22 11:19 AM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
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 containers received and the COC.	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.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

3020 VENTRIE COURT
MYERSVILLE, MD 21773

FTL LABS
FREDERICKTOWNE LABS ENVIRONMENTAL TESTING

(301) 293-3340
INFO@FTLLAB.COM

Client: Triad Engineering, Inc.
10541 Teays Valley Road
Scott Depot, WV 25560

Project: Turkey Run

Site: N/A

Work order: FWC0147

Received at lab: 03/11/22 11:00
Date Reported: 03/14/22 15:00
Collected by: Erika Rundquist
Treatment: N/A

Source: Well MW-13@ Turkey Run
(Groundwater)(Grab) Collected: 3/11/2022 9:16:00AM

Data Analyzed by: Fredricktowne Labs:

Lab ID	Parameter	Result	Units	MRL	Prepared	Analyzed	Analyst	Qual	Method
FWC0147-01	Bacteria - Total Coliform	200	cfu/100 ml	1	03/11/22 15:30	03/12/22 10:38	JD		9223B
FWC0147-01	Bacteria - E coli	10	cfu/100 ml	1	03/11/22 15:30	03/12/22 10:38	JD		9223B
FWC0147-01	Bact.- Stand. Plate Count	100	CFU/10 0 mL	2.0	03/11/22 15:16	03/14/22 08:21	JD		Simplate®

Source: Spring Middle of Pool
(Groundwater)(Grab) Collected: 3/11/2022 9:30:00AM

Data Analyzed by: Fredricktowne Labs:

Lab ID	Parameter	Result	Units	MRL	Prepared	Analyzed	Analyst	Qual	Method
FWC0147-02	Bacteria - Total Coliform	330	cfu/100 ml	1	03/11/22 15:30	03/12/22 10:38	JD		9223B
FWC0147-02	Bacteria - E coli	3	cfu/100 ml	1	03/11/22 15:30	03/12/22 10:38	JD		9223B
FWC0147-02	Bact.- Stand. Plate Count	108	CFU/10 0 mL	2.0	03/11/22 15:16	03/14/22 08:21	JD		Simplate®

Sara E. Randall, President

Fredericktowne Labs, Inc. is a State Certified Water Quality Laboratory
Maryland Cert. No. 116 Virginia Cert. No. 00444
West Virginia Cert. 415 MDOT WBE Cert. No.: 91-158

CHAIN OF CUSTODY

FREDERICKTOWNE LABS, INC.
3020 VENTRIE CT., PO BOX 245, MYERSVILLE, MD 21773
301-293-3340 OR FAX 301-293-2366

Phone Number: 301-797-64[illegible]

Email: nwolfe@trioeng.com

FTL Acct. No.: EWC0147

Project: Name & Address
Turkey Run

Collected By: (Please Print)
Erika Rundquist

Affiliation:
Trio Engineering

Field Sample ID	Site Description	Collection Date	Collection Time	Matrix DW/ WW	pH	Res. Cl	DO	Temp	Grab/ Comp	Analyses To Be Performed: Quant 2 DNA 18 HPB	Heter-Mixic Plate Count						Preservation
Well 13	Well MW-13 in Turkey Run	3/11/22	9:16	GW					G	✓	✓						
Spring	Middle of Pool	3/10/22	9:30	GW					G	✓	✓						

Relinquished By:	Date/Time	Received By:	Date/Time
(Print): Erika Rundquist	3/11/22	(Print): Nicole Daily	3/11/22
(Signature): Erika Rundquist	11:00	(Signature): Nicole Daily	1100
Relinquished By:	Date/Time	Received By:	Date/Time
(Print):		(Print):	
(Signature):		(Signature):	
Relinquished By:	Date/Time	Received By:	Date/Time
(Print):		(Print):	
(Signature):		(Signature):	

Treatment Devices Present: Yes ☐ No ☐

DescribeTreatment Device(s):

Lead & Copper Samples - Water Last Used:
Date: Time:

Method of Shipment: **Iced:** Yes ☐ No ☐

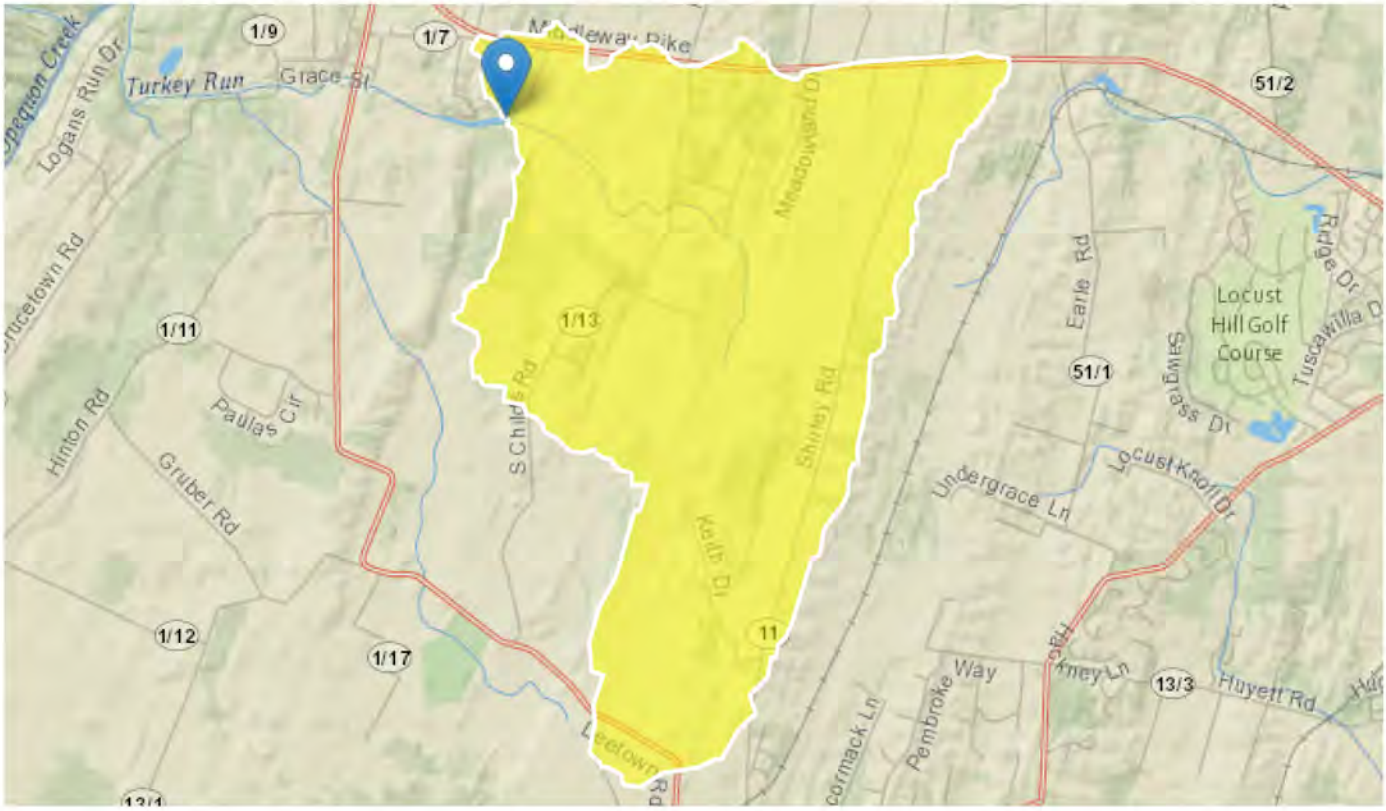
Condition of Sample(s) upon Receipt:
7.7°

Appendix F

USGS StreamStats Report

StreamStats Report

Region ID: WV
Workspace ID: WV20220331025204819000
Clicked Point (Latitude, Longitude): 39.30007, -77.97034
Time: 2022-03-30 22:52:26 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	98.8	percent
DRNAREA	Area that drains to a point on a stream	4.74	square miles
ELEV	Mean Basin Elevation	576	feet
ELEVMAX	Maximum basin elevation	667	feet
I24H2Y	Maximum 24-hour precipitation that occurs on average once in 2 years - Equivalent to precipitation intensity index	2.86	inches

Parameter Code	Parameter Description	Value	Unit
LAT_CENT	Latitude of Basin Centroid	39.285782	decimal degrees
LC06AGRI	Percent agriculture computed as total of grass, pasture, and crops, NLCD classes 71, 81 and 82	75.1	percent
LC06BARE	Percent of area covered by barren rock using 2006 NLCD	0	percent
LC06DEV	Percentage of land-use from NLCD 2006 classes 21-24	5.8	percent
LC06FORSHB	Percentage of forests and shrub lands, classes 41 to 52, from NLCD 2006	18.4	percent
LC06GRASS	Percent of area covered by grassland/herbaceous using 2006 NLCD	0.5	percent
LC06WATER	Percent of open water, class 11, from NLCD 2006	0	percent
LC06WETLND	Percent of area covered by wetland using 2006 NLCD	0.1	percent
LC11AGRI	Percent agriculture computed as total of grass, pasture, and crops, NLCD classes 71, 81 and 82	75.1	percent
LC11BARE	Percentage of barren from NLCD 2011 class 31	0	percent
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	5.8	percent
LC11FORSHB	Percentage of forests and shrub lands, classes 41 to 52, from NLCD 2011	18.8	percent
LC11GRASS	Percent of area covered by grassland/herbaceous using 2011 NLCD	0.2	percent
LC11WATER	Percent of open water, class 11, from NLCD 2011	0	percent
LC11WETLND	Percentage of wetlands, classes 90 and 95, from NLCD 2011	0.1	percent
LC16AGRI	Percent agriculture computed as total of grass, pasture, and crops, NLCD 2016 classes 71, 81 and 82	75.1	percent
LC16BARE	Percentage of barren from NLCD 2016 class 31	0	percent
LC16DEV	Percentage of land-use categories 21-24 from NLCD 2016	5.8	percent

Parameter Code	Parameter Description	Value	Unit
LC16FORSHB	Percentage of forests and shrub lands, classes 41 to 52, from NLCD 2016	18.5	percent
LC16GRASS	Percentage of grassland from NLCD 2016 class 71	0.3	percent
LC16WATER	Percent of open water, class 11, from NLCD 2016	0	percent
LC16WETLND	Percentage of wetlands, classes 90 and 95, from NLCD 2016	0.1	percent
LONG_CENT	Longitude Basin Centroid	77.953123	decimal degrees
LOWREG	Low Flow Region Number	1111	dimensionless
MINBELEV	Minimum basin elevation	510	feet
PRECPRIS00	Basin average mean annual precipitation for 1971 to 2000 from PRISM	40.02	inches
RELIEF	Maximum - minimum elevation	157	feet
SSURGODEP	Area-weighted average soil depth from NRCS SSURGO database	13.28	inches
SSURGOKSAT	Saturated hydraulic conductivity in micrometers per second from NRCS SSURGO database	0.114	micrometers per second
SSURGWATCP	Available water capacity of the top 60 inches of soil - determined from SSURGO data	1.843	inch per inch

General Flow Statistics Parameters [LowFlow Eastern Panhandle 2008 5105]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.74	square miles	4.55	1619
LC16DEV	Percent_developed_from_NLCD2016	5.8	percent	0	100
CARBON	Percent Carbonate	98.8	percent	0	100
LOWREG	Low Flow Region Number	1111	dimensionless	1111	1859

General Flow Statistics Flow Report [LowFlow Eastern Panhandle 2008 5105]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE
Harmonic Mean Streamflow	0.923	ft^3/s	43

General Flow Statistics Citations

Wiley, Jeffrey B.,2008, Estimating Selected Streamflow Statistics Representative of 1930–2002 in West Virginia: U.S. Geological Survey Scientific Investigations Report 2008-5105, 24 p. (http://pubs.usgs.gov/sir/2008/5105/)

Application Version: 4.8.1
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

Appendix G

Flow Model Results

Predicted Drawdown Calculations

Recharge Calculations

Turkey Run Flow Model Contour Map

Pumping MW-B at 1,200 gpm

Time elapsed: 1 Year

Not to Scale

Contour Interval: 0.1 foot Elevation

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Turkey Run Flow Model Contour Map

Pumping MW-B at 1,200 gpm

Time elapsed: 6 Years

Not to Scale

Contour Interval: 0.1 foot Elevation

TRIAD ENGINEERING, INC.

Turkey Run Flow Model Contour Map

Pumping MW-B at 1,200 gpm

Time elapsed: 12 Years

Not to Scale

Contour Interval: 0.1 foot Elevation

TRIAD ENGINEERING, INC.

Turkey Run Flow Model Contour Map

Pumping MW-B at 1,200 gpm

Time elapsed: 30 Years

Not to Scale

Contour Interval: 0.1 foot Elevation

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Turkey Run Flow Model Contour Map

Pumping MW-B at 2,000 gpm

Time elapsed: 1 Year

Not to Scale

Contour Interval: 0.1 foot Elevation

TRIAD ENGINEERING, INC.

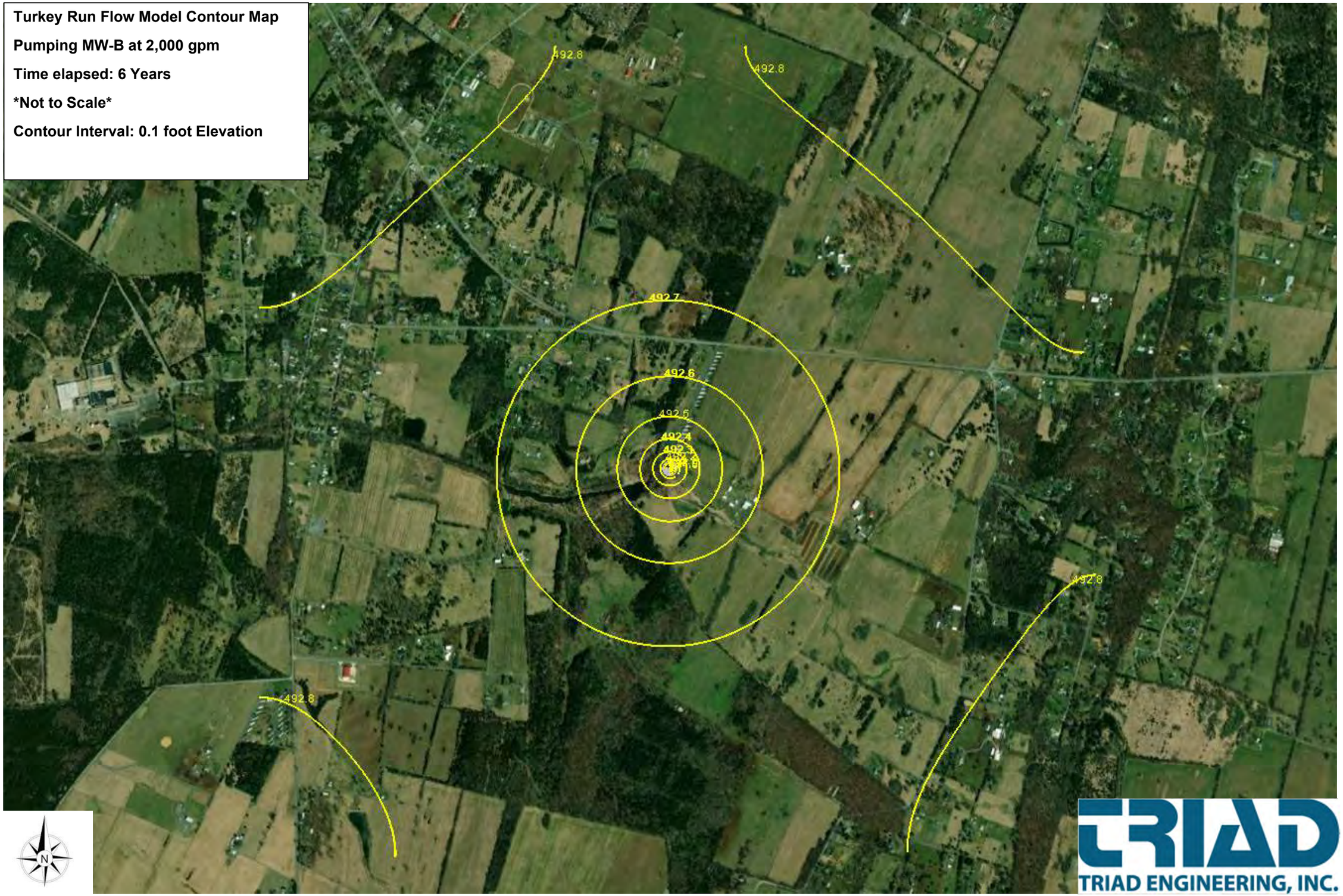
Turkey Run Flow Model Contour Map

Pumping MW-B at 2,000 gpm

Time elapsed: 6 Years

Not to Scale

Contour Interval: 0.1 foot Elevation



TRIAD ENGINEERING, INC.

Turkey Run Flow Model Contour Map

Pumping MW-B at 2,000 gpm

Time elapsed: 12 Years

Not to Scale

Contour Interval: 0.1 foot Elevation

TRIAD ENGINEERING, INC.

Turkey Run Flow Model Contour Map

Pumping MW-B at 2,000 gpm

Time elapsed: 30 Years

Not to Scale

Contour Interval: 0.1 foot Elevation

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Turkey Run Flow Model Contour Map

Pumping MW-B at 1,200 gpm

DROUGHT CONDITIONS

Time elapsed: 1 Year

Not to Scale

Contour Interval: 0.1 foot Elevation

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Turkey Run Flow Model Contour Map

Pumping MW-B at 2,000 gpm

DROUGHT CONDITIONS

Time elapsed: 1 Year

Not to Scale

Contour Interval: 0.1 foot Elevation

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Predicted Future Drawdowns

Turkey Run Spring
Middleway, WV

Modified Theis Equation
μ=r^2S/4Tt s=QW(μ)/4∏(T)

Withdraw Rates: 1,200 and 2,000 gpm

No Recharge

Parameters		Units		
Transmissivity (T) =	2,752,640	gpd/ft	368,000	ft^2/day
Storage Coefficient (S) =	2.88E-34	unitless		
Discharge Rate (Q) =	1,728,000	gpd	1,200	gpm
Discharge Rate (Q) =	2,880,000	gpd	2,000	gpm

	Time (t) =	**365 Days (1 Year)**			**Time (t) =**	**2190 Days (6 years)**			**Time (t) =**	**4380 Days (12 years)**			**Time (t) =**	**10,950 Days (30 years)**		
Distance r (ft)	10	100	1000	2000	10	100	1000	2000	10	100	1000	2000	10	100	1000	2000
μ	7.17E-42	7.17E-40	7.17E-38	2.87E-37	1.19E-42	1.19E-40	1.19E-38	4.78E-38	5.97E-43	5.97E-41	5.97E-39	2.39E-38	2.39E-43	2.39E-41	2.39E-39	9.55E-39
W(μ)	*94.16*	*89.56*	*84.95*	*83.56*	*95.96*	*91.35*	*86.75*	*85.36*	*96.65*	*92.04*	*87.44*	*86.05*	*97.56*	*92.96*	*88.35*	*86.97*
Drawdown in ft Q = 1.73 million gpd (1,200 gpm)	4.71	4.48	4.25	4.18	4.80	4.57	4.34	4.27	4.83	4.60	4.37	4.30	4.88	4.65	4.42	4.35
Drawdown in ft Q = 2.88 million gpd (2,000 gpm)	7.84	7.46	7.08	6.96	7.99	7.61	7.23	7.11	8.05	7.67	7.28	7.17	8.13	7.74	7.36	7.24

Italic and Red From Appendix 1; Fetter, 2001

Predicted Future Drawdowns

Turkey Run Spring
Middleway, WV

Modified Theis Equation
$\mu = r^2 S / 4Tt$ $s = QW(\mu)/4\pi(T)$

Withdraw Rates: 1,200 and 2,000 gpm

Drought Recharge

Parameters		Units			
Transmissivity (T) =	2,752,640	gpd/ft	368,000	ft^2/day	**Drought Year Recharge Rate:** 960.7 gpm
Storage Coefficient (S) =	2.88E-34	unitless			
Discharge Rate (Q) =	3,111,408	gpd	2,161	gpm	
Discharge Rate (Q) =	4,263,408	gpd	2,961	gpm	

	Time (t) =	**365 Days (1 Year)**		
Distance r (ft)	10	100	1000	2000
μ	7.17E-42	7.17E-40	7.17E-38	2.87E-37
W(μ)	*94.16*	*89.56*	*84.95*	*83.56*
Drawdown in ft Q = 1.73 million gpd (1,200 gpm)	8.47	8.06	7.65	7.52
Drawdown in ft Q = 2.88 million gpd (2,000 gpm)	11.61	11.04	10.48	10.30

Italic and Red From Appendix 1; Fetter, 2001

Date: 4/13/2022

Recharge Calculations: General Stream Stats

Basin Area: 4.73 square miles (3,027.21 acres)
Average Precipitation: ~40 inches per year
Drought Precipitation: ~24.57 inches (1930 i4weather.net)
Effective Recharge: 10 inches per year (0.8333 ft)(25%)
Effective Recharge During a Drought: 6.14 inches per year (0.5119 ft)(25%)
Available Recharge from Precipitation into the Basin: 2,522.675 acre/ft/year (822,017,300 gallons/year) (1,563.96 gpm)
Available Recharge from Precipitation into the Basin during a Drought: 1,549.62 acre/ft/year (504,945,900 gallons/year) (960.70 gpm)

Estimated withdraw:

- 1,200 gpm: 630,720,000 gallons per year: 24% less than recharge
- 2,000 gpm: 1,051,200,000 gallons per year: 28% greater than recharge

*Important to note this calculation only takes into consideration the precipitation that falls withing the topographical drainage basin. This calculation assumes no other discharges.