DOE/RL-2018-70
Revision 0

Optimization Pilot Test Results of Treating Water from Modular Storage Units at 200 West Pump & Treat Facility

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

U.S. DEPARTMENT OF ENERGY | Richland Operations Office

P.O. Box 550
Richland, Washington 99352

Approved for Public Release;
Further Dissemination Unlimited

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Terms

COC	contaminant of concern
MSU	modular storage unit
P&T	pump and treat
TDS	total dissolved solids
TSS	total suspended solids

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1 Introduction

The purpose of this report is to document the results of the test performed to evaluate treatment of water from the modular storage units (MSUs) at the Hanford Site 200 West pump-and-treat (P&T) facility. This optimization test was performed under the conditions specified in DOE/RL-2018-28, *Optimization Test Plan for Treating Water from Modular Storage Units at 200 West Pump & Treat Facility*.

In coordination with the U.S. Environmental Protection Agency , the optimization test assessed the effects of retaining well purgewater in the MSUs upon separation of suspended solids from groundwater removed from 200 West P&T injection wells during well redevelopment. Injection well development water contains a substantial quantity of suspended well fouling materials (e.g., biological residue and manganese dioxide). Passing the extracted water through the MSUs allows settling of the suspended solids, which was tested to provide a reliable, cost-effective means to remove well foulants that were previously recycled when spent cleaning solution was directly treated at the 200 West P&T. The test was performed to verify that MSU water can be treated to the required and appropriate cleanup levels while providing well fouling mitigation actions for optimizing the 200 West P&T operations consistent with EPA 542-R-13-2008, June 2013 guidance *Remediation Optimization: Definition, Scope and Approach*. The test focused on characterizing selected physical and chemical characteristics of the MSU water, with emphasis on contaminants of concern (COCs), optimization to mitigate well fouling and developing procedures for effective processing of purgewater.

SGW-61287, *Impact of Modutank Water on the 200 West Pump and Treat*; and SGW-61673, *Treatment of Modutank Water at 200 West Pump and Treat*, provide additional information on the background leading up to the optimization test.

2 Approach and Methods

This chapter provides information about the optimization test and describes selected aspects of the site where the test was performed and the approach that was used.

2.1 Site

The MSUs consist of two aboveground, open-top storage units that are 56 m (184 ft) on each side. Figure 2-1 shows a site plan of the MSUs. MSU #2 has 1.5 m (5 ft) walls, and MSU #3 has 1.8 m (6 ft) walls. The storage units are never completely emptied, and a water level of 15 to 30 cm (6 to 12 in.) is maintained in the MSUs to prevent wind from lifting the bottom. Likewise, a freeboard level of about 0.3 m (1 ft) is maintained to avoid windblown water from exiting the storage units. Purgewater from all Hanford Site well development and sampling activities is off-loaded in the southeast and southwest corners of each MSU. The purgewater contains sediment that is collected in the MSUs.

The MSUs are located approximately 8 km (5 mi) east of the 200 West P&T (Figure 2-2). The MSU water used for the optimization test was transferred in the initial stages of the test to the 200 West P&T by tanker trucks with a capacity of 7,570 to 9,460 L (2,000 to 2,500 gal). Tanker trucks will be augmented with a pipe to facilitate transfer and establish a permanent solution. A pipeline route is being designed that will connect the 200 West P&T to the MSUs. Although the MSU site and the 200 West P&T facility are about 8 km (5 mi) apart, the pipeline line will be about to 9.7 km (6 mi) in length due to the serpentine nature and to account for the pipe route. Tanker trucks will remain an option if trucking is necessary.

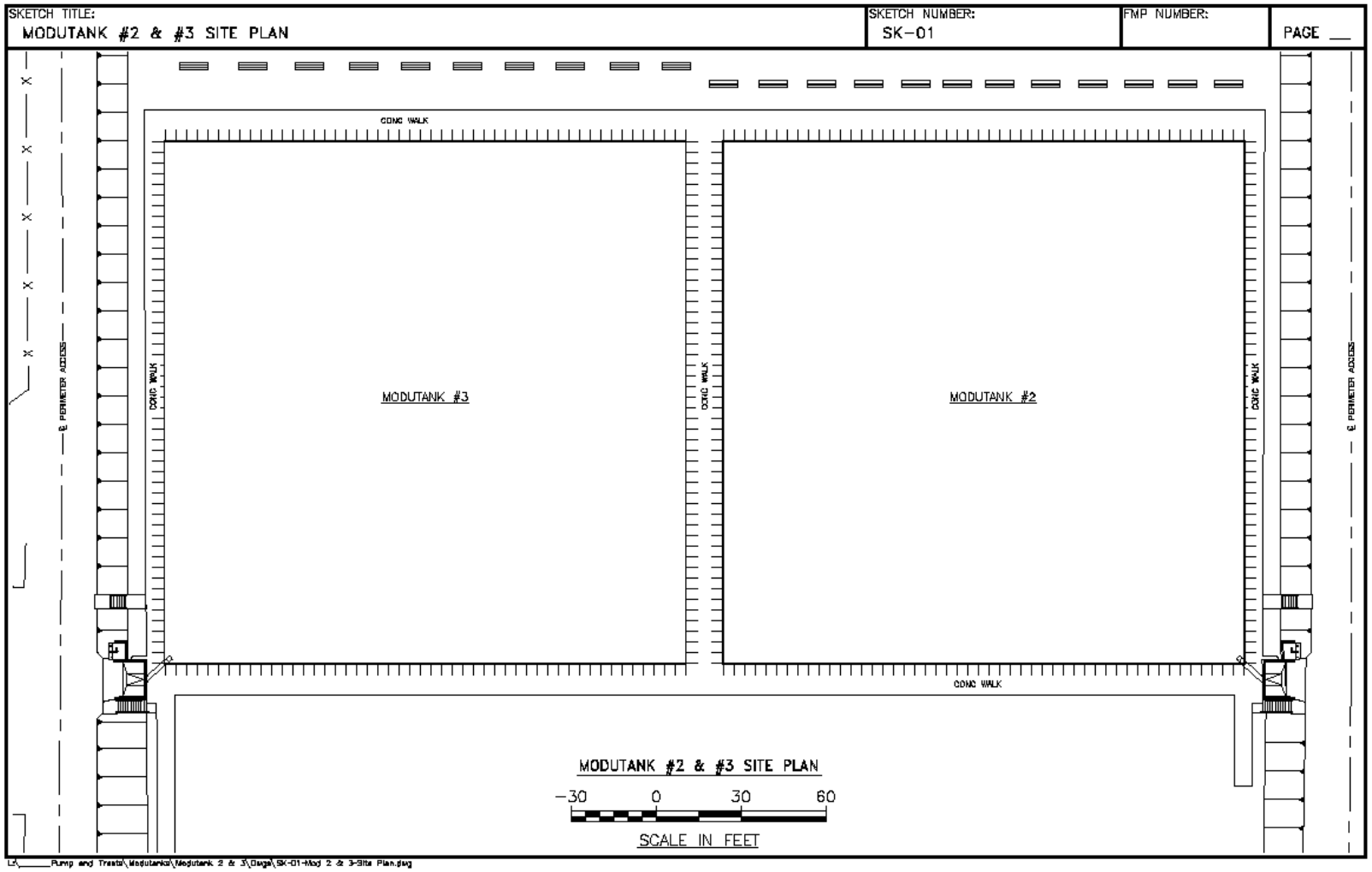

Figure 2-1. MSU #2 and MSU #3 Site Plan

Figure 2-2. Location of 200 West P&T and MSUs

2.2 Approach

The optimization test was coordinated with MSU sediment removal activities. Although sediment removal from the MSUs was not part of the pilot test, sediment removal was ongoing at the time and impacted the timing for the test. Figure 2-3 shows the general timeline of MSU operation and sampling and the 200 West P&T sampling. A sediment sample was collected on March 15, 2018 (well before the test began), to determine whether contaminants bound to the sediments could pose a treatment challenge at the 200 West P&T.

Sediment removal was initiated on May 14, 2018, at MSU #3 in advance of the pilot study. Water was transferred to MSU #2 to allow easier access to MSU #3 for sediment removal. On June 1, 2018, a sufficient amount of sediment was removed so water transfer from MSU #2 to MSU #3 was initiated in preparation for transferring MSU water to 200 West P&T. By June 4, the water transfer was complete, and MSU #3 was isolated from further input. A water sample was collected to characterize the water.

Between June 5 and June 14, 2018, 10,826.2 L (2,860 gal) of sodium hypochlorite was added to MSU #3, resulting in a chlorine residual of between 1.3 and 1.7 mg/L; the target residual was 0.5 to 3.0 mg/L. Table 2-1 lists the specific quantity and timing of the sodium hypochlorite addition.

On June 15, 2018, transfer to 200 West P&T began after concurrence from U.S. Department of Energy and U.S. Environmental Protection Agency. The MSU water was filtered before treatment through two banks of filters: one bank of four 25 µm pore-size filters, followed by one bank of eighteen 5 µm pore-size filters. In previous tests, filtration proved to be an effective means of removing iron, manganese, and zinc. With respect to spent cleaning solution, it was demonstrated that the metals concentration could not be filtered unless it was first taken to the MSUs. The high pH and high oxidation reduction potential in the MSUs provide the right conditions conducive to the removal of metals. In addition, sediment that is introduced with the water during transfer from the MSU would foul the tanker trucks and the future pipeline.

DOE/RL-2009-124, *200 West Pump and Treat Operations and Maintenance Plan*, designates the sampling and analysis methods that were used.

After the MSU water was deemed suitable for treatment, the water was pumped through a filter to fill a tanker truck. The MSU water was sampled before and after filtration to determine the need for filtration before transfer to the 200 West P&T.

The water was trucked to the 200 West P&T and placed into a 227,124.7 L (60,000 gal) (nominal) trench (Z-line) that feeds the recycle tank. This trench collects washdown water, rainwater, and well development water that is not sent to the MSUs. Figure 2-4 provides a schematic of the transfer process and pumping from the Z-line trench.

2018	March	April	May	June								July		
General Operations			5/14/18 Started First Campaign of Sediment Removal MSU #3	6/1/18 Decant Water/Solids MSU #3	6/1/18 Completed 1st Sediment Removal	6/4/18 Filled MSU #3 w/ Water from MSU #2	6/4/18 Isolated MSU #3 for Sampling	6/5/18 Started Adding Chlorine to MSU #3	6/14/18 Received Concurrence to Begin Pumping Water	6/15/18 Processed ~32,000 gal	6/24/18 Processed ~117,500 gal	7/10/18 Processed 154,000 gal		
MSU Sampling				6/5/18 Samples Collected from MSU #3	6/6/18 Lab Receives Sample MSU #3	6/13/18 Lab Results Received. No Anomolies						7/2/18 MSU #3 Samples Collected Before/After Filtration	7/11/18 MSU #3 Samples Collected Before/After Filtration	7/27/18 Removed ~ 50 cu yrd of Sediment w/ Clamshell
200 West Sampling				6/19/19 Plant Profile Sampling at 200W Before MSU Water Introduced	6/27/19 Sampled for COC Compliance at 200W P&T							7/5/19 Plant Profile Sampling at 200W	7/11/19 Plant Profile Sampling at 200W	
Sediment Sampling	3/15/18 Sediment Sample MSU #3													

Note: MSU = Modular Storage Unit
COC = Contaminant of Concern
P&T = Pump and Treat

Figure 2-3. Timeline for MSU Pilot Test

Table 2-1. Specifics of Sodium Hypochlorite Addition to MSU #3, June 5 Through June 14, 2018

Date	Totes Added	Quantity of 12.5% Sodium Hypochlorite Added (gal)	Equivalent Dose of MSU Water (mg Cl_2/L)	Measured Residual (mg/L)	Observations
June 5, 2018	2	550	55	0.2	Water turned green
June 11, 2018	4	1,320	132	No measurement	No change to color
June 12, 2018	1	330	33	0.86 to 1.01	No change to color
June 14, 2018	2	660	66	1.26 to 1.7	Water clear
Total	**9**	**2,860**	**286**		

MSU = modular storage unit

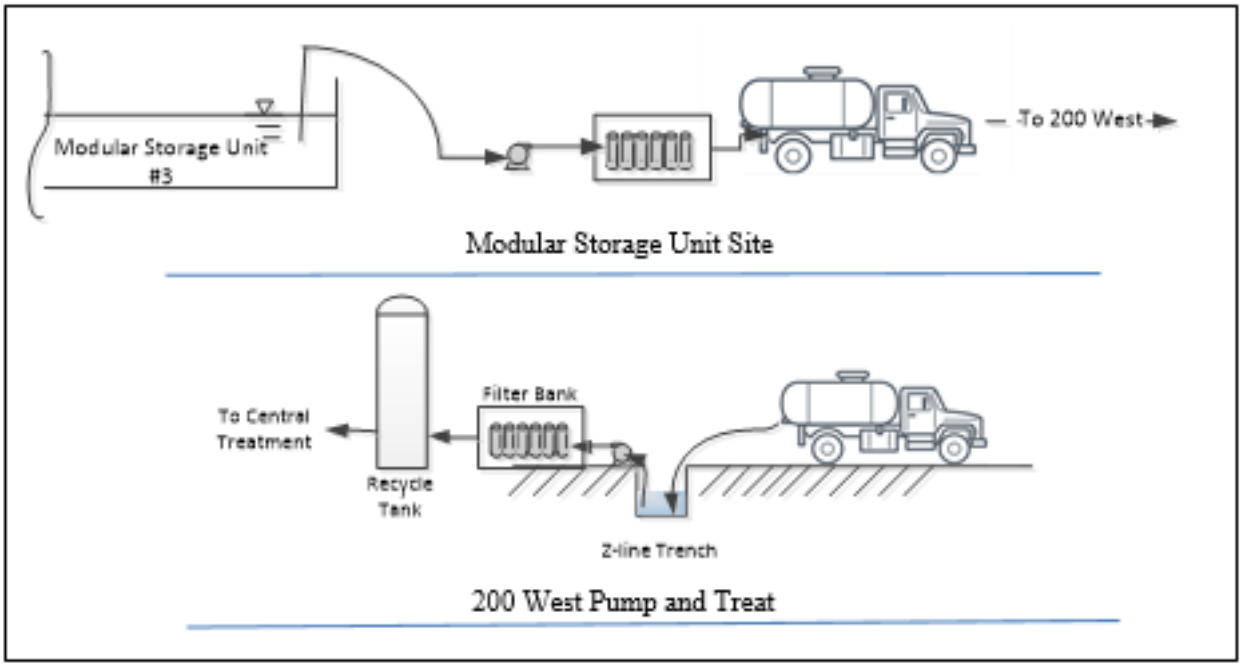

Figure 2-4. Schematic of Truck Transfer from MSUs to the 200 West P&T

The water was pumped through two banks of filters (25 µm, followed by 5 µm pore size) into a tanker truck to remove suspended solids. The tanker truck emptied into the Z-line trench, and the water was then pumped from the Z-line trench to the recycle tank. The installed equipment allows water to be pumped from the Z-line trench at a constant rate, between 38 and 568 L/min (10 and 150 gal/min).
The recommended flow rate is calculated from the specific blend ratio described in Section 3.4.

As water was removed from MSU #3, some of the sediment began to be exposed (Figure 2-5). The sediment areas above the water level were wetted with utility water to prevent windblown dust from exiting the unit. The MSU #3 was sampled on July 10, 2018, while the sediment was being leveled to determine whether this process would cause concentrations to increase.

Figure 2-5. MSU #3 Showing Sediment Exposed by Water Removal

2.3 Methods

All samples were collected and analyzed following the procedures described in the 200 West P&T Sampling and Analysis Plan (DOE/RL-2009-124, Appendix D). The analyses were performed in accordance with the quality assurance plan found in the same document.

3 Analytical Results

The results presented in this chapter are organized into three sections: the results of sampling MSU water, the results of sampling MSU sediment, and the results of sampling at the 200 West P&T. The MSU sampling provides insight regarding the nature of the water and sediment in the MSUs from which recommendations can be derived for sampling and handling the water. Sampling at the 200 West P&T provides assurance that the treatment processes operated as expected during the MSU treatment without impact to the treatment system operations and subsequent re-injection of water into the aquifer. The treated water from 200 West met all cleanup levels.

3.1 Modular Storage Unit Water

Three samples were collected during the optimization testing of MSU water. The first sample was collected before transfer of MSU #3 water to verify that the water was treatable at the 200 West P&T; the other two samples were collected while the water was being transferred to the 200 West P&T. Table 3-1 shows the concentration of key contaminants during the test. Appendices A through C of this document present the entire data files for each sampling date. Most of the contaminants are below the threshold of concern for treatment at the 200 West P&T.

A few constituents in the MSU exceeded the concentrations that can be treated at 200 West P&T. Within the MSUs the groundwater contaminants are concentrated by evaporation and other activities to levels that require blending prior to treatment. The concentration of total dissolved solids (TDS) is the limiting ratio in blending. The treatment remedy cannot successfully treat more than 500 mg/L TDS compared to the concentration in MSU #3 on July 10, 2018 of 2,680 mg/L. The TDS concentration must be managed by beneficial blending, consistent with the approach used with the extraction wells (DOE/RL-2008-78) and as described in the MSU Optimization Test Plan (DOE/RL-2018-28). When the blend ratio is adjusted for TDS the other constituents such as iodine-129 and manganese will be well below the maximum concentration allowable in the feed stream. The water is blended in the recycle tank and is not expected to pose any treatment challenges. Section 3.4 provides greater detail on blend ratios.

Understanding the chemistry in the MSUs is an important aspect of this pilot test, and several observations helped to provide a better understanding. The concentrations of many salts (e.g., sulfate and TDS) increase over time. Some of the increase is a result of evaporation. Historical records indicate that evaporation increases dissolved solids concentration by about 15% a month through the summer. In addition to evaporation, the copper sulfate and sodium hypochlorite added for algal and bacterial control contributed to the increases in sulfate and TDS concentration.

Historically, strontium-90 has been present in MSU water at concentrations as high as 30 pCi/L. The cleanup level for strontium-90 is covered by a limit of 4 mrem/yr based on total beta/gamma emissions. There are over 150 beta emitters. Beta emitters that have been detected at Hanford and the activity corresponding to 4 mrem/year to the body include the following:

- Strontium-90; 8 pCi/L
- Cobalt-60; 100 pCi/L
- Cesium-137; 200 pCi/L

Of these, strontium-90 is the most potent. Cobalt-60 and cesium-137 were both below detection in the MSUs in 2018. No other beta emitters are expected to be present in the operable units.

200 West P&T has limited ability to remove strontium. Although the strontium-90 activity was generally low, an increasing trend was observed in the MSUs, from 0.9 to 4 pCi/L from June to July 2018. The cause of the increase was of interest, given the limited ability of the 200 West P&T to remove strontium. The concentration increased, in part, because evaporation was concentrating all dissolved solids and, in part, because the water chemistry had changed. Strontium, like calcium, has a valence of +2 and forms insoluble carbonates. The removal of algae (to aid filtration) resulted in the pH decreasing from 9.1 to about 8.0, thereby decreasing the concentration of solid-phase carbonates and causing a shift in strontium species from $SrCO_3$ (insoluble) to Sr^{+2} (soluble). This phenomenon also occurred with calcium, causing the calcium concentration to increase from 22.4 to 44.9 mg/L. Algal activity assists in maintaining strontium and calcium in an insoluble state.

Table 3-1. COCs in Water from MSU #3

Contaminant	Unit	MCL or Cleanup Level	Maximum Concentration Allowable in Feed to 200 West P&T [a]	June 5, 2018, Before Pumping, Before Chlorine Addition	July 2, 2018, to 200 West P&T	July 10, 2018, to 200 West P&T	Comment
Strontium-90 [b]	pCi/L	8 [c]	8	0.928	2.23	4.06	Below concentration of concern.
Cobalt-60	pCi/L	100 [c]	100 [d]	<5.77	<5.77	<5.77	Below concentration of concern.
Uranium	µg/L	30	34 [d]	0.665	1.36	1.51	Below concentration of concern.
Technetium-99	pCi/L	900	500 [e,d]	<40	<40	<40	Below concentration of concern; below detection.
Arsenic	µg/L	10	12	5	<5	<5	Below concentration of concern; below detection.
cis-1,2-Dichloroethene	µg/L	70	7,000	<0.3	<0.3	<0.3	Below detection; below concentration of concern.
Gross alpha	pCi/L	15	17	<1.41	<1.41	<1.41	Below detection, below concentration of concern.
Sulfate	mg/L	250 [f]	250	100	110	140	Below concentration of concern.
Manganese	µg/L	50[f]	50	91.3	116	134	The blend ratio must be controlled to avoid excess manganese concentrations in effluent.
Carbon tetrachloride	µg/L	3.4	17,000	<0.3	0.39	0.49	Below concentration of concern.
Chromium (total)	µg/L	100	220	1.05	1.35	1.17	Below concentration of concern.

Table 3-1. COCs in Water from MSU #3

Contaminant	Unit	MCL or Cleanup Level	Maximum Concentration Allowable in Feed to 200 West P&T [a]	June 5, 2018, Before Pumping, Before Chlorine Addition	July 2, 2018, to 200 West P&T	July 10, 2018, to 200 West P&T	Comment
Hexavalent chromium	µg/L	48	170	<1.5	<1.5	<1.5	Below detection; below concentration of concern.
Nitrate as nitrogen	mg/L	10	44	<0.028	0.89	<2.8	Below concentration of concern.
Trichloroethene	µg/L	1	19	<0.3	<0.3	<0.3	Below detection; below concentration of concern.
Iodine-129	pCi/L	1	1.0	4.05	1.75	2.82	The blend ratio must be controlled to avoid excess concentrations in effluent.
Tritium	pCi/L	20,000	20,000	3,370	3,520	3,480	Below concentration of concern.
Total cyanide	µg/L	200	200 [g]	<1.67	<1.67	<1.67	Below concentration of concern.
Chloroform	µg/L	70 [h]	5,600	<0.9	95.6	99.2	Below concentration of concern.
pH	unitless	6.5 to 9.5	>6.0, <7.8 [i]	9.1	7.91	8.3	The blend ratio must be controlled to avoid impact to the facility.
Total dissolved solids	mg/L	500 [f]	500	801	2,350	2,680	The blend ratio must be controlled to avoid excess concentrations in effluent.
Total suspended solids	mg/L	No limit [j]	100 [k]	50	0.65	2.0	

Notes: Table cell highlighted in yellow indicates that the total dissolved solids concentration limited the blending ratio and was managed by careful blending of MSU water with well water at the treatment facility.

Table 3-1. COCs in Water from MSU #3

Contaminant	Unit	MCL or Cleanup Level	Maximum Concentration Allowable in Feed to 200 West P&T [a]	June 5, 2018, Before Pumping, Before Chlorine Addition	July 2, 2018, to 200 West P&T	July 10, 2018, to 200 West P&T	Comment

The detection limit for isotopes was as stated in the reports provided by the laboratory. The detection limits often varied from sample to sample.

a. Unless otherwise noted, the maximum allowed was calculated as follows: Cleanup level ÷ (1-% Removal). Values assume that the ion-exchange system is bypassed. If concentrations exceed the maximum concentration listed, water may need to be introduced to the ion-exchange system. Maximum allowable in feed to the ion-exchange system is found in SGW-59872, *Feed Stream Acceptance Criteria for 200 W Pump and Treat*.

b. Strontium-90 was measured as total radiostrontium.

c. Covered by the MCL of 4 mrem/yr for beta particles and photon radioactivity from manmade radionuclides in drinking water. Value shown for pCi/L is assumed to yield 4 mrem/yr.

d. Assumes that water is not treated using ion-exchange resin.

e. Although the cleanup level is 900 pCi/L, an ion-exchange effluent goal of 500 pCi/L has been adopted to avoid any possibility of contaminating the downstream biological plant.

f. These are secondary standards and are not mandatory guidelines. High sulfate concentrations cause a salty taste in water. Manganese causes black staining and a bitter metallic taste.

g. Assumes cyanide in the form of ferrocyanide, which is the form used at the Hanford Site. The MTCA Method B (WAC 173-340-705, "Model Toxics Control Act—Cleanup," "Use of Method B") limit for free cyanide is 4.8 µg/L.

h. Chloroform is regulated as one of four trihalomethanes that are byproducts of water chlorination. The sum of chloroform, bromoform, dichlorobromomethane, and dibromochloromethane is identified as total trihalomethanes and is regulated by an MCL of 80 µg/L. Chloroform is typically the dominant trihalomethane and has an MCL goal of 0.07 mg/L.

i. The pH limit is based on an engineering assessment of where pH will begin to interfere with treatment. If the pH is between 6.0 and 7.8, the water can be treated by the 200 West P&T without interfering with treatment.

j. There is no drinking water limit for suspended solids. Instead drinking water has a turbidity limit.

k. The treatment processes at 200 West P&T can remove more TSS but the cartridge filters may require frequent changes. A value of 100 is an engineering estimate based on a manageable changeout frequency.

MCL = maximum contaminant level

P&T = pump and treat

MTCA = Model Toxics Control Act

TSS = total suspended solids

Increases in manganese and uranium are likely attributed to activities conducted to level the peaks of sediment that were exposed as the water level decreased. Both of these compounds are typically oxidized to insoluble forms in the presence of sodium hypochlorite (Meinrath, 1994, *Aquatic Chemistry of Uranium – A Review Focusing on Aspects of Environmental Chemistry*; Hao et al., 1991, "Kinetics of Manganese(II) Oxidation with Chlorine"); however, both compounds increased in concentration. Uranium increased 127% (from 0.665 to 1.51 µg/L), and manganese increased 47% (from 91.3 to 134 µg/L). The aquatic chemistry of uranium has been well studied and in aquatic systems is stable as (U^{+4} and U^{+6}), but U^{+6} is extremely insoluble. When sodium hypochlorite is applied, the uranium species shifts to U^{+6} and the concentrations are expected to decrease. However, the concentration was observed to increase, and some uranium is believed to have been released from the sediment (see discussion in Section 3.2).

Chloroform concentrations increased from below detection to nearly 100 µg/L. The source is likely the reaction between chlorine and naturally occurring organic materials in the MSUs. Organic decay products from material such as leaf litter and algal growth include large humic acid molecules that react with chlorine to form chloroform (Rook, 1977, "Chlorination Reactions of Fulvic Acids in Natural Waters"). The increase in chloroform did not impact the water treatment process and chloroform was below detection in treated effluent.

3.2 Modular Storage Unit Sediment

The sediment, which had been accumulating for about 10 years, was sampled in MSU #3 on March 15, 2018. A laboratory analysis was performed to determine the size distribution of the solids in the sediment (Figure 3-1) and the contaminants present. Uranium was present at about 1.77 pCi/g as uranium-234 and uranium-238, or 2.64 µg of uranium per gram of sediment. Based on sediment volume estimates in the unit before sediment removal, 548 g of uranium were present in the solid-phase material. If this amount of uranium was released into the water, it would be enough to increase the uranium concentration to 144 µg/L and the water would need to be diverted to the ion exchange system rather than the central treatment plant. Much of the uranium has since been removed with the sediment. However, this infers that much of the uranium was sequestered in the sediment and a small amount was released when the sediment was leveling to keep it wet.

Manganese is also present in the sediment, calculated at 43.6 kg. A concentration of 11,500 µg/L would result if this amount of manganese were released into the water. Manganese is expected to be present in the MSUs primarily as precipitated, solid-phase manganese dioxide and/or manganese carbonate.

These metals become trapped in the sediment at the relatively high pH and high reduction-oxidation conditions resulting from algal activity in the MSU system. The testing and associated analytical results suggest that algae should be maintained until starting the preparations for water transfer. Chlorine should be added to reduce the concentrations of dissolved iron and manganese and solids from the algae and bacteria a week or two before the transfer occurs. Sediment leveling is acceptable and did not result in much release of uranium or manganese.

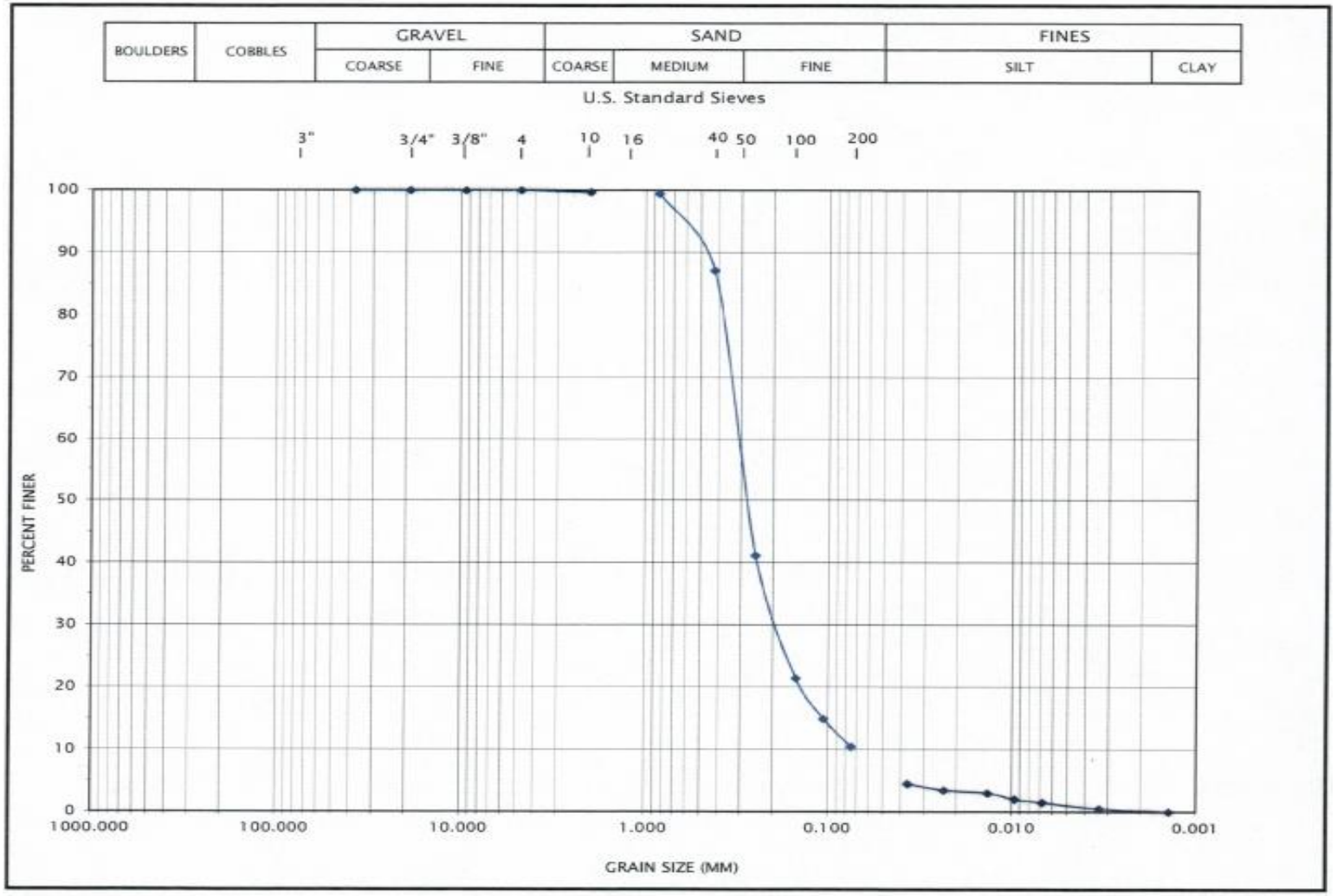

Figure 3-1. Particle-Size Distribution of Sediment in MSU #3, March 2018

3.3 Filtration of Modular Storage Unit Water

On July 2 and July 10, 2018, samples were collected before and after filtration as the water was pumped to the tanker truck. Samples were collected at the influent to the filter skid and at the effluent from the filter skid, so the filtered water had passed through both the 25 µm and 5 µm pore-size cartridges. The data show that the filters were not removing much of the solids, and the results were varied (Table 3-2). In many cases for both July 2 and July 10, the filtered and unfiltered results were quite similar in magnitude and would be considered acceptable duplicate results if they had been submitted as duplicates. Samples within 20% of each other should be considered not being significantly different.

Table 3-2. Effect of Filtration on Analytes of Interest in MSU #3

Contaminant	Unit	July 2, 2018, Before Filtration [a]	July 2, 2018, After Filtration [a]	July 10, 2018, Before Filtration	July 10, 2018, After Filtration
Strontium-90 [b]	pCi/L	2.23	2.01	4.06	1.49
Cobalt-60	pCi/L	<5.77	<5.77	<5.77	<5.77
Uranium	µg/L	1.36	1.46 [a]	1.51	1.49
Technetium-99	pCi/L	<40	<40	<40	<40
Arsenic	µg/L	<5	<5	<5	<5
cis-1,2-Dichloroethene	µg/L	<0.3	<0.3	<0.3	<0.3
Gross alpha	pCi/L	<1.41	<1.41	<1.41	<1.41
Sulfate	mg/L	110	120 [a]	140	130
Manganese	µg/L	116	137 [a]	134	116
Iron	µg/L	45.7	114 [a]	34	30
Aluminum	µg/L	<68	<68	<68	<68
Carbon tetrachloride	µg/L	0.39	0.41 [a]	0.49	0.57
Chromium (total)	µg/L	1.35	1.18	1.17	<1
Hexavalent chromium	µg/L	<1.5	<1.5	<1.5	<1.5
Nitrate as nitrogen	mg/L	0.89	0.87	<2.8	0.13
Trichloroethene	µg/L	<0.3	<0.3	<0.3	<0.3
Iodine-129	pCi/L	1.75	1.52	2.82	2.33
Tritium	pCi/L	3,520	3,540 [a]	3,480	3,300
Total cyanide	µg/L	<1.67	2.22 [a]	<1.67	<1.67
Chloroform	µg/L	95.6	95.1	99.2	5.89
pH	unitless	7.91	7.87	8.3	8.05
Total dissolved solids	mg/L	2,350	2,320	2,680	2,680

Table 3-2. Effect of Filtration on Analytes of Interest in MSU #3

Contaminant	Unit	July 2, 2018, Before Filtration [a]	July 2, 2018, After Filtration [a]	July 10, 2018, Before Filtration	July 10, 2018, After Filtration
Total suspended solids	mg/L	0.65 [c]	1.48 [a,c]	2.0 [c]	5.6
Dissolved oxygen	mg/L	7.49	7.31	9.05	9.26
Carbonate and bicarbonate alkalinity as $CaCO_3$	mg/L as $CaCO_3$	259	259	300	303
Vanadium	µg/L	3.83	4.51 [a]	4.12	4.43

Notes: Table cell highlighted in yellow indicates that the total dissolved solids concentration limited the blending ratio and was managed by careful blending of MSU water with well water at the treatment facility.

The detection limit for isotopes were as stated in the reports provided by the laboratory. The detection limits often varied from sample to sample.

Samples were collected on the filter skid prior to filtration and after filtration by both the 25 µm and 5 µm pore-size cartridges.

a. In many cases, the July 2, 2018 values for the filtered sample are greater than those for the unfiltered sample. This is especially true for iron. CH2M HILL Plateau Remediation Company believes the sample bottles may have been switched in the field. Samples within 20% of one another can be considered duplicates.

b. Strontium-90 was measured as total radiostrontium.

c. Values are greater than the detection limit and less than the quantification limit.

MSU = modular storage unit

The data from July 2 suggest an increase in iron concentration after filtration and suggest a sampling issue. Both the magnitude of the difference in iron concentration before and after filtration, and the number of analytes that were measured at greater concentration after filtration, led the CH2M HILL Plateau Remediation Company team to conclude that the sample bottles for filtered and unfiltered samples were switched. This sampling issue does not impact implementation decisions, conclusions, or recommendations.

The total suspended solids (TSS) were low before and after filtration. On July 2, 2018, TSS were below the method quantification limit both before and after filtration. On July 10, 2018, the TSS was less than the quantification limit of 2.5 mg/L before filtration and 5.6 mg/L after filtration. The low concentration of TSS before filtration leads to the following interpretation. The sodium hypochlorite formed solids that precipitated over the course of several days. This is corroborated by observations of the water clarity several days after chlorine was added. After the solids settled out, little remained to be filtered. This raises the question whether it is necessary to filter the water before transfer to the 200 West P&T. From an engineering standpoint, it is prudent to filter the water to avoid introducing solids either to the pipeline or to the 200 West P&T Z-line trench sump; however, it is not necessary to filter down to 5 µm pore size. The particle-size analysis (Section 3.2) indicated that 85% of the solids are larger than 100 µm, and a pore size of 100 µm or smaller will provide sufficient filtration to keep sand and sediment out of the pipeline.

3.4 Samples from the 200 West Pump and Treat

The effluent from the 200 West P&T was evaluated to verify that the facility was meeting cleanup levels. In accordance with the optimization test plan (DOE/RL-2018-28), the 200 West P&T effluent was sampled four times: once before MSU treatment began, twice while treating MSU water, and once after the MSU water was treated. The effluent data (Table 3-3) show that, in all cases, the effluent concentrations were less than the cleanup levels. Appendices D through G present all of the data from the 200 West P&T evaluation.

The rate that MSU water was introduced to the facility was carefully managed to meet the acceptance criteria. In particular, TDS was carefully managed by using an appropriate blend ratio. The ratio of MSU water flow to the balance-of-plant flow was determined by the concentration of TDS in the MSU, the discharge limits, and the typical effluent TDS concentration when MSU water is not being treated. The following formula was used:

$$Blend\ Ratio\ of\ MSU\ water = \frac{Effluent\ limit - Effluent\ concentration\ without\ MSU\ water}{Concentration\ in\ MSU - Effluent\ limit}$$

For example, on July 10, 2018 the blend ratio was calculated as follows:

- Effluent limit = 500 mg/L
- 200 West P&T effluent concentration without MSU water = 451 mg/L (data from June 18, 2018 used)
- Concentration in MSU on July 10, 2018 = 2,680 mg/L

The blend ratio of MSU water is calculated as follows:

$$Blend\ Ratio\ of\ MSU\ water = \frac{500 - 451}{2{,}680 - 500} = 0.0225$$

When the blend ratio of MSU water is adjusted for TDS, other constituents such as iron and manganese meet their respective blend ratios. TDS has the lowest blend ratio of 0.0225. At 7,570 L/min (2,000 gal/min) of plant flow, the MSU water flow must be controlled to 170 L/min (45 gal/min) or less (7,570 L/min [2,000 gal/min] × 0.0225 = 170 L/min [45 gal/min]). The blend ratio for manganese and iodine-129 were calculated to be 0.12 and 0.27 respectively. The blend ratio for TDS is smallest and controls the flow of MSU water. To be conservative, a blend ratio of 0.0225 is recommended for planning purposes. The blend ratio was checked prior to transfer using updated MSU concentrations. For future transfers the blend ratio should be calculated so that the blended influent to 200 West P&T meets the acceptance criteria.

3.5 Plant Profiles

The plant was profiled to determine if the introduction of MSU water impacted performance of the 200 West P&T. As summarized in Tables 3-3 through 3-7, the data indicate no impact on treatment.

Table 3-3. Concentrations of COCs in 200 West P&T Effluent

Contaminant	Unit	MCL or Cleanup Level	June 18, 2018, Before MSU Treatment Started	July 5, 2018, While MSU Water Being Pumped [a]	July 11, 2018, While MSU Water Being Pumped [b]	September 6, 2018, Concentration in Effluent After Finishing Treatment of MSU Water
Strontium-90	pCi/L	8 [c]	<1.48	<1.22	<1.21	<0.93
Cobalt-60	pCi/L	100 [c]	<6.81	<9.09	<11.0	<11.0
Uranium	µg/L	30	0.858	0.921	0.880	1.05
Technetium-99	pCi/L	900	103	103	85.2	89.2
Arsenic	µg/L	10	<5	<5	<5	<5
cis-1,2-Dichloroethene	µg/L	70	<0.3	<0.3	<0.3	<0.3
Gross alpha	pCi/L	15	2.96	2.23	<1.41	2.5
Carbon tetrachloride	µg/L	3.4	<0.3	<0.3	<0.3	<0.3
Chromium (total)	µg/L	100	4.82	3.23	2.19	3.47
Hexavalent chromium	µg/L	48	5.1	2.2	1.6	3.50
Nitrate as nitrogen	mg/L	10	12	6.3	5.8	6.5
Trichloroethene	µg/L	1	<0.3	<0.3	<0.3	<0.3
Iodine-129	pCi/L	1	<1	<1	<1	<1
Tritium	pCi/L	20,000	2,580	4,330	2,720	2,780
Total cyanide	µg/L	200 [d]	<1.67	<1.67	7.3	<1.67
Free cyanide	µg/L	4.8 [d]	<1	<3	7.8	<3
Chloroform [e]	µg/L	70	<0.3	<0.3	<0.3	<0.3
Sulfate	mg/L	250 [f]	86	110	110	120
Manganese	µg/L	50 [f]	27	47.1	29.3	24.9

Table 3-3. Concentrations of COCs in 200 West P&T Effluent

Contaminant	Unit	MCL or Cleanup Level	June 18, 2018, Before MSU Treatment Started	July 5, 2018, While MSU Water Being Pumped [a]	July 11, 2018, While MSU Water Being Pumped [b]	September 6, 2018, Concentration in Effluent After Finishing Treatment of MSU Water
pH	unitless	6.5 to 9.5	7.02	7.05	7.15	6.9 [g]
Total dissolved solids	mg/L	500 [f]	451	437	421	401
Alkalinity	mg/L as $CaCO_3$	No limit	106	120	120	112
Langelier Saturation Index [h]	mg/L as $CaCO_3$	No limit	-0.87	-0.74	-0.67	-1.1
Total suspended solids [i]	mg/L	No limit	<0.57	<0.648	<0.57	<0.57

Notes: Table cell highlighted in yellow indicates that the total dissolved solids concentration limited the blending ratio and was managed by careful blending of MSU water with well water at the treatment facility.

The detection limit for isotopes were as stated in the reports provided by the laboratory. The detection limits often varied from sample to sample.

a. Plant flow averaged 5,602 L/min (1,480 gal/min) and Z-line trench pump rate was 114 L/min (30 gal/min).

b. Plant flow averaged 5,400 L/min (1,400 gal/min) and Z-line trench pump rate was 38 L/min (10 gal/min).

c. The MCL is derived from a limit of 4 mrem/yr for beta particles and photon radioactivity from manmade radionuclides in drinking water. Value shown for pCi/L is assumed to yield 4 mrem/yr.

d. Assumes cyanide in the form of ferrocyanide, the most common form observed to date.

e. Chloroform is regulated as one of four trihalomethanes. The sum of chloroform, bromoform, dichlorobromomethane, and dibromochloromethane is regulated by an MCL of 80 µg/L. Chloroform is typically the dominant trihalomethane and has an MCL goal of 0.07 mg/L.

f. These are secondary standards and are not mandatory guidelines. High sulfate concentrations cause a salty taste in water. Manganese causes black staining and a bitter metallic taste. Total dissolved solids can stain and introduce a salty taste.

g. Readings from online instrumentation reported in lieu of field sample that read low (6.61). Online instrumentation is believed to be correct because a large body of pH data indicate that the pH is greater than that read by the field instrumentation.

h. The Langelier Saturation Index is a measure of the potential for calcium carbonate to scale solid surfaces such as well screens. Positive values indicate a potential to precipitate calcium carbonate. Negative values indicate that calcium carbonate is undersaturated and is not expected to cause scaling.

i. Suspended solids can clog well screens.

MCL = maximum contaminant level

MSU = modular storage unit

Table 3-4. COCs at the 200 West P&T Facility Before Treating MSU Water (June 18, 2018)

Contaminant	Unit	MCL or Cleanup Level	Maximum Concentration Allowable in Feed to 200 West P&T [a]	Influent Tank	FBR-A Effluent	FBR-B Effluent	Aerated Membrane Tank Effluent	Final Treated Water
Strontium-90	pCi/L	8 [b]	8 [b]	<1.17	<1.17	<1.17	<1.17	<1.17
Cobalt-60	pCi/L	100 [b]	100 [b]	<6.81	<8.41	<8.27	<8.27	<6.81
Uranium	µg/L	30	34 [c]	1.06	1.1	1.05	0.92	0.858
Technetium-99	pCi/L	900	500 [d]	107	101	89.3	72.5	103
Arsenic	µg/L	10	12	<5	<5	<5	<5	<5
cis-1,2-Dichloroethene	µg/L	70	7,000	<0.3	<0.3	<0.3	<0.3	<0.3
Gross alpha	pCi/L	15	17	4.42	3.91	4.9	2.32	2.96
Sulfate	mg/L	250 [e]	250	63	64	63	64	86
Manganese	µg/L	50 [e]	50	<2	23.1	20.9	35.3	27
Carbon tetrachloride	µg/L	3.4	17,000	443	245	277	23.8	<0.3
Chromium (total)	µg/L	100	220	25	23.3	45.8	4.58	4.82
Hexavalent chromium	µg/L	48	170	24	18	30	5.8	5.1
Nitrate as nitrogen	mg/L	10	44	31	0.19	1.4	10	12
Trichloroethene	µg/L	1	19	3.71	1.71	2.32	0.37	<0.3
Iodine-129	pCi/L	1	1.0	<1	<1	<1	<1	<1
Tritium	pCi/L	20,000	20,000	2,660	2,730	3,080	2,700	2,580
Total cyanide	µg/L	200	200 [f]	<1.67	<1.67	<1.67	<1.67	<1.67
Free cyanide	µg/L	4.8	4.8	<1	<1	<1	<1	<1
Chloroform	µg/L	70 [g]	5,600	5	7.75	7.86	2.69	<0.3
pH	unitless	6.5 to 9.5	>6.0, <7.8 [g]	7.43	6.90	6.93	7.63	7.02
Total dissolved solids	mg/L	500 [e]	500	434	351	363	396	451

Table 3-4. COCs at the 200 West P&T Facility Before Treating MSU Water (June 18, 2018)

Contaminant	Unit	MCL or Cleanup Level	Maximum Concentration Allowable in Feed to 200 West P&T [a]	Influent Tank	FBR-A Effluent	FBR-B Effluent	Aerated Membrane Tank Effluent	Final Treated Water
Hardness as $CaCO_3$ [h]	mg/L as $CaCO_3$	No limit	No established limit	237.6	226.90	243.9	233.7	237.5
Total suspended solids [h]	mg/L	No limit	No established limit	8.1	64.00	60	<0.57	<0.57
Dissolved oxygen [h]	mg/L	No limit	No established limit	8.86	1.00	1.15	8.52	8.55
Carbonate and bicarbonate alkalinity as $CaCO_3$ [h]	mg/L as $CaCO_3$	No limit	No established limit	108	182.00	163	138	106
Vanadium [h]	µg/L	No limit	No established limit	24.7	27.00	30.5	3.51	3.64

Notes: Table cell highlighted in yellow indicates that the total dissolved solids concentration limited the blending ratio and was managed by careful blending of MSU water with well water at the treatment facility.

Plant flow was 8,290 L/min (2,190 gal/min).

The detection limit for isotopes were as stated in the reports provided by the laboratory. The detection limits often varied from sample to sample.

a. Unless noted, maximum allowed was calculated as follows: Cleanup level ÷ % Removal.

b. Covered by the MCL of 4 mrem/yr for beta particle and photon radioactivity from manmade radionuclides in drinking water. Value shown for pCi/L is assumed to yield 4 mrem/yr.

c. Assumes that water is not treated through uranium ion-exchange resin.

d. Assumes that water is not treated using technetium-99 ion-exchange resin. A maximum of 500 pCi/L was adopted to prevent technetium-99 from contaminating the central treatment plant.

e. These are secondary standards and are not mandatory guidelines. High sulfate concentrations cause a salty taste in water. Manganese causes black staining and a bitter metallic taste. Total dissolved solids can cause staining, deposits, or a salty taste.

f. Assumes cyanide in the form of ferrocyanide, the most common form observed to date.

g. Chloroform is regulated as one of four trihalomethanes. The sum of chloroform, bromoform, dichlorobromomethane, and dibromochloromethane is regulated by an MCL of 80 µg/L. Chloroform is typically the dominant trihalomethane and has an MCL goal of 0.07 mg/L.

h. Not a contaminant of concern but is of interest because of potential impact on treatment.

FBR = fluidized bed reactor

MCL = maximum contaminant level

MSU = modular storage unit

P&T = pump and treat

Table 3-5. COCs at 200 West P&T Facility While Treating MSU Water (July 5, 2018)

Contaminant	Unit	MCL or Cleanup Level	Maximum Concentration Allowable in Feed to 200 West P&T [a]	Influent Tank	FBR-A Effluent	FBR-B Effluent	Aerated Membrane Tank Effluent	Final Treated Water
Strontium-90	pCi/L	8 [b]	8 [b]	<1.32	<1.45	<1.76	<150	<1.22
Cobalt-60	pCi/L	100 [b]	100 [b]	<6.77	<9.04	<7.21	<9.07	<9.09
Uranium	µg/L	30	34 [c]	1.05	0.988	1.01	0.840	0.921
Technetium-99	pCi/L	900	500 [d]	181	132	115	123	103
Arsenic	µg/L	10	12	<5	<5	<5	<5	<5
cis-1,2-Dichloroethene	µg/L	70	7,000	<0.3	<0.3	<0.3	<0.3	<0.3
Gross alpha	pCi/L	15	17	6.11	<1.73	1.84	<1.45	2.23
Sulfate	mg/L	250 [e]	250	71	71	74	74	110
Manganese	µg/L	50 [e]	50	<2	34.3	34.7	57.9	47.1
Carbon tetrachloride	µg/L	3.4	17,000	504	274	297	20.4	<0.3
Chromium (total)	µg/L	100	220	32	37.6	24.6	3.03	3.23
Hexavalent chromium	µg/L	48	170	29	8.6	1.2	2.6	2.2
Nitrate as nitrogen	mg/L	10	44	33	0.15	0.56	6.2	6.3
Trichloroethene	µg/L	1	19	3.35	2.24	2.43	0.38	<0.3
Iodine-129	pCi/L	1	1.0	<1	<1	<1	<1	<1
Tritium	pCi/L	20,000	20,000	4,190	4,470	4,290	3,730	4,330
Total cyanide	µg/L	200	200 [f]	<1.67	2.02	<1.67	<1.67	<1.67
Free cyanide	µg/L	4.8	4.8	<3	<3	<3	<3	<3
Chloroform	µg/L	70 [g]	5,600	5	9.1	8.7	2.58	<0.3
pH	unitless	6.5 to 9.5	>6.0, <7.8 [g]	6.92	6.61	6.64	7.22	7.05
Total dissolved solids	mg/L	500 [e]	500	477	407	401	431	437

Table 3-5. COCs at 200 West P&T Facility While Treating MSU Water (July 5, 2018)

Contaminant	Unit	MCL or Cleanup Level	Maximum Concentration Allowable in Feed to 200 West P&T [a]	Influent Tank	FBR-A Effluent	FBR-B Effluent	Aerated Membrane Tank Effluent	Final Treated Water
Hardness as $CaCO_3$ [h]	mg/L as $CaCO_3$	No limit	No established limit	263.5	263.70	255.2	252.2	240.2
Total suspended solids [h]	mg/L	No limit	No established limit	<0.6	59	49	<0.613	<0.648
Dissolved oxygen [h]	mg/L	No limit	No established limit	8.86	1.23	2.48	8.29	8.29
Carbonate and bicarbonate alkalinity as $CaCO_3$ [h]	mg/L as $CaCO_3$	No limit	No established limit	103	195	190	157	120
Vanadium [h]	µg/L	No limit	No established limit	25.4	30.10	27.1	3.87	4.12

Notes: Table cell highlighted in yellow indicates that the total dissolved solids concentration limited the blending ratio and was managed by careful blending of MSU water with well water at the treatment facility.

Plant flow at 5,602 L/min (1,480 gal/min) and MSU flow into 200 West P&T was 114 L/min (30 gal/min).

The detection limit for isotopes were as stated in the reports provided by the laboratory. The detection limits often varied from one sample to the next.

a. Unless noted, maximum allowed was calculated as follows: Cleanup level ÷ % Removal.

b. Covered by the MCL of 4 mrem/yr for beta particles and photon radioactivity from manmade radionuclides in drinking water. Value shown for pCi/L is assumed to yield 4 mrem/yr.

c. Assumes water is not treated through uranium ion-exchange resin.

d. Assumes water is not treated through technetium-99 ion-exchange resin. A maximum of 500 pCi/L was adopted to prevent technetium-99 from contaminating the central treatment plant.

e. These are secondary standards and are not mandatory guidelines. High sulfate concentrations cause a salty taste in water. Manganese causes black staining and a bitter metallic taste. Total dissolved solids can cause staining, deposits, or a salty taste.

f. Assumes cyanide in the form of ferrocyanide, the most common form observed to date.

g. Chloroform is regulated as one of four trihalomethanes. The sum of chloroform, bromoform, dichlorobromomethane, and dibromochloromethane is regulated by an MCL of 80 µg/L. Chloroform is typically the dominant trihalomethane and has an MCL goal of 0.07 mg/L.

h. Not a contaminant of concern but is of interest because of potential impact on treatment.

FBR = fluidized bed reactor

MCL = maximum contaminant level

MSU = modular storage unit

P&T = pump and treat

Table 3-6. COCs at the 200 West P&T Facility While Treating MSU Water (July 10 and 11, 2018)

Contaminant	Unit	MCL or Cleanup Level	Maximum Concentration Allowable in Feed to the 200 West P&T [a]	Influent Tank	FBR-A Effluent	FBR-B Effluent	Aerated Membrane Tank Effluent	Final Treated Water
Strontium-90	pCi/L	8 [b]	8 [b]	<1.87	<1.27	<1.27	<1.04	<1.21
Cobalt-60	pCi/L	100 [b]	100 [b]	<7.66	<9.63	<7.99	<9.66	<11.0
Uranium	µg/L	30	34 [c]	0.94	0.926	0.904	0.844	0.880
Technetium-99	pCi/L	900	500 [d]	159	108	113	111	85.2
Arsenic	µg/L	10	12	<5	<5	<5	<5	<5
cis-1,2-Dichloroethene	µg/L	70	7,000	<0.3	<0.3	<0.3	<0.3	<0.3
Gross alpha	pCi/L	15	17	1.7	2.64	<1.96	<1.32	<1.95
Sulfate	mg/L	250 [e]	250	69	70	71	73	110
Manganese	µg/L	50 [e]	50	<2	35.2	31.4	40.0	29.3
Carbon tetrachloride	µg/L	3.4	17,000	505	259	306	16.2	<0.3
Chromium (total)	µg/L	100	220	27.8	27.9	21.9	2.32	2.19
Hexavalent chromium	µg/L	48	170	27	3.2	9.5	1.9	1.6
Nitrate as nitrogen	mg/L	10	44	30.6	0.051	0.23	5.6	5.8
Trichloroethene	µg/L	1	19	3.47	1.89	2.29	<0.3	<0.3
Iodine-129	pCi/L	1	1.0	<1	<1	<1	<1	<1
Tritium	pCi/L	20,000	20,000	3,080	2,890	3,170	2,810	2,720
Total cyanide	µg/L	200	200 [f]	<1.67	<1.67	<1.67	7.73	7.30
Free cyanide	µg/L	4.8	4.8	<3	<3	<3	6.88	7.8
Chloroform	µg/L	70 [g]	5,600	6	13.8	8.82	8.47	<0.3
pH	unitless	6.5 to 9.5	>6.0, <7.8 [g]	7.17	6.83	6.79	7.56	7.15
Total dissolved solids	mg/L	500 [e]	500	466	386	421	437	421

Table 3-6. COCs at the 200 West P&T Facility While Treating MSU Water (July 10 and 11, 2018)

Contaminant	Unit	MCL or Cleanup Level	Maximum Concentration Allowable in Feed to the 200 West P&T [a]	Influent Tank	FBR-A Effluent	FBR-B Effluent	Aerated Membrane Tank Effluent	Final Treated Water
Hardness as $CaCO_3$ [h]	mg/L as $CaCO_3$	No limit	No established limit	239	237	243	238	228
Total suspended solids [h]	mg/L	No limit	No established limit	<0.570	62	50	<0.570	<0.570
Dissolved oxygen [h]	mg/L	No limit	No established limit	8.86	1.43	1.54	7.67	8.44
Carbonate and bicarbonate alkalinity as $CaCO_3$ [h]	mg/L as $CaCO_3$	No limit	No established limit	102	194	183	157	120
Vanadium [h]	µg/L	No limit	No established limit	22.6	29.60	27.8	5.44	5.29

Notes: Table cell highlighted in yellow indicates that the total dissolved solids concentration limited the blending ratio and was managed by careful blending of MSU water with well water at the treatment facility.

Plant flow at 5,300 L/min (1,400 gal/min) and MSU flow into 200 West P&T was 38 L/min (10 gal/min).

a. Unless noted, maximum allowed was calculated as follows: Cleanup level ÷ % Removal.

b. Covered by MCL of 4 mrem/yr for beta particle and photon radioactivity from manmade radionuclides in drinking water. Value shown for pCi/L is assumed to yield 4 mrem/yr.

c. Assumes that water is not treated through uranium ion-exchange resin.

d. Assumes that water is not treated through technetium-99 ion-exchange resin. A maximum of 500 pCi/L was adopted to prevent technetium-99 from contaminating the central treatment plant.

e. These are secondary standards and are not mandatory guidelines. High sulfate concentrations cause a salty taste in water. Manganese causes black staining and a bitter metallic taste. Total dissolved solids can cause staining, deposits, or a salty taste.

f. Assumes cyanide in the form of ferrocyanide, the most common form observed to date.

g. Chloroform is regulated as one of four trihalomethanes. The sum of chloroform, bromoform, dichlorobromomethane, and dibromochloromethane is regulated by an MCL of 80 µg/L. Chloroform is typically the dominant trihalomethane and has an MCL goal of 0.07 mg/L.

h. Not a contaminant of concern but is of interest because of potential impact on treatment.

FBR = fluidized bed reactor

MCL = maximum contaminant level

MSU = modular storage unit

P&T = pump and treat

Table 3-7. COCs at 200 West P&T Facility After Completing Treatment of MSU Water (September 6, 2018)

Contaminant	Unit	MCL or Cleanup Level	Maximum Concentration Allowable in Feed to the 200 West P&T [a]	Influent Tank	FBR-A Effluent	FBR-B Effluent	Aerated Membrane Tank Effluent	Final Treated Water
Strontium-90	pCi/L	8 [b]	8 [b]	<0.72	<0.63	<0.56	<1.07	<0.93
Cobalt-60	pCi/L	100 [b]	100 [b]	<7.66	<9.63	<7.99	<9.66	<11.0
Uranium	µg/L	30	34 [c]	1.13	0.948	0.95	1.02	1.050
Technetium-99	pCi/L	900	500 [d]	250	89.8	135	103	89.2
Arsenic	µg/L	10	12	<5	<5	<5	<5	<5
cis-1,2-Dichloroethene	µg/L	70	7,000	<0.3	<0.3	<0.3	<0.3	<0.3
Gross alpha	pCi/L	15	17	6.23	4.84	4.86	3.39	2.5
Sulfate	mg/L	250 [e]	250	61	62	63	63	120
Manganese	µg/L	50 [e]	50	2.94	9.95	10.3	28.8	24.9
Carbon tetrachloride	µg/L	3.4	17,000	393	281	341	27.4	<0.3
Chromium (total)	µg/L	100	220	26.6	20	17	3.33	3.47
Hexavalent chromium	µg/L	48	170	27	15	1.5	3.8	3.5
Nitrate as nitrogen	mg/L	10	44	32.5	2.5	1.9	6.1	6.5
Trichloroethene	µg/L	1	19	2.81	1.39	2.18	0.42	<0.3
Iodine-129	pCi/L	1	1.0	<2	<2	<2	<2	<2
Tritium	pCi/L	20,000	20,000	2,590	2,370	2,380	2,570	2,780
Total cyanide	µg/L	200	200 [f]	<2	<2	<2	<2	<2
Free cyanide	µg/L	4.8	4.8	<3	<3	<3	<3	<3
Chloroform	µg/L	70 [g]	5,600	5	9.36	8.73	3.21	<0.3
pH	unitless	6.5 to 9.5	>6.0, <7.8	7.5 [h]	6.8 [i]	6.8 [i]	7.34 [j]	7.2 [k]
Total dissolved solids	mg/L	500 [e]	500	401	360	411	370	401

Table 3-7. COCs at 200 West P&T Facility After Completing Treatment of MSU Water (September 6, 2018)

Contaminant	Unit	MCL or Cleanup Level	Maximum Concentration Allowable in Feed to the 200 West P&T [a]	Influent Tank	FBR-A Effluent	FBR-B Effluent	Aerated Membrane Tank Effluent	Final Treated Water
Hardness as $CaCO_3$ [l]	mg/L as $CaCO_3$	No limit	No established limit	234	231	236	238	225
Total suspended solids [l]	mg/L	No limit	No established limit	7.95	59	58.6	0.78	0.57
Dissolved oxygen[l]	mg/L	No limit	No established limit	9.86	1.37	2.13	8.52	8.73
Carbonate and bicarbonate alkalinity as $CaCO_3$ [l]	mg/L as $CaCO_3$	No limit	No established limit	111	188	218	156	112
Vanadium [l]	µg/L	No limit	No established limit	23.7	25.2	24.2	3.1	3.0

Notes: Table cell highlighted in yellow indicates that the total dissolved solids concentration limited the blending ratio and was managed by careful blending of MSU water with well water at the treatment facility.

a. Unless noted, maximum allowed was calculated as follows: Cleanup level ÷ % Removal.

b. Covered by MCL of 4 mrem/yr for beta particles and photon radioactivity from manmade radionuclides in drinking water. Value shown for pCi/L is assumed to yield 4 mrem/yr.

c. Assumes that water is not treated through uranium ion-exchange resin.

d. Assumes water is not treated through technetium-99 ion-exchange resin. A maximum of 500 pCi/L was adopted to prevent technetium-99 from contaminating the central treatment plant.

e. These are secondary standards and are not mandatory guidelines. High sulfate concentrations cause a salty taste in water. Manganese causes black staining and a bitter metallic taste. Total dissolved solids can cause staining, deposits, or a salty taste.

f. Assumes cyanide in the form of ferrocyanide, the most common form observed to date.

g. Chloroform is regulated as one of four trihalomethanes. The sum of chloroform, bromoform, dichlorobromomethane, and dibromochloromethane is regulated by an MCL of 80 µg/L. Chloroform is typically the dominant trihalomethane and has an MCL goal of 0.07 mg/L.

h. Process laboratory value used in lieu of field sample, as field samples read low (6.75, 7.00).

i. Process laboratory value used in lieu of field sample, as field samples read low (6.41 and 6.39 for FBR-A and FBR-B, respectively).

j. Value from online instrumentation used in lieu of field sample, which read low (6.69). Online instrument used sporadically, so values from September 10, September 19, and September 21, 2018, were averaged. See Appendix H for details.

k. Value from online instrument used in lieu of field measurement, which read low (6.61).

l. Not a contaminant of concern but is of interest because of potential impact on treatment.

FBR = fluidized bed reactor

MCL = maximum contaminant level

MSU = modular storage unit

P&T = pump and treat

4 Conclusions and Recommendations

The optimization test for treating water from the MSUs was implemented in accordance with the test plan (DOE/RL-2018-28) and demonstrated that MSU water can be successfully treated at the 200 West P&T using careful blending ratios. Most of the contaminants were well below the acceptance criteria. Of the three that were greater than the acceptance criteria the blend ratio required to meet the TDS acceptance criteria was the most limiting, followed by manganese and iodine-129 in that order. The blend ratio was based on TDS and resulted in meeting all effluent criteria. This optimization test supports the treatment of MSU water in the 200 West P&T treatment facility. In addition, the treatment of purgewater in the MSUs has proven to be successful in reducing the concentrations of iron and manganese, contributors of well fouling.

A considerable mass of materials (including strontium-90, uranium, and manganese) are held within the sediments. The water chemistry in the MSUs should be carefully managed to avoid releasing contaminants. In particular, algae should be allowed to grow to maintain a pH >8, as well as high dissolved oxygen levels. Before transferring water from the MSUs, addition of sodium hypochlorite has shown to be an effective means to maintain an oxidative environment and to control algae and bacteria. The use of sodium hypochlorite is believed to have collateral benefits, including the precipitation of iron, manganese, and calcium that clarify the water.

Sediment removal, although not a part of the active process for MSU water treatment, played an important role in managing the water storage capacity of the MSUs. The sediment removal process proved to be successful and efficient when necessary. However, water transfer during sediment removal should be avoided. Leveling of sediment to keep it wetted as the water level decreases is an acceptable activity to prevent the sediments from drying out and becoming airborne. Sediment removal is expected to occur approximately every 10 years and does not pose an ongoing concern.

Treatment of MSU water is expected to be intermittent as needed (approximately 2 to 3 weeks in the spring and in the fall) to ensure MSU water storage capacity limits are not exceeded. MSU water transfers will continue via pipeline to be more efficient and cost effective. Based on the lessons learned from this optimization test, CH2M HILL Plateau Remediation Company recommends the following steps to sequester contaminants and support ongoing efforts to meet the 200 West P&T acceptance and effluent quality criteria:

1. Isolate the water to be transferred so additional contaminants are not introduced.
2. Sample the MSUs and review the results against the acceptance criteria.
3. Chlorinate the MSUs to clear algae and bacteria and to oxidize iron and manganese.
4. Calculate the blend ratio of the MSU water and use this value to manage the flow rate from the Z-line trench to the recycle tank. A blend ratio of 0.0225 is recommended for planning purposes based on the TDS concentrations being the primary limiting factor.

During water transfer from the MSUs, the water should be filtered. A pore size of 100 µm or smaller is recommended to prevent debris from entering the pipeline.

The effluent tank at the 200 West P&T should be sampled within 5 days of the start of water transfer to the 200 West P&T. Samples of the MSU water and from the 200 West P&T effluent tank should be analyzed for the following constituents:

- Aluminum
- Antimony
- Arsenic
- Barium
- Cadmium
- Calcium
- Chromium
- Cobalt
- Copper
- Iron
- Lead
- Magnesium
- Manganese
- Mercury
- Molybdenum
- Nickel
- Phosphorus
- Potassium
- Selenium
- Silica
- Sodium
- Strontium
- Vanadium
- Zinc
- Strontium-90
- Cobalt-60
- Technetium-99
- Iodine-129
- Tritium
- Gross alpha
- Sulfate
- Nitrate
- Chloride
- Phosphate
- Hexavalent chromium
- Carbon tetrachloride
- Trichloroethene
- Chloroform
- Total cyanide
- Free cyanide
- Residual chlorine
- pH
- TDS
- TSS
- Carbonate and bicarbonate alkalinity as $CaCO_3$

This list includes the COCs for all areas that contribute water to the MSUs. In addition, the list includes constituents such as alkalinity that impact the treatment process at the 200 West P&T.

Finally, key documentation should be updated to recognize the treatment of MSU water at the 200 West P&T as an optimization of the selected remedy. Documents that should be updated include the following:

- SGW-59872, *Feed Stream Acceptance Criteria for 200 W Pump and Treat*: Should be updated to include contaminants that may be present in MSU water.
- SGW-57790, C*haracterization data for New Waste Streams (200-UP-1, ERDF Leachate, 200-BP-5 and Perched Water) for the 200 West Pump-and-Treat Facility*.
- DOE/RL-2009-124, *200 West Pump and Treat Operations and Maintenance Plan*: Should be updated to include treatment of MSU water as part of 200 West P&T routine operations.
- DOE/RL-2009-80, *Investigation Derived Waste Purgewater Management Work Plan*: Should be updated to add the 200 West P&T to the list of facilities to which purgewater can be shipped.

5 References

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Appendix A

Constituents of Modular Storage Unit #3 During Pilot Test, June 5, 2018

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Table A-1. Constituents of Modular Storage Unit #3 During Pilot Test, June 5, 2018

Constituent	Value	Units	Laboratory Qualifier
1,1,1-Trichloroethane	0.3	µg/L	U
1,1,2,2-Tetrachloroethane	0.3	µg/L	U
1,1,2-Trichloroethane	0.3	µg/L	U
1,1-Dichloroethane	0.3	µg/L	U
1,1-Dichloroethene	0.3	µg/L	U
1,2,4-Trichlorobenzene	2.94	µg/L	U
1,2-Dichlorobenzene	2.94	µg/L	U
1,2-Dichloroethane	0.3	µg/L	U
1,2-Dichloroethene (total)	0.3	µg/L	U
1,2-Dichloropropane	0.3	µg/L	U
1,3-Dichlorobenzene	2.94	µg/L	U
1,4-Dichlorobenzene	2.94	µg/L	U
2-(2-methyl-4-chlorophenoxy) propionic acid	16.7	µg/L	U
2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.0833	µg/L	U
2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0.0833	µg/L	U
2,4,5-Trichlorophenol	2.94	µg/L	U
2,4-D(2,4-Dichlorophenoxyacetic acid)	0.0833	µg/L	U
2,4-DB(4-(2,4-Dichlorophenoxy)butanoic acid)	0.0923	µg/L	U
2,4-Dimethylphenol	2.94	µg/L	U
2,4-Dinitrophenol	4.9	µg/L	U
2,4-Dinitrotoluene	2.94	µg/L	U
2,6-Dinitrotoluene	2.94	µg/L	U
2-Butanone	3	µg/L	TU
2-Chloronaphthalene	0.402	µg/L	U
2-Chlorophenol	2.94	µg/L	U
2-Hexanone	3	µg/L	TU
2-Methyl-4 chlorophenoxyacetic acid	16.7	µg/L	U
2-Methylnaphthalene	0.294	µg/L	U
2-Nitroaniline	2.94	µg/L	U
3,3'-Dichlorobenzidine	2.94	µg/L	U

Table A-1. Constituents of Modular Storage Unit #3 During Pilot Test, June 5, 2018

Constituent	Value	Units	Laboratory Qualifier
3-Nitroaniline	2.94	µg/L	U
4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00935	µg/L	U
4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00935	µg/L	U
4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00935	µg/L	TU
4,6-Dinitro-2-methylphenol	2.94	µg/L	U
4-Bromophenylphenyl ether	2.94	µg/L	U
4-Chloro-3-methylphenol	2.94	µg/L	U
4-Chloroaniline	3.24	µg/L	U
4-Chlorophenylphenyl ether	2.94	µg/L	U
4-Methyl-2-pentanone	3	µg/L	U
4-Nitroaniline	2.94	µg/L	U
4-Nitrophenol	2.94	µg/L	U
Acenaphthene	0.294	µg/L	U
Acenaphthylene	0.294	µg/L	U
Acetone	3	µg/L	TU
Aldrin	0.00621	µg/L	U
Alkalinity	141,000	µg/L	--
Alpha-BHC	0.00621	µg/L	U
Alpha-Chlordane	0.00621	µg/L	U
Aluminum	68	µg/L	U
Americium-241	0.0538	µg/L	U
Anthracene	0.294	µg/L	U
Antimony	3.53	µg/L	B
Aroclor 1016	0.162	µg/L	DU
Aroclor 1221	0.162	µg/L	DU
Aroclor 1232	0.162	µg/L	DU
Aroclor 1242	0.162	µg/L	DU
Aroclor 1248	0.162	µg/L	DU
Aroclor 1254	0.162	µg/L	DU
Aroclor 1260	0.162	µg/L	DU

Table A-1. Constituents of Modular Storage Unit #3 During Pilot Test, June 5, 2018

Constituent	Value	Units	Laboratory Qualifier
Arsenic	5	µg/L	U
Barium	10.6	µg/L	--
Benzene	0.3	µg/L	U
Benzo(a)anthracene	0.294	µg/L	U
Benzo(a)pyrene	0.294	µg/L	U
Benzo(b)fluoranthene	0.294	µg/L	U
Benzo(ghi)perylene	0.294	µg/L	U
Benzo(k)fluoranthene	0.294	µg/L	U
Beryllium	1	µg/L	U
beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00621	µg/L	U
Bicarbonate	87,400	µg/L	--
Bis(2-chloro-1-methylethyl)ether	2.94	µg/L	U
Bis(2-Chloroethoxy)methane	2.94	µg/L	U
Bis(2-chloroethyl) ether	2.94	µg/L	U
Boron	155	µg/L	--
Bromodichloromethane	0.3	µg/L	U
Bromoform	0.3	µg/L	U
Bromomethane	0.3	µg/L	U
Butylbenzylphthalate	0.294	µg/L	U
Cadmium	1	µg/L	U
Calcium	22,400	µg/L	--
Carbazole	0.294	µg/L	U
Carbon disulfide	1.6	µg/L	U
Carbon tetrachloride	0.3	µg/L	U
Carbonate alkalinity	53,200	µg/L	--
Cesium-137	2.63	pCi/L	U
Chloride	230	mg/L	D
Chlorobenzene	0.3	µg/L	U
Chloroethane	0.3	µg/L	U
Chloroform	0.9	µg/L	J

Table A-1. Constituents of Modular Storage Unit #3 During Pilot Test, June 5, 2018

Constituent	Value	Units	Laboratory Qualifier
Chloromethane	0.3	µg/L	U
Chromium	1.05	µg/L	B
Chrysene	0.294	µg/L	U
cis-1,3-Dichloropropene	0.3	µg/L	U
Cobalt	13.5	µg/L	--
Cobalt-60	-1.83	pCi/L	U
Copper	4.33	µg/L	B
Cyanide	1.67	µg/L	U
Cyanide amenable to chlorination	1.67	µg/L	U
Dalapon	1.67	µg/L	U
Delta-BHC	0.00621	µg/L	U
Dibenz[a,h]anthracene	0.294	µg/L	U
Dibenzofuran	2.94	µg/L	U
Dibromochloromethane	0.3	µg/L	U
Dicamba	0.0833	µg/L	U
Dichloroprop	0.0833	µg/L	U
Dieldrin	0.00935	µg/L	U
Diethylphthalate	0.294	µg/L	U
Dimethyl phthalate	0.294	µg/L	U
Di-n-butylphthalate	0.294	µg/L	U
Di-n-octylphthalate	0.294	µg/L	U
Dinoseb(2-secButyl-4,6-dinitrophenol)	0.0833	µg/L	U
Endosulfan I	0.00621	µg/L	U
Endosulfan II	0.00935	µg/L	U
Endosulfan sulfate	0.00935	µg/L	U
Endrin	0.00935	µg/L	U
Endrin aldehyde	0.00621	µg/L	U
Endrin ketone	0.00935	µg/L	TU
Ethylbenzene	0.3	µg/L	U

Table A-1. Constituents of Modular Storage Unit #3 During Pilot Test, June 5, 2018

Constituent	Value	Units	Laboratory Qualifier
Europium-152	-3.82	pCi/L	U
Europium-154	6.8	pCi/L	U
Europium-155	-1.58	pCi/L	U
Fluoranthene	0.294	µg/L	U
Fluorene	0.294	µg/L	U
Free cyanide	1	µg/L	U
Gamma-BHC (Lindane)	0.00621	µg/L	U
Gross alpha	0.46	pCi/L	U
Gross beta	27.9	pCi/L	--
Heptachlor	0.00621	µg/L	U
Heptachlor epoxide	0.0366	µg/L	J
Hexachlorobenzene	2.94	µg/L	U
Hexachlorobutadiene	2.94	µg/L	U
Hexachlorocyclopentadiene	2.94	µg/L	U
Hexachloroethane	2.94	µg/L	U
Hexavalent chromium	0.0015	µg/L	U
Hydroxylion	1,450	µg/L	U
Indeno(1,2,3-cd)pyrene	0.294	µg/L	U
Iodine-129	4.05	pCi/L	--
Iron	74.8	µg/L	B
Isophorone	3.43	µg/L	U
Lead	3.3	µg/L	U
Magnesium	27,000	µg/L	--
Manganese	91.3	µg/L	--
Mercury	0.067	µg/L	UN
Methoxychlor	0.0467	µg/L	TU
Methylene chloride	1.6	µg/L	U
Molybdenum	24.1	µg/L	--
Nickel	10.1	µg/L	C
Nickel-63	6.24	pCi/L	U
Nitrobenzene	2.94	µg/L	U

Table A-1. Constituents of Modular Storage Unit #3 During Pilot Test, June 5, 2018

Constituent	Value	Units	Laboratory Qualifier
Nitrogen in nitrate	0.028	mg/L	UD
n-Nitrosodi-n-propylamine	2.94	µg/L	U
Phenanthrene	0.294	µg/L	U
Phosphorus	6,080	µg/L	--
Plutonium-238	0.334	pCi/L	U
Plutonium-239/240	0.243	pCi/L	U
Potassium	21,000	µg/L	--
Pyrene	0.294	µg/L	U
Selenium	8.81	µg/L	B
Silver	1	µg/L	U
Sodium	171,000	µg/L	--
Strontium	112	µg/L	--
Styrene	0.3	µg/L	U
Sulfate	100	mg/L	D
Technetium-99	12.4	pCi/L	U
Tetrachloroethene	0.3	µg/L	U
Toluene	0.41	µg/L	J
Total beta radiostrontium	0.928	pCi/L	--
Total dissolved solids	801,000	µg/L	--
Total petroleum hydrocarbons – diesel range	185	µg/L	JT
Total petroleum hydrocarbons – gasoline range	16.7	µg/L	U
Total petroleum hydrocarbons – kerosene range	33.3	µg/L	U
Total petroleum hydrocarbons – motor oil (high boiling)	354	µg/L	T
Total suspended solids	50	mg/L	--
Toxaphene	0.14	µg/L	U
trans-1,3-Dichloropropene	0.3	µg/L	U
trans-Chlordane	0.00621	µg/L	U
Trichloroethene	0.3	µg/L	U
Tritium	3,370	pCi/L	--
Uranium	0.665	µg/L	--

Table A-1. Constituents of Modular Storage Unit #3 During Pilot Test, June 5, 2018

Constituent	Value	Units	Laboratory Qualifier
Uranium-233/234	0.811	pCi/L	--
Uranium-235	0.233	pCi/L	U
Uranium-238	0.546	pCi/L	U
Vanadium	1.19	μg/L	B
Vinyl chloride	0.3	μg/L	U
Xylenes (total)	0.32	μg/L	J
Zinc	8.62	μg/L	CB

Laboratory qualifiers:

-- = The value presented represents the concentration, or activity, within the accuracy of the analytical method which is typically +/- 20%.

B = analyte was detected in both the associated quality control blank and in the sample

C = analyte has been confirmed by gas chromatography/mass spectrometry analysis

D = reported value is from dilution which introduces the potential for decreasing precision

N = Spike Recovery is outside the control limits and accuracy is compromised for this sample

J = result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value

T = spike and/or spike duplicate sample recovery is outside control limits

U = below detection limit; value shown is detection limit

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Appendix B

Constituents of Modular Storage Unit #3 During Optimization Test, July 2, 2018

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Table B-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 2, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU unfiltered pumping	1,1,1-Trichloroethane	0.3	µg/L	U
MSU filtered pumping	1,1,1-Trichloroethane	0.3	µg/L	U
MSU unfiltered pumping	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
MSU filtered pumping	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
MSU unfiltered pumping	1,1,2-Trichloroethane	0.3	µg/L	U
MSU filtered pumping	1,1,2-Trichloroethane	0.3	µg/L	U
MSU unfiltered pumping	1,1-Dichloroethane	0.3	µg/L	U
MSU filtered pumping	1,1-Dichloroethane	0.3	µg/L	U
MSU unfiltered pumping	1,1-Dichloroethene	0.3	µg/L	U
MSU filtered pumping	1,1-Dichloroethene	0.3	µg/L	U
MSU unfiltered pumping	1,2,4-Trichlorobenzene	2.83	µg/L	U
MSU filtered pumping	1,2,4-Trichlorobenzene	2.88	µg/L	U
MSU unfiltered pumping	1,2-Dichlorobenzene	2.83	µg/L	U
MSU filtered pumping	1,2-Dichlorobenzene	2.88	µg/L	U
MSU unfiltered pumping	1,2-Dichloroethane	0.3	µg/L	U
MSU filtered pumping	1,2-Dichloroethane	0.3	µg/L	U
MSU unfiltered pumping	1,2-Dichloroethene (total)	0.3	µg/L	U
MSU filtered pumping	1,2-Dichloroethene (total)	0.3	µg/L	U
MSU unfiltered pumping	1,2-Dichloropropane	0.3	µg/L	U
MSU filtered pumping	1,2-Dichloropropane	0.3	µg/L	U
MSU unfiltered pumping	1,3-Dichlorobenzene	2.83	µg/L	U
MSU filtered pumping	1,3-Dichlorobenzene	2.88	µg/L	U
MSU unfiltered pumping	1,4-Dichlorobenzene	2.83	µg/L	U
MSU filtered pumping	1,4-Dichlorobenzene	2.88	µg/L	U
MSU unfiltered pumping	2-(2-methyl-4-chlorophenoxy) propionic acid	1,590	µg/L	DTUX
MSU filtered pumping	2-(2-methyl-4-chlorophenoxy) propionic acid	825	µg/L	DTUX
MSU unfiltered pumping	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	7.94	µg/L	DTUX
MSU filtered pumping	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	4.13	µg/L	DTUX
MSU unfiltered pumping	2,4,5-TP(2-(2,4,5-Trichlorophenoxy) propionic acid)Silvex	7.94	µg/L	DTUX
MSU filtered pumping	2,4,5-TP(2-(2,4,5-Trichlorophenoxy) propionic acid)Silvex	4.13	µg/L	DTUX
MSU unfiltered pumping	2,4,5-Trichlorophenol	2.83	µg/L	U

Table B-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 2, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	2,4,5-Trichlorophenol	2.88	µg/L	U
MSU unfiltered pumping	2,4-D(2,4-Dichlorophenoxyacetic acid)	7.94	µg/L	DTUX
MSU filtered pumping	2,4-D(2,4-Dichlorophenoxyacetic acid)	4.13	µg/L	DTUX
MSU unfiltered pumping	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	8.79	µg/L	DTUX
MSU filtered pumping	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	4.57	µg/L	DTUX
MSU unfiltered pumping	2,4-Dimethylphenol	2.83	µg/L	U
MSU filtered pumping	2,4-Dimethylphenol	2.88	µg/L	U
MSU unfiltered pumping	2,4-Dinitrophenol	4.72	µg/L	U
MSU filtered pumping	2,4-Dinitrophenol	4.81	µg/L	U
MSU unfiltered pumping	2,4-Dinitrotoluene	2.83	µg/L	U
MSU filtered pumping	2,4-Dinitrotoluene	2.88	µg/L	U
MSU unfiltered pumping	2,6-Dinitrotoluene	2.83	µg/L	U
MSU filtered pumping	2,6-Dinitrotoluene	2.88	µg/L	U
MSU unfiltered pumping	2-Butanone	18.1	µg/L	T
MSU filtered pumping	2-Butanone	16.8	µg/L	T
MSU unfiltered pumping	2-Chloronaphthalene	0.387	µg/L	U
MSU filtered pumping	2-Chloronaphthalene	0.394	µg/L	U
MSU unfiltered pumping	2-Chlorophenol	2.83	µg/L	U
MSU filtered pumping	2-Chlorophenol	2.88	µg/L	U
MSU unfiltered pumping	2-Hexanone	3	µg/L	TU
MSU filtered pumping	2-Hexanone	3	µg/L	TU
MSU unfiltered pumping	2-Methyl-4 chlorophenoxyacetic acid	1,590	µg/L	DTUX
MSU filtered pumping	2-Methyl-4 chlorophenoxyacetic acid	825	µg/L	DTUX
MSU unfiltered pumping	2-Methylnaphthalene	0.283	µg/L	U
MSU filtered pumping	2-Methylnaphthalene	0.288	µg/L	U
MSU unfiltered pumping	2-Nitroaniline	2.83	µg/L	U
MSU filtered pumping	2-Nitroaniline	2.88	µg/L	U
MSU unfiltered pumping	3,3'-Dichlorobenzidine	2.83	µg/L	TU
MSU filtered pumping	3,3'-Dichlorobenzidine	2.88	µg/L	TU
MSU unfiltered pumping	3-Nitroaniline	2.83	µg/L	U
MSU filtered pumping	3-Nitroaniline	2.88	µg/L	U

Table B-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 2, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU unfiltered pumping	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00962	µg/L	U
MSU filtered pumping	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00909	µg/L	U
MSU unfiltered pumping	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00962	µg/L	U
MSU filtered pumping	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00909	µg/L	U
MSU unfiltered pumping	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00962	µg/L	U
MSU filtered pumping	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00909	µg/L	U
MSU unfiltered pumping	4,6-Dinitro-2-methylphenol	2.83	µg/L	U
MSU filtered pumping	4,6-Dinitro-2-methylphenol	2.88	µg/L	U
MSU unfiltered pumping	4-Bromophenylphenyl ether	2.83	µg/L	U
MSU filtered pumping	4-Bromophenylphenyl ether	2.88	µg/L	U
MSU unfiltered pumping	4-Chloro-3-methylphenol	2.83	µg/L	U
MSU filtered pumping	4-Chloro-3-methylphenol	2.88	µg/L	U
MSU unfiltered pumping	4-Chloroaniline	3.11	µg/L	TU
MSU filtered pumping	4-Chloroaniline	3.17	µg/L	TU
MSU unfiltered pumping	4-Chlorophenylphenyl ether	2.83	µg/L	U
MSU filtered pumping	4-Chlorophenylphenyl ether	2.88	µg/L	U
MSU unfiltered pumping	4-Methyl-2-pentanone	3	µg/L	U
MSU filtered pumping	4-Methyl-2-pentanone	3	µg/L	U
MSU unfiltered pumping	4-Nitroaniline	2.83	µg/L	U
MSU filtered pumping	4-Nitroaniline	2.88	µg/L	U
MSU unfiltered pumping	4-Nitrophenol	2.83	µg/L	U
MSU filtered pumping	4-Nitrophenol	2.88	µg/L	U
MSU unfiltered pumping	Acenaphthene	0.283	µg/L	U
MSU filtered pumping	Acenaphthene	0.288	µg/L	U
MSU unfiltered pumping	Acenaphthylene	0.283	µg/L	U
MSU filtered pumping	Acenaphthylene	0.288	µg/L	U
MSU unfiltered pumping	Acetone	49.7	µg/L	T
MSU filtered pumping	Acetone	51.3	µg/L	T
MSU unfiltered pumping	Aldrin	0.00639	µg/L	TU
MSU filtered pumping	Aldrin	0.00605	µg/L	TU
MSU unfiltered pumping	Alkalinity	259,000.00	µg/L	--
MSU filtered pumping	Alkalinity	259,000.00	µg/L	--

Table B-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 2, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU unfiltered pumping	Alpha-BHC	0.0453	µg/L	J
MSU filtered pumping	Alpha-BHC	0.0603	µg/L	--
MSU unfiltered pumping	Alpha-Chlordane	0.00639	µg/L	U
MSU filtered pumping	Alpha-Chlordane	0.00605	µg/L	U
MSU unfiltered pumping	Aluminum	68	µg/L	U
MSU filtered pumping	Aluminum	68	µg/L	U
MSU unfiltered pumping	Americium-241	0.232	pCi/L	U
MSU filtered pumping	Americium-241	0.0658	pCi/L	U
MSU unfiltered pumping	Anthracene	0.283	µg/L	U
MSU filtered pumping	Anthracene	0.288	µg/L	U
MSU unfiltered pumping	Antimony	7.96	µg/L	B
MSU filtered pumping	Antimony	5.84	µg/L	B
MSU unfiltered pumping	Aroclor 1016	0.0326	µg/L	U
MSU filtered pumping	Aroclor 1016	0.0317	µg/L	U
MSU unfiltered pumping	Aroclor 1221	0.0326	µg/L	U
MSU filtered pumping	Aroclor 1221	0.0317	µg/L	U
MSU unfiltered pumping	Aroclor 1232	0.0326	µg/L	U
MSU filtered pumping	Aroclor 1232	0.0317	µg/L	U
MSU unfiltered pumping	Aroclor 1242	0.0326	µg/L	U
MSU filtered pumping	Aroclor 1242	0.0317	µg/L	U
MSU unfiltered pumping	Aroclor 1248	0.0326	µg/L	U
MSU filtered pumping	Aroclor 1248	0.0317	µg/L	U
MSU unfiltered pumping	Aroclor 1254	0.0326	µg/L	U
MSU filtered pumping	Aroclor 1254	0.0317	µg/L	U
MSU unfiltered pumping	Aroclor 1260	0.0326	µg/L	U
MSU filtered pumping	Aroclor 1260	0.0317	µg/L	U
MSU unfiltered pumping	Arsenic	5	µg/L	U
MSU filtered pumping	Arsenic	5	µg/L	U
MSU unfiltered pumping	Barium	13.7	µg/L	--
MSU filtered pumping	Barium	15.6	µg/L	--
MSU unfiltered pumping	Benzene	0.3	µg/L	U
MSU filtered pumping	Benzene	0.3	µg/L	U

Table B-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 2, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU unfiltered pumping	Benzo(a)anthracene	0.283	µg/L	U
MSU filtered pumping	Benzo(a)anthracene	0.288	µg/L	U
MSU unfiltered pumping	Benzo(a)pyrene	0.283	µg/L	U
MSU filtered pumping	Benzo(a)pyrene	0.288	µg/L	U
MSU unfiltered pumping	Benzo(b)fluoranthene	0.283	µg/L	U
MSU filtered pumping	Benzo(b)fluoranthene	0.288	µg/L	U
MSU unfiltered pumping	Benzo(ghi)perylene	0.283	µg/L	U
MSU filtered pumping	Benzo(ghi)perylene	0.288	µg/L	U
MSU unfiltered pumping	Benzo(k)fluoranthene	0.283	µg/L	U
MSU filtered pumping	Benzo(k)fluoranthene	0.288	µg/L	U
MSU unfiltered pumping	Beryllium	1	µg/L	U
MSU filtered pumping	Beryllium	1	µg/L	U
MSU unfiltered pumping	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00639	µg/L	U
MSU filtered pumping	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00605	µg/L	U
MSU unfiltered pumping	Bicarbonate	259,000	µg/L	--
MSU filtered pumping	Bicarbonate	259,000	µg/L	--
MSU unfiltered pumping	Bis(2-chloro-1-methylethyl)ether	2.83	µg/L	U
MSU filtered pumping	Bis(2-chloro-1-methylethyl)ether	2.88	µg/L	U
MSU unfiltered pumping	Bis(2-Chloroethoxy)methane	2.83	µg/L	U
MSU filtered pumping	Bis(2-Chloroethoxy)methane	2.88	µg/L	U
MSU unfiltered pumping	Bis(2-chloroethyl) ether	2.83	µg/L	U
MSU filtered pumping	Bis(2-chloroethyl) ether	2.88	µg/L	U
MSU unfiltered pumping	Boron	201	µg/L	--
MSU filtered pumping	Boron	204	µg/L	--
MSU unfiltered pumping	Bromodichloromethane	111	µg/L	DT
MSU filtered pumping	Bromodichloromethane	118	µg/L	DT
MSU unfiltered pumping	Bromoform	151	µg/L	D
MSU filtered pumping	Bromoform	158	µg/L	D
MSU unfiltered pumping	Bromomethane	0.3	µg/L	U
MSU filtered pumping	Bromomethane	0.3	µg/L	U
MSU unfiltered pumping	Butylbenzylphthalate	0.283	µg/L	U

Table B-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 2, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	Butylbenzylphthalate	0.288	µg/L	U
MSU unfiltered pumping	Cadmium	1	µg/L	U
MSU filtered pumping	Cadmium	1	µg/L	U
MSU unfiltered pumping	Calcium	41,000.00	µg/L	--
MSU filtered pumping	Calcium	42,600.00	µg/L	--
MSU unfiltered pumping	Carbazole	0.283	µg/L	U
MSU filtered pumping	Carbazole	0.288	µg/L	U
MSU unfiltered pumping	Carbon disulfide	1.6	µg/L	U
MSU filtered pumping	Carbon disulfide	1.6	µg/L	U
MSU unfiltered pumping	Carbon tetrachloride	0.39	µg/L	J
MSU filtered pumping	Carbon tetrachloride	0.41	µg/L	J
MSU unfiltered pumping	Carbonate alkalinity	1,450	µg/L	U
MSU filtered pumping	Carbonate alkalinity	1,450	µg/L	U
MSU unfiltered pumping	Cesium-137	-4.59	pCi/L	U
MSU filtered pumping	Cesium-137	-1.15	pCi/L	U
MSU unfiltered pumping	Chloride	1,100	mg/L	D
MSU filtered pumping	Chloride	1,200	mg/L	D
MSU unfiltered pumping	Chlorobenzene	0.3	µg/L	U
MSU filtered pumping	Chlorobenzene	0.3	µg/L	U
MSU unfiltered pumping	Chloroethane	0.3	µg/L	U
MSU filtered pumping	Chloroethane	0.3	µg/L	U
MSU unfiltered pumping	Chloroform	95.6	µg/L	--
MSU filtered pumping	Chloroform	95.1	µg/L	--
MSU unfiltered pumping	Chloromethane	0.53	µg/L	J
MSU filtered pumping	Chloromethane	0.61	µg/L	J
MSU unfiltered pumping	Chromium	1.35	µg/L	B
MSU filtered pumping	Chromium	1.18	µg/L	B
MSU unfiltered pumping	Chrysene	0.283	µg/L	U
MSU filtered pumping	Chrysene	0.288	µg/L	U
MSU unfiltered pumping	cis-1,3-Dichloropropene	0.3	µg/L	U
MSU filtered pumping	cis-1,3-Dichloropropene	0.3	µg/L	U
MSU unfiltered pumping	Cobalt	11.3	µg/L	--

Table B-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 2, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	Cobalt	19.7	µg/L	--
MSU unfiltered pumping	Cobalt-60	1.68	pCi/L	U
MSU filtered pumping	Cobalt-60	1.92	pCi/L	U
MSU unfiltered pumping	Copper	14	µg/L	--
MSU filtered pumping	Copper	32	µg/L	--
MSU unfiltered pumping	Cyanide	1.67	µg/L	U
MSU filtered pumping	Cyanide	2.22	µg/L	B
MSU unfiltered pumping	Cyanide amenable to chlorination	1.67	µg/L	U
MSU filtered pumping	Cyanide amenable to chlorination	1.67	µg/L	U
MSU unfiltered pumping	Dalapon	159	µg/L	DTUX
MSU filtered pumping	Dalapon	82.5	µg/L	DTUX
MSU unfiltered pumping	Delta-BHC	0.00639	µg/L	U
MSU filtered pumping	Delta-BHC	0.00605	µg/L	U
MSU unfiltered pumping	Dibenz[a,h]anthracene	0.283	µg/L	U
MSU filtered pumping	Dibenz[a,h]anthracene	0.288	µg/L	U
MSU unfiltered pumping	Dibenzofuran	2.83	µg/L	U
MSU filtered pumping	Dibenzofuran	2.88	µg/L	U
MSU unfiltered pumping	Dibromochloromethane	184	µg/L	D
MSU filtered pumping	Dibromochloromethane	178	µg/L	D
MSU unfiltered pumping	Dicamba	7.94	µg/L	DTUX
MSU filtered pumping	Dicamba	4.13	µg/L	DTUX
MSU unfiltered pumping	Dichloroprop	7.94	µg/L	DTUX
MSU filtered pumping	Dichloroprop	4.13	µg/L	DTUX
MSU unfiltered pumping	Dieldrin	0.00962	µg/L	U
MSU filtered pumping	Dieldrin	0.00909	µg/L	U
MSU unfiltered pumping	Diethylphthalate	0.283	µg/L	U
MSU filtered pumping	Diethylphthalate	0.288	µg/L	U
MSU unfiltered pumping	Dimethyl phthalate	0.283	µg/L	U
MSU filtered pumping	Dimethyl phthalate	0.288	µg/L	U
MSU unfiltered pumping	Di-n-butylphthalate	0.283	µg/L	U
MSU filtered pumping	Di-n-butylphthalate	0.288	µg/L	U
MSU unfiltered pumping	Di-n-octylphthalate	0.283	µg/L	U

Table B-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 2, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	Di-n-octylphthalate	0.288	µg/L	U
MSU unfiltered pumping	Dinoseb(2-secButyl-4,6-dinitrophenol)	7.94	µg/L	DTUX
MSU filtered pumping	Dinoseb(2-secButyl-4,6-dinitrophenol)	4.13	µg/L	DTUX
MSU unfiltered pumping	Dissolved oxygen	7.49	mg/L	--
MSU filtered pumping	Dissolved oxygen	7.31	mg/L	--
MSU unfiltered pumping	Endosulfan I	0.00639	µg/L	U
MSU filtered pumping	Endosulfan I	0.00605	µg/L	U
MSU unfiltered pumping	Endosulfan II	0.00962	µg/L	U
MSU filtered pumping	Endosulfan II	0.00909	µg/L	U
MSU unfiltered pumping	Endosulfan sulfate	0.00962	µg/L	U
MSU filtered pumping	Endosulfan sulfate	0.00909	µg/L	U
MSU unfiltered pumping	Endrin	0.00962	µg/L	U
MSU filtered pumping	Endrin	0.00909	µg/L	U
MSU unfiltered pumping	Endrin aldehyde	0.00639	µg/L	U
MSU filtered pumping	Endrin aldehyde	0.00605	µg/L	U
MSU unfiltered pumping	Endrin ketone	0.00962	µg/L	U
MSU filtered pumping	Endrin ketone	0.00909	µg/L	U
MSU unfiltered pumping	Ethylbenzene	0.3	µg/L	U
MSU filtered pumping	Ethylbenzene	0.3	µg/L	U
MSU unfiltered pumping	Europium-152	-0.193	pCi/L	U
MSU filtered pumping	Europium-152	-3.2	pCi/L	U
MSU unfiltered pumping	Europium-154	3.09	pCi/L	U
MSU filtered pumping	Europium-154	8.38	pCi/L	U
MSU unfiltered pumping	Europium-155	10.6	pCi/L	U
MSU filtered pumping	Europium-155	9.38	pCi/L	U
MSU unfiltered pumping	Fluoranthene	0.283	µg/L	U
MSU filtered pumping	Fluoranthene	0.288	µg/L	U
MSU unfiltered pumping	Fluorene	0.283	µg/L	U
MSU filtered pumping	Fluorene	0.288	µg/L	U
MSU unfiltered pumping	Free cyanide	3	µg/L	U
MSU filtered pumping	Free cyanide	20.8	µg/L	--
MSU unfiltered pumping	Gamma-BHC (Lindane)	0.00639	µg/L	U

Table B-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 2, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	Gamma-BHC (Lindane)	0.00605	µg/L	U
MSU unfiltered pumping	Gross alpha	-1.01	pCi/L	U
MSU filtered pumping	Gross alpha	0.761	pCi/L	U
MSU unfiltered pumping	Gross beta	64.8	pCi/L	--
MSU filtered pumping	Gross beta	47.7	pCi/L	--
MSU unfiltered pumping	Heptachlor	0.00639	µg/L	U
MSU filtered pumping	Heptachlor	0.00605	µg/L	U
MSU unfiltered pumping	Heptachlor epoxide	0.00639	µg/L	U
MSU filtered pumping	Heptachlor epoxide	0.00605	µg/L	U
MSU unfiltered pumping	Hexachlorobenzene	2.83	µg/L	U
MSU filtered pumping	Hexachlorobenzene	2.88	µg/L	U
MSU unfiltered pumping	Hexachlorobutadiene	2.83	µg/L	U
MSU filtered pumping	Hexachlorobutadiene	2.88	µg/L	U
MSU unfiltered pumping	Hexachlorocyclopentadiene	2.83	µg/L	U
MSU filtered pumping	Hexachlorocyclopentadiene	2.88	µg/L	U
MSU unfiltered pumping	Hexachloroethane	2.83	µg/L	U
MSU filtered pumping	Hexachloroethane	2.88	µg/L	U
MSU unfiltered pumping	Hexavalent chromium	0.0015	mg/L	U
MSU filtered pumping	Hexavalent chromium	0.0015	mg/L	U
MSU unfiltered pumping	Hydroxylion	1450	µg/L	U
MSU filtered pumping	Hydroxylion	1450	µg/L	U
MSU unfiltered pumping	Indeno(1,2,3-cd)pyrene	0.283	µg/L	U
MSU filtered pumping	Indeno(1,2,3-cd)pyrene	0.288	µg/L	U
MSU unfiltered pumping	Iodine-129	1.75	pCi/L	--
MSU filtered pumping	Iodine-129	1.52	pCi/L	--
MSU unfiltered pumping	Iron	45.7	µg/L	B
MSU filtered pumping	Iron	114	µg/L	--
MSU unfiltered pumping	Isophorone	3.3	µg/L	U
MSU filtered pumping	Isophorone	3.37	µg/L	U
MSU unfiltered pumping	Lead	3.3	µg/L	U
MSU filtered pumping	Lead	3.3	µg/L	U
MSU unfiltered pumping	Magnesium	39,400	µg/L	--

Table B-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 2, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	Magnesium	39,900	µg/L	--
MSU unfiltered pumping	Manganese	116	µg/L	--
MSU filtered pumping	Manganese	137	µg/L	--
MSU unfiltered pumping	Mercury	0.067	µg/L	UN
MSU filtered pumping	Mercury	0.067	µg/L	UN
MSU unfiltered pumping	Methoxychlor	0.0481	µg/L	U
MSU filtered pumping	Methoxychlor	0.0455	µg/L	U
MSU unfiltered pumping	Methylene chloride	1.6	µg/L	U
MSU filtered pumping	Methylene chloride	1.6	µg/L	U
MSU unfiltered pumping	Molybdenum	27.7	µg/L	--
MSU filtered pumping	Molybdenum	28.5	µg/L	--
MSU unfiltered pumping	Nickel	11.1	µg/L	--
MSU filtered pumping	Nickel	10.8	µg/L	--
MSU unfiltered pumping	Nickel-63	-5.5	pCi/L	U
MSU filtered pumping	Nickel-63	-9.29	pCi/L	U
MSU unfiltered pumping	Nitrobenzene	2.83	µg/L	U
MSU filtered pumping	Nitrobenzene	2.88	µg/L	U
MSU unfiltered pumping	Nitrogen in Nitrate	0.89	mg/L	D
MSU filtered pumping	Nitrogen in Nitrate	0.87	mg/L	D
MSU unfiltered pumping	n-Nitrosodi-n-propylamine	2.83	µg/L	U
MSU filtered pumping	n-Nitrosodi-n-propylamine	2.88	µg/L	U
MSU unfiltered pumping	pH Measurement	7.91	unitless	--
MSU filtered pumping	pH Measurement	7.87	unitless	--
MSU unfiltered pumping	Phenanthrene	0.283	µg/L	U
MSU filtered pumping	Phenanthrene	0.288	µg/L	U
MSU unfiltered pumping	Phosphorus	13,700	µg/L	--
MSU filtered pumping	Phosphorus	13,900	µg/L	--
MSU unfiltered pumping	Plutonium-238	0.195	pCi/L	U
MSU filtered pumping	Plutonium-238	0.324	pCi/L	U
MSU unfiltered pumping	Plutonium-239/240	0.0714	pCi/L	U
MSU filtered pumping	Plutonium-239/240	0.0912	pCi/L	U
MSU unfiltered pumping	Potassium	29,900	µg/L	--

Table B-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 2, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	Potassium	31200	µg/L	--
MSU unfiltered pumping	Pyrene	0.283	µg/L	U
MSU filtered pumping	Pyrene	0.288	µg/L	U
MSU unfiltered pumping	Selenium	6	µg/L	U
MSU filtered pumping	Selenium	6	µg/L	U
MSU unfiltered pumping	Silver	1	µg/L	U
MSU filtered pumping	Silver	1	µg/L	U
MSU unfiltered pumping	Sodium	730,000	µg/L	D
MSU filtered pumping	Sodium	747,000	µg/L	D
MSU unfiltered pumping	Specific conductance	4,128	µS/cm	--
MSU filtered pumping	Specific conductance	4,176	µS/cm	--
MSU unfiltered pumping	Strontium	200	µg/L	--
MSU filtered pumping	Strontium	201	µg/L	--
MSU unfiltered pumping	Styrene	0.3	µg/L	TU
MSU filtered pumping	Styrene	0.3	µg/L	TU
MSU unfiltered pumping	Sulfate	110	mg/L	D
MSU filtered pumping	Sulfate	120	mg/L	D
MSU unfiltered pumping	Technetium-99	36.2	pCi/L	U
MSU filtered pumping	Technetium-99	24.4	pCi/L	U
MSU unfiltered pumping	Temperature	18.1	°C	--
MSU filtered pumping	Temperature	17.7	°C	--
MSU unfiltered pumping	Tetrachloroethene	0.3	µg/L	U
MSU filtered pumping	Tetrachloroethene	0.3	µg/L	U
MSU unfiltered pumping	Toluene	0.3	µg/L	U
MSU filtered pumping	Toluene	0.3	µg/L	U
MSU unfiltered pumping	Total beta radiostrontium	2.23	pCi/L	--
MSU filtered pumping	Total beta radiostrontium	2.01	pCi/L	--
MSU unfiltered pumping	Total dissolved solids	2,350,000	µg/L	--
MSU filtered pumping	Total dissolved solids	2,320,000	µg/L	--
MSU unfiltered pumping	Total petroleum hydrocarbons – diesel range	528	µg/L	--
MSU filtered pumping	Total petroleum hydrocarbons – diesel range	582	µg/L	--
MSU unfiltered pumping	Total petroleum hydrocarbons – gasoline range	105	µg/L	--

Table B-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 2, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	Total petroleum hydrocarbons – gasoline range	104	µg/L	--
MSU unfiltered pumping	Total petroleum hydrocarbons – kerosene range	283	µg/L	--
MSU filtered pumping	Total petroleum hydrocarbons – kerosene range	291	µg/L	--
MSU unfiltered pumping	Total petroleum hydrocarbons – motor oil (high boiling)	236	µg/L	--
MSU filtered pumping	Total petroleum hydrocarbons – motor oil (high boiling)	333	µg/L	--
MSU unfiltered pumping	Total suspended solids	0.645	mg/L	B
MSU filtered pumping	Total suspended solids	1.48	mg/L	B
MSU unfiltered pumping	Toxaphene	0.144	µg/L	U
MSU filtered pumping	Toxaphene	0.136	µg/L	U
MSU unfiltered pumping	trans-1,3-Dichloropropene	0.3	µg/L	U
MSU filtered pumping	trans-1,3-Dichloropropene	0.3	µg/L	U
MSU unfiltered pumping	trans-Chlordane	0.00639	µg/L	U
MSU filtered pumping	trans-Chlordane	0.00605	µg/L	U
MSU unfiltered pumping	Trichloroethene	0.3	µg/L	U
MSU filtered pumping	Trichloroethene	0.3	µg/L	U
MSU unfiltered pumping	Tritium	3,520	pCi/L	--
MSU filtered pumping	Tritium	3,540	pCi/L	--
MSU unfiltered pumping	Turbidity	4.18	NTU	--
MSU filtered pumping	Turbidity	4.07	NTU	--
MSU unfiltered pumping	Uranium	1.36	µg/L	--
MSU filtered pumping	Uranium	1.46	µg/L	--
MSU unfiltered pumping	Uranium-233/234	0.604	pCi/L	--
MSU filtered pumping	Uranium-233/234	0.851	pCi/L	--
MSU unfiltered pumping	Uranium-235	0.176	pCi/L	U
MSU filtered pumping	Uranium-235	0.349	pCi/L	U
MSU unfiltered pumping	Uranium-238	0.57	pCi/L	--
MSU filtered pumping	Uranium-238	0.602	pCi/L	--
MSU unfiltered pumping	Vanadium	3.83	µg/L	B
MSU filtered pumping	Vanadium	4.51	µg/L	B
MSU unfiltered pumping	Vinyl chloride	0.3	µg/L	U

Table B-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 2, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	Vinyl chloride	0.3	µg/L	U
MSU unfiltered pumping	Xylenes (total)	0.3	µg/L	U
MSU filtered pumping	Xylenes (total)	0.3	µg/L	U
MSU unfiltered pumping	Zinc	9.49	µg/L	B
MSU filtered pumping	Zinc	25.2	µg/L	--

Laboratory qualifiers:

-- = The value presented represents the concentration, or activity, within the accuracy of the analytical method which is typically +/- 20%.

B = analyte was detected in both the associated quality control blank and in the sample

D = reported value is from dilution

J = result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value

N = Spike Recovery is outside the control limits and accuracy is compromised for this sample

T = spike and/or spike duplicate sample recovery is outside control limits

U = below detection limit; value shown is detection limit

X = presence of chlorine, dosed to the MSU to oxidize iron and manganese and to remove algae and bacteria, interfered with these analyses; samples did not meet surrogate recover acceptance criteria; spike recoveries were outside the acceptance limits; and the laboratory control sample spike recoveries were outside the acceptance limits

MSU = modular storage unit

NTU = nephelometric turbidity unit

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Appendix C

Constituents of Modular Storage Unit #3 During Optimization Test, July 10, 2018

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Table C-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 10, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	1,1,1-Trichloroethane	0.3	µg/L	U
MSU unfiltered pumping	1,1,1-Trichloroethane	0.3	µg/L	U
MSU filtered pumping	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
MSU unfiltered pumping	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
MSU filtered pumping	1,1,2-Trichloroethane	0.3	µg/L	U
MSU unfiltered pumping	1,1,2-Trichloroethane	0.3	µg/L	U
MSU unfiltered pumping	1,1-Dichloroethane	0.3	µg/L	U
MSU filtered pumping	1,1-Dichloroethane	0.3	µg/L	U
MSU filtered pumping	1,1-Dichloroethene	0.3	µg/L	U
MSU unfiltered pumping	1,1-Dichloroethene	0.3	µg/L	U
MSU filtered pumping	1,2,4-Trichlorobenzene	2.88	µg/L	U
MSU unfiltered pumping	1,2,4-Trichlorobenzene	2.91	µg/L	U
MSU unfiltered pumping	1,2-Dichlorobenzene	2.91	µg/L	U
MSU filtered pumping	1,2-Dichlorobenzene	2.88	µg/L	U
MSU unfiltered pumping	1,2-Dichloroethane	0.3	µg/L	U
MSU filtered pumping	1,2-Dichloroethane	0.3	µg/L	U
MSU unfiltered pumping	1,2-Dichloroethene (total)	0.3	µg/L	U
MSU filtered pumping	1,2-Dichloroethene (total)	0.3	µg/L	U
MSU unfiltered pumping	1,2-Dichloropropane	0.3	µg/L	U
MSU filtered pumping	1,2-Dichloropropane	0.3	µg/L	U
MSU unfiltered pumping	1,3-Dichlorobenzene	2.91	µg/L	U
MSU filtered pumping	1,3-Dichlorobenzene	2.88	µg/L	U
MSU filtered pumping	1,4-Dichlorobenzene	2.88	µg/L	U
MSU unfiltered pumping	1,4-Dichlorobenzene	2.91	µg/L	U
MSU unfiltered pumping	2-(2-methyl-4-chlorophenoxy) propionic acid	1,600	µg/L	DTU
MSU filtered pumping	2-(2-methyl-4-chlorophenoxy) propionic acid	1,670	µg/L	DTU
MSU unfiltered pumping	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	8.01	µg/L	DTU
MSU filtered pumping	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	8.33	µg/L	DTU
MSU unfiltered pumping	2,4,5-TP(2-(2,4,5-Trichlorophenoxy) propionic acid)Silvex	8.01	µg/L	DTU
MSU filtered pumping	2,4,5-TP(2-(2,4,5-Trichlorophenoxy) propionic acid)Silvex	8.33	µg/L	DTU
MSU unfiltered pumping	2,4,5-Trichlorophenol	2.91	µg/L	U

Table C-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 10, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	2,4,5-Trichlorophenol	2.88	µg/L	U
MSU unfiltered pumping	2,4-D(2,4-Dichlorophenoxyacetic acid)	8.01	µg/L	DTU
MSU filtered pumping	2,4-D(2,4-Dichlorophenoxyacetic acid)	8.33	µg/L	DTU
MSU unfiltered pumping	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	8.87	µg/L	DTU
MSU filtered pumping	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	9.23	µg/L	DTU
MSU filtered pumping	2,4-Dimethylphenol	2.88	µg/L	U
MSU unfiltered pumping	2,4-Dimethylphenol	2.91	µg/L	U
MSU unfiltered pumping	2,4-Dinitrophenol	4.85	µg/L	U
MSU filtered pumping	2,4-Dinitrophenol	4.81	µg/L	U
MSU filtered pumping	2,4-Dinitrotoluene	2.88	µg/L	U
MSU unfiltered pumping	2,4-Dinitrotoluene	2.91	µg/L	U
MSU unfiltered pumping	2,6-Dinitrotoluene	2.91	µg/L	U
MSU filtered pumping	2,6-Dinitrotoluene	2.88	µg/L	U
MSU filtered pumping	2-Butanone	10.5	µg/L	T
MSU unfiltered pumping	2-Butanone	11.3	µg/L	T
MSU unfiltered pumping	2-Chloronaphthalene	0.398	µg/L	U
MSU filtered pumping	2-Chloronaphthalene	0.394	µg/L	U
MSU unfiltered pumping	2-Chlorophenol	2.91	µg/L	U
MSU filtered pumping	2-Chlorophenol	2.88	µg/L	U
MSU unfiltered pumping	2-Hexanone	3	µg/L	TU
MSU filtered pumping	2-Hexanone	3	µg/L	TU
MSU unfiltered pumping	2-Methyl-4 chlorophenoxyacetic acid	1,600	µg/L	DTU
MSU filtered pumping	2-Methyl-4 chlorophenoxyacetic acid	1,670	µg/L	DTU
MSU unfiltered pumping	2-Methylnaphthalene	0.291	µg/L	U
MSU filtered pumping	2-Methylnaphthalene	0.288	µg/L	U
MSU filtered pumping	2-Nitroaniline	2.88	µg/L	U
MSU unfiltered pumping	2-Nitroaniline	2.91	µg/L	U
MSU filtered pumping	3,3'-Dichlorobenzidine	2.88	µg/L	TU
MSU unfiltered pumping	3,3'-Dichlorobenzidine	2.91	µg/L	TU
MSU filtered pumping	3-Nitroaniline	2.88	µg/L	U
MSU unfiltered pumping	3-Nitroaniline	2.91	µg/L	U

Table C-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 10, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00971	µg/L	U
MSU unfiltered pumping	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00962	µg/L	U
MSU filtered pumping	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00971	µg/L	U
MSU unfiltered pumping	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00962	µg/L	U
MSU filtered pumping	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00971	µg/L	U
MSU unfiltered pumping	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00962	µg/L	U
MSU unfiltered pumping	4,6-Dinitro-2-methylphenol	2.91	µg/L	U
MSU filtered pumping	4,6-Dinitro-2-methylphenol	2.88	µg/L	U
MSU unfiltered pumping	4-Bromophenylphenyl ether	2.91	µg/L	U
MSU filtered pumping	4-Bromophenylphenyl ether	2.88	µg/L	U
MSU unfiltered pumping	4-Chloro-3-methylphenol	2.91	µg/L	U
MSU filtered pumping	4-Chloro-3-methylphenol	2.88	µg/L	U
MSU filtered pumping	4-Chloroaniline	3.17	µg/L	U
MSU unfiltered pumping	4-Chloroaniline	3.2	µg/L	U
MSU filtered pumping	4-Chlorophenylphenyl ether	2.88	µg/L	U
MSU unfiltered pumping	4-Chlorophenylphenyl ether	2.91	µg/L	U
MSU filtered pumping	4-Methyl-2-pentanone	3	µg/L	U
MSU unfiltered pumping	4-Methyl-2-pentanone	3	µg/L	U
MSU unfiltered pumping	4-Nitroaniline	2.91	µg/L	U
MSU filtered pumping	4-Nitroaniline	2.88	µg/L	U
MSU unfiltered pumping	4-Nitrophenol	2.91	µg/L	U
MSU filtered pumping	4-Nitrophenol	2.88	µg/L	U
MSU unfiltered pumping	Acenaphthene	0.291	µg/L	U
MSU filtered pumping	Acenaphthene	0.288	µg/L	U
MSU filtered pumping	Acenaphthylene	0.288	µg/L	TU
MSU unfiltered pumping	Acenaphthylene	0.291	µg/L	TU
MSU filtered pumping	Acetone	32.1	µg/L	T
MSU unfiltered pumping	Acetone	34.1	µg/L	T
MSU filtered pumping	Aldrin	0.00646	µg/L	U
MSU unfiltered pumping	Aldrin	0.00639	µg/L	U
MSU unfiltered pumping	Alkalinity	300,000	µg/L	--
MSU filtered pumping	Alkalinity	303,000	µg/L	--

Table C-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 10, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU unfiltered pumping	Alpha-BHC	0.00639	µg/L	U
MSU filtered pumping	Alpha-BHC	0.00646	µg/L	U
MSU filtered pumping	Alpha-Chlordane	0.00646	µg/L	U
MSU unfiltered pumping	Alpha-Chlordane	0.00639	µg/L	U
MSU unfiltered pumping	Aluminum	68	µg/L	U
MSU filtered pumping	Aluminum	68	µg/L	U
MSU unfiltered pumping	Americium-241	-0.162	pCi/L	U
MSU filtered pumping	Americium-241	0.278	pCi/L	U
MSU unfiltered pumping	Anthracene	0.291	µg/L	U
MSU filtered pumping	Anthracene	0.288	µg/L	U
MSU filtered pumping	Antimony	5.52	µg/L	B
MSU unfiltered pumping	Antimony	6.66	µg/L	B
MSU filtered pumping	Aroclor 1016	0.0323	µg/L	U
MSU unfiltered pumping	Aroclor 1016	0.032	µg/L	U
MSU unfiltered pumping	Aroclor 1221	0.032	µg/L	U
MSU filtered pumping	Aroclor 1221	0.0323	µg/L	U
MSU filtered pumping	Aroclor 1232	0.0323	µg/L	U
MSU unfiltered pumping	Aroclor 1232	0.032	µg/L	U
MSU unfiltered pumping	Aroclor 1242	0.032	µg/L	U
MSU filtered pumping	Aroclor 1242	0.0323	µg/L	U
MSU unfiltered pumping	Aroclor 1248	0.032	µg/L	U
MSU filtered pumping	Aroclor 1248	0.0323	µg/L	U
MSU unfiltered pumping	Aroclor 1254	0.032	µg/L	U
MSU filtered pumping	Aroclor 1254	0.0323	µg/L	U
MSU filtered pumping	Aroclor 1260	0.0323	µg/L	U
MSU unfiltered pumping	Aroclor 1260	0.032	µg/L	U
MSU filtered pumping	Arsenic	5	µg/L	U
MSU unfiltered pumping	Arsenic	5	µg/L	U
MSU filtered pumping	Barium	11.1	µg/L	--
MSU unfiltered pumping	Barium	12.5	µg/L	--
MSU filtered pumping	Benzene	0.3	µg/L	U
MSU unfiltered pumping	Benzene	0.3	µg/L	U

Table C-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 10, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	Benzo(a)anthracene	0.288	µg/L	U
MSU unfiltered pumping	Benzo(a)anthracene	0.291	µg/L	U
MSU unfiltered pumping	Benzo(a)pyrene	0.291	µg/L	U
MSU filtered pumping	Benzo(a)pyrene	0.288	µg/L	U
MSU filtered pumping	Benzo(b)fluoranthene	0.288	µg/L	U
MSU unfiltered pumping	Benzo(b)fluoranthene	0.291	µg/L	U
MSU unfiltered pumping	Benzo(ghi)perylene	0.291	µg/L	U
MSU filtered pumping	Benzo(ghi)perylene	0.288	µg/L	U
MSU filtered pumping	Benzo(k)fluoranthene	0.288	µg/L	U
MSU unfiltered pumping	Benzo(k)fluoranthene	0.291	µg/L	U
MSU unfiltered pumping	Beryllium	1	µg/L	U
MSU filtered pumping	Beryllium	1	µg/L	U
MSU unfiltered pumping	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00639	µg/L	U
MSU filtered pumping	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00646	µg/L	U
MSU unfiltered pumping	Bicarbonate	300,000	µg/L	--
MSU filtered pumping	Bicarbonate	303,000	µg/L	--
MSU unfiltered pumping	Bis(2-chloro-1-methylethyl)ether	2.91	µg/L	U
MSU filtered pumping	Bis(2-chloro-1-methylethyl)ether	2.88	µg/L	U
MSU unfiltered pumping	Bis(2-Chloroethoxy)methane	2.91	µg/L	U
MSU filtered pumping	Bis(2-Chloroethoxy)methane	2.88	µg/L	U
MSU unfiltered pumping	Bis(2-chloroethyl) ether	2.91	µg/L	U
MSU filtered pumping	Bis(2-chloroethyl) ether	2.88	µg/L	U
MSU unfiltered pumping	Boron	218	µg/L	--
MSU filtered pumping	Boron	216	µg/L	--
MSU unfiltered pumping	Bromodichloromethane	81.6	µg/L	--
MSU filtered pumping	Bromodichloromethane	81.5	µg/L	--
MSU unfiltered pumping	Bromoform	717	µg/L	D
MSU filtered pumping	Bromoform	742	µg/L	D
MSU filtered pumping	Bromomethane	0.37	µg/L	J
MSU unfiltered pumping	Bromomethane	0.37	µg/L	J
MSU filtered pumping	Butylbenzylphthalate	0.288	µg/L	U

Table C-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 10, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU unfiltered pumping	Butylbenzylphthalate	0.291	µg/L	U
MSU unfiltered pumping	Cadmium	1	µg/L	U
MSU filtered pumping	Cadmium	1	µg/L	U
MSU unfiltered pumping	Calcium	45,600	µg/L	--
MSU filtered pumping	Calcium	44,900	µg/L	--
MSU filtered pumping	Carbazole	0.288	µg/L	TU
MSU unfiltered pumping	Carbazole	0.291	µg/L	TU
MSU unfiltered pumping	Carbon disulfide	1.6	µg/L	U
MSU filtered pumping	Carbon disulfide	1.6	µg/L	U
MSU unfiltered pumping	Carbon tetrachloride	0.49	µg/L	J
MSU filtered pumping	Carbon tetrachloride	0.57	µg/L	J
MSU filtered pumping	Carbonate alkalinity	1450	µg/L	U
MSU unfiltered pumping	Carbonate alkalinity	1450	µg/L	U
MSU filtered pumping	Cesium-137	-1.4	pCi/L	U
MSU unfiltered pumping	Cesium-137	0.338	pCi/L	U
MSU filtered pumping	Chloride	1,300	mg/L	D
MSU unfiltered pumping	Chloride	1,400	mg/L	D
MSU filtered pumping	Chlorobenzene	0.3	µg/L	U
MSU unfiltered pumping	Chlorobenzene	0.3	µg/L	U
MSU filtered pumping	Chloroethane	0.3	µg/L	U
MSU unfiltered pumping	Chloroethane	0.3	µg/L	U
MSU filtered pumping	Chloroform	102	µg/L	D
MSU unfiltered pumping	Chloroform	99.2	µg/L	--
MSU unfiltered pumping	Chloromethane	0.79	µg/L	J
MSU filtered pumping	Chloromethane	0.85	µg/L	J
MSU unfiltered pumping	Chromium	1.17	µg/L	B
MSU filtered pumping	Chromium	1	µg/L	U
MSU unfiltered pumping	Chrysene	0.291	µg/L	U
MSU filtered pumping	Chrysene	0.288	µg/L	U
MSU filtered pumping	cis-1,3-Dichloropropene	0.3	µg/L	U
MSU unfiltered pumping	cis-1,3-Dichloropropene	0.3	µg/L	U
MSU unfiltered pumping	Cobalt	11.5	µg/L	--

Table C-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 10, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	Cobalt	11.9	µg/L	--
MSU unfiltered pumping	Cobalt-60	-1.97	pCi/L	U
MSU filtered pumping	Cobalt-60	-3.18	pCi/L	U
MSU unfiltered pumping	Copper	29.8	µg/L	--
MSU filtered pumping	Copper	39.1	µg/L	--
MSU filtered pumping	Cyanide	1.67	µg/L	U
MSU unfiltered pumping	Cyanide	1.67	µg/L	U
MSU unfiltered pumping	Cyanide amenable to chlorination	1.67	µg/L	U
MSU filtered pumping	Cyanide amenable to chlorination	1.67	µg/L	U
MSU filtered pumping	Dalapon	167	µg/L	DTU
MSU unfiltered pumping	Dalapon	160	µg/L	DTU
MSU unfiltered pumping	Delta-BHC	0.00639	µg/L	U
MSU filtered pumping	Delta-BHC	0.00646	µg/L	U
MSU unfiltered pumping	Dibenz[a,h]anthracene	0.291	µg/L	U
MSU filtered pumping	Dibenz[a,h]anthracene	0.288	µg/L	U
MSU filtered pumping	Dibenzofuran	2.88	µg/L	U
MSU unfiltered pumping	Dibenzofuran	2.91	µg/L	U
MSU unfiltered pumping	Dibromochloromethane	226	µg/L	D
MSU filtered pumping	Dibromochloromethane	246	µg/L	D
MSU unfiltered pumping	Dicamba	8.01	µg/L	DTU
MSU filtered pumping	Dicamba	8.33	µg/L	DTU
MSU filtered pumping	Dichloroprop	8.33	µg/L	DTU
MSU unfiltered pumping	Dichloroprop	8.01	µg/L	DTU
MSU filtered pumping	Dieldrin	0.00971	µg/L	U
MSU unfiltered pumping	Dieldrin	0.00962	µg/L	U
MSU unfiltered pumping	Diethylphthalate	0.291	µg/L	U
MSU filtered pumping	Diethylphthalate	0.288	µg/L	U
MSU unfiltered pumping	Dimethyl phthalate	0.291	µg/L	U
MSU filtered pumping	Dimethyl phthalate	0.288	µg/L	U
MSU filtered pumping	Di-n-butylphthalate	0.288	µg/L	U
MSU unfiltered pumping	Di-n-butylphthalate	0.291	µg/L	U
MSU unfiltered pumping	Di-n-octylphthalate	0.291	µg/L	U

Table C-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 10, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	Di-n-octylphthalate	0.288	µg/L	U
MSU unfiltered pumping	Dinoseb(2-secButyl-4,6-dinitrophenol)	8.01	µg/L	DTU
MSU filtered pumping	Dinoseb(2-secButyl-4,6-dinitrophenol)	8.33	µg/L	DTU
MSU unfiltered pumping	Dissolved oxygen	9.05	mg/L	--
MSU filtered pumping	Dissolved oxygen	9.26	mg/L	--
MSU unfiltered pumping	Endosulfan I	0.00639	µg/L	U
MSU filtered pumping	Endosulfan I	0.00646	µg/L	U
MSU filtered pumping	Endosulfan II	0.00971	µg/L	U
MSU unfiltered pumping	Endosulfan II	0.00962	µg/L	U
MSU filtered pumping	Endosulfan sulfate	0.00971	µg/L	U
MSU unfiltered pumping	Endosulfan sulfate	0.00962	µg/L	U
MSU unfiltered pumping	Endrin	0.00962	µg/L	U
MSU filtered pumping	Endrin	0.00971	µg/L	U
MSU unfiltered pumping	Endrin aldehyde	0.00639	µg/L	TU
MSU filtered pumping	Endrin aldehyde	0.00646	µg/L	TU
MSU unfiltered pumping	Endrin ketone	0.00962	µg/L	U
MSU filtered pumping	Endrin ketone	0.00971	µg/L	U
MSU filtered pumping	Ethylbenzene	0.3	µg/L	U
MSU unfiltered pumping	Ethylbenzene	0.3	µg/L	U
MSU filtered pumping	Europium-152	6.74	pCi/L	U
MSU unfiltered pumping	Europium-152	-10.9	pCi/L	U
MSU filtered pumping	Europium-154	1.91	pCi/L	U
MSU unfiltered pumping	Europium-154	5.48	pCi/L	U
MSU filtered pumping	Europium-155	1.64	pCi/L	U
MSU unfiltered pumping	Europium-155	-4.96	pCi/L	U
MSU filtered pumping	Fluoranthene	0.288	µg/L	U
MSU unfiltered pumping	Fluoranthene	0.291	µg/L	U
MSU unfiltered pumping	Fluorene	0.291	µg/L	U
MSU filtered pumping	Fluorene	0.288	µg/L	U
MSU filtered pumping	Free cyanide	3	µg/L	U
MSU unfiltered pumping	Free cyanide	3	µg/L	U
MSU filtered pumping	Gamma-BHC (Lindane)	0.00646	µg/L	U

Table C-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 10, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU unfiltered pumping	Gamma-BHC (Lindane)	0.00639	µg/L	U
MSU filtered pumping	Gross alpha	-1.39	pCi/L	U
MSU unfiltered pumping	Gross alpha	2.16	pCi/L	U
MSU filtered pumping	Gross beta	35.3	pCi/L	--
MSU unfiltered pumping	Gross beta	36	pCi/L	--
MSU filtered pumping	Heptachlor	0.00646	µg/L	U
MSU unfiltered pumping	Heptachlor	0.00639	µg/L	U
MSU unfiltered pumping	Heptachlor epoxide	0.00639	µg/L	U
MSU filtered pumping	Heptachlor epoxide	0.00646	µg/L	U
MSU unfiltered pumping	Hexachlorobenzene	2.91	µg/L	U
MSU filtered pumping	Hexachlorobenzene	2.88	µg/L	U
MSU unfiltered pumping	Hexachlorobutadiene	2.91	µg/L	U
MSU filtered pumping	Hexachlorobutadiene	2.88	µg/L	U
MSU unfiltered pumping	Hexachlorocyclopentadiene	2.91	µg/L	U
MSU filtered pumping	Hexachlorocyclopentadiene	2.88	µg/L	U
MSU unfiltered pumping	Hexachloroethane	2.91	µg/L	U
MSU filtered pumping	Hexachloroethane	2.88	µg/L	U
MSU unfiltered pumping	Hexavalent chromium	0.0015	mg/L	U
MSU filtered pumping	Hexavalent chromium	0.0015	mg/L	U
MSU filtered pumping	Hydroxylion	1,450	µg/L	U
MSU unfiltered pumping	Hydroxylion	1,450	µg/L	U
MSU unfiltered pumping	Indeno(1,2,3-cd)pyrene	0.291	µg/L	U
MSU filtered pumping	Indeno(1,2,3-cd)pyrene	0.288	µg/L	U
MSU unfiltered pumping	Iodine-129	2.82	pCi/L	--
MSU filtered pumping	Iodine-129	2.33	pCi/L	X
MSU unfiltered pumping	Iron	34.1	µg/L	B
MSU filtered pumping	Iron	30	µg/L	U
MSU unfiltered pumping	Isophorone	3.4	µg/L	U
MSU filtered pumping	Isophorone	3.37	µg/L	U
MSU unfiltered pumping	Lead	3.3	µg/L	U
MSU filtered pumping	Lead	3.3	µg/L	U
MSU filtered pumping	Magnesium	42,300	µg/L	--

Table C-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 10, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU unfiltered pumping	Magnesium	42,600	µg/L	--
MSU unfiltered pumping	Manganese	134	µg/L	--
MSU filtered pumping	Manganese	116	µg/L	--
MSU filtered pumping	Mercury	0.067	µg/L	UN
MSU unfiltered pumping	Mercury	0.067	µg/L	UN
MSU unfiltered pumping	Methoxychlor	0.0481	µg/L	U
MSU filtered pumping	Methoxychlor	0.0485	µg/L	U
MSU filtered pumping	Methylene chloride	1.6	µg/L	U
MSU unfiltered pumping	Methylene chloride	1.6	µg/L	U
MSU unfiltered pumping	Molybdenum	27.2	µg/L	--
MSU filtered pumping	Molybdenum	26.9	µg/L	--
MSU filtered pumping	Nickel	10.9	µg/L	--
MSU unfiltered pumping	Nickel	12.1	µg/L	--
MSU filtered pumping	Nickel-63	-12.2	pCi/L	U
MSU unfiltered pumping	Nickel-63	-0.0693	pCi/L	U
MSU filtered pumping	Nitrobenzene	2.88	µg/L	U
MSU unfiltered pumping	Nitrobenzene	2.91	µg/L	U
MSU unfiltered pumping	Nitrogen in nitrate	2.8	µg/L	UD
MSU filtered pumping	Nitrogen in nitrate	0.13	µg/L	D
MSU unfiltered pumping	n-Nitrosodi-n-propylamine	2.91	µg/L	U
MSU filtered pumping	n-Nitrosodi-n-propylamine	2.88	µg/L	U
MSU filtered pumping	pH Measurement	8.05	unitless	--
MSU unfiltered pumping	pH Measurement	8.3	unitless	--
MSU filtered pumping	Phenanthrene	0.288	µg/L	U
MSU unfiltered pumping	Phenanthrene	0.291	µg/L	U
MSU filtered pumping	Phosphorus	14,900	µg/L	--
MSU unfiltered pumping	Phosphorus	15,200	µg/L	--
MSU unfiltered pumping	Plutonium-238	-0.0134	pCi/L	U
MSU filtered pumping	Plutonium-238	0.422	pCi/L	U
MSU filtered pumping	Plutonium-239/240	0.223	pCi/L	U
MSU unfiltered pumping	Plutonium-239/240	0.0187	pCi/L	U
MSU unfiltered pumping	Potassium	30,100	µg/L	--

Table C-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 10, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	Potassium	30,200	µg/L	--
MSU unfiltered pumping	Pyrene	0.291	µg/L	U
MSU filtered pumping	Pyrene	0.288	µg/L	U
MSU unfiltered pumping	Selenium	6	µg/L	U
MSU filtered pumping	Selenium	6	µg/L	U
MSU filtered pumping	Silver	1	µg/L	U
MSU unfiltered pumping	Silver	1	µg/L	U
MSU filtered pumping	Sodium	811,000	µg/L	D
MSU unfiltered pumping	Sodium	754,000	µg/L	D
MSU filtered pumping	Specific conductance	5,101	µS/cm	--
MSU unfiltered pumping	Specific conductance	4,801	µS/cm	--
MSU filtered pumping	Strontium	215	µg/L	--
MSU unfiltered pumping	Strontium	219	µg/L	--
MSU filtered pumping	Styrene	0.3	µg/L	U
MSU unfiltered pumping	Styrene	0.3	µg/L	U
MSU filtered pumping	Sulfate	130	mg/L	D
MSU unfiltered pumping	Sulfate	140	mg/L	D
MSU unfiltered pumping	Technetium-99	26.5	pCi/L	UO
MSU filtered pumping	Technetium-99	28.9	pCi/L	UO
MSU filtered pumping	Temperature	22.8	°C	--
MSU unfiltered pumping	Temperature	23.5	°C	--
MSU filtered pumping	Tetrachloroethene	0.3	µg/L	U
MSU unfiltered pumping	Tetrachloroethene	0.3	µg/L	U
MSU unfiltered pumping	Toluene	0.3	µg/L	U
MSU filtered pumping	Toluene	0.3	µg/L	U
MSU unfiltered pumping	Total beta radiostrontium	4.06	pCi/L	--
MSU filtered pumping	Total beta radiostrontium	1.49	pCi/L	--
MSU filtered pumping	Total dissolved solids	2,680,000	µg/L	--
MSU unfiltered pumping	Total dissolved solids	2,680,000	µg/L	--
MSU unfiltered pumping	Total petroleum hydrocarbons – diesel range	425	µg/L	--
MSU filtered pumping	Total petroleum hydrocarbons – diesel range	445	µg/L	--
MSU unfiltered pumping	Total petroleum hydrocarbons – gasoline range	155	µg/L	--

Table C-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 10, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	Total petroleum hydrocarbons – gasoline range	148	µg/L	--
MSU filtered pumping	Total petroleum hydrocarbons – kerosene range	253	µg/L	--
MSU unfiltered pumping	Total petroleum hydrocarbons – kerosene range	237	µg/L	--
MSU filtered pumping	Total petroleum hydrocarbons – motor oil (high boiling)	154	µg/L	J
MSU unfiltered pumping	Total petroleum hydrocarbons – motor oil (high boiling)	181	µg/L	J
MSU unfiltered pumping	Total suspended solids	2	mg/L	B
MSU filtered pumping	Total suspended solids	5.6	mg/L	--
MSU filtered pumping	Toxaphene	0.146	µg/L	U
MSU unfiltered pumping	Toxaphene	0.144	µg/L	U
MSU unfiltered pumping	trans-1,3-Dichloropropene	0.3	µg/L	U
MSU filtered pumping	trans-1,3-Dichloropropene	0.3	µg/L	U
MSU filtered pumping	trans-Chlordane	0.00646	µg/L	U
MSU unfiltered pumping	trans-Chlordane	0.00639	µg/L	U
MSU filtered pumping	Trichloroethene	0.3	µg/L	U
MSU unfiltered pumping	Trichloroethene	0.3	µg/L	U
MSU unfiltered pumping	Tritium	3,480	pCi/L	--
MSU filtered pumping	Tritium	3,300	pCi/L	--
MSU filtered pumping	Turbidity	9.31	NTU	--
MSU unfiltered pumping	Turbidity	14.1	NTU	--
MSU filtered pumping	Uranium	1.49	µg/L	--
MSU unfiltered pumping	Uranium	1.51	µg/L	--
MSU filtered pumping	Uranium-233/234	0.878	pCi/L	--
MSU unfiltered pumping	Uranium-233/234	0.701	pCi/L	U
MSU unfiltered pumping	Uranium-235	0.0576	pCi/L	U
MSU filtered pumping	Uranium-235	0.239	pCi/L	U
MSU unfiltered pumping	Uranium-238	0.52	pCi/L	U
MSU filtered pumping	Uranium-238	0.868	pCi/L	--
MSU unfiltered pumping	Vanadium	4.12	µg/L	B
MSU filtered pumping	Vanadium	4.43	µg/L	B
MSU unfiltered pumping	Vinyl chloride	0.3	µg/L	U
MSU filtered pumping	Vinyl chloride	0.3	µg/L	U

Table C-1. Constituents of Modular Storage Unit #3 During Optimization Test, July 10, 2018

Before or After Filtration	Constituent	Value	Units	Laboratory Qualifier
MSU filtered pumping	Xylenes (total)	0.3	μg/L	U
MSU unfiltered pumping	Xylenes (total)	0.3	μg/L	U
MSU unfiltered pumping	Zinc	6.28	μg/L	B
MSU filtered pumping	Zinc	6.62	μg/L	B

Laboratory qualifiers:

-- = The value presented represents the concentration, or activity, within the accuracy of the analytical method which is typically +/- 20%.

B = analyte was detected in both the associated quality control blank and in the sample

D = reported value is from dilution

J = result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value

N = Spike Recovery is outside the control limits and accuracy is compromised for this sample

O = Radiological analyte failed to recover within laboratory control sample limits

T = spike and/or spike duplicate sample recovery is outside control limits

U = below detection limit.; value shown is detection limit

X = presence of chlorine, dosed to the MSU to oxidize iron and manganese and to remove algae and bacteria, interfered with these analyses; samples did not meet surrogate recover acceptance criteria; spike recoveries were outside the acceptance limits and the laboratory control sample spike recoveries were outside the acceptance limits

MSU = modular storage unit

NTU = nephelometric turbidity unit

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Appendix D

Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

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Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	1,1,1-Trichloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	1,1,1-Trichloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	1,1,1-Trichloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	1,1,1-Trichloroethane	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	1,1,1-Trichloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	1,1,2-Trichloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	1,1,2-Trichloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	1,1,2-Trichloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	1,1,2-Trichloroethane	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	1,1,2-Trichloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	1,1-Dichloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	1,1-Dichloroethane	0.3	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	1,1-Dichloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	1,1-Dichloroethane	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	1,1-Dichloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	1,1-Dichloroethene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	1,1-Dichloroethene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	1,1-Dichloroethene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	1,1-Dichloroethene	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	1,1-Dichloroethene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	1,2,4-Trichlorobenzene	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	1,2,4-Trichlorobenzene	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	1,2,4-Trichlorobenzene	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	1,2,4-Trichlorobenzene	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	1,2,4-Trichlorobenzene	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	1,2-Dichlorobenzene	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	1,2-Dichlorobenzene	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	1,2-Dichlorobenzene	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	1,2-Dichlorobenzene	2.86	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	1,2-Dichlorobenzene	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	1,2-Dichloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	1,2-Dichloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	1,2-Dichloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	1,2-Dichloroethane	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	1,2-Dichloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	1,2-Dichloroethene (total)	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	1,2-Dichloroethene (total)	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	1,2-Dichloroethene (total)	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	1,2-Dichloroethene (total)	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	1,2-Dichloroethene (total)	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	1,2-Dichloropropane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	1,2-Dichloropropane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	1,2-Dichloropropane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	1,2-Dichloropropane	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	1,2-Dichloropropane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	1,3-Dichlorobenzene	2.75	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	1,3-Dichlorobenzene	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	1,3-Dichlorobenzene	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	1,3-Dichlorobenzene	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	1,3-Dichlorobenzene	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	1,4-Dichlorobenzene	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	1,4-Dichlorobenzene	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	1,4-Dichlorobenzene	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	1,4-Dichlorobenzene	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	1,4-Dichlorobenzene	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2-(2-methyl-4-chlorophenoxy) propionic acid	80.1	µg/L	DTU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2-(2-methyl-4-chlorophenoxy) propionic acid	157	µg/L	DTU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2-(2-methyl-4-chlorophenoxy) propionic acid	80.1	µg/L	DTU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2-(2-methyl-4-chlorophenoxy) propionic acid	80.9	µg/L	DTU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2-(2-methyl-4-chlorophenoxy) propionic acid	16.2	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.401	µg/L	DU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.786	µg/L	DU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.401	µg/L	DU

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.405	µg/L	DU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.0809	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0.401	µg/L	DTU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0.786	µg/L	DTU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0.401	µg/L	DTU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0.405	µg/L	DTU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0.0809	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2,4,5-Trichlorophenol	2.75	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2,4,5-Trichlorophenol	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2,4,5-Trichlorophenol	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2,4,5-Trichlorophenol	2.86	µg/L	TU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2,4,5-Trichlorophenol	2.83	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0.401	µg/L	DTU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0.786	µg/L	DTU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0.401	µg/L	DTU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0.405	µg/L	DTU

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0.0809	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0.444	µg/L	DTU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0.871	µg/L	DTU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0.444	µg/L	DTU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0.448	µg/L	DTU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0.0896	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2,4-Dimethylphenol	2.75	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2,4-Dimethylphenol	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2,4-Dimethylphenol	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2,4-Dimethylphenol	2.86	µg/L	TU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2,4-Dimethylphenol	2.83	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2,4-Dinitrophenol	4.59	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2,4-Dinitrophenol	4.72	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2,4-Dinitrophenol	4.72	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2,4-Dinitrophenol	4.76	µg/L	TU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2,4-Dinitrophenol	4.72	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2,4-Dinitrotoluene	2.75	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2,4-Dinitrotoluene	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2,4-Dinitrotoluene	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2,4-Dinitrotoluene	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2,4-Dinitrotoluene	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2,6-Dinitrotoluene	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2,6-Dinitrotoluene	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2,6-Dinitrotoluene	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2,6-Dinitrotoluene	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2,6-Dinitrotoluene	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2-Butanone	3	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2-Butanone	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2-Butanone	3	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2-Butanone	3	µg/L	TU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2-Butanone	3	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2-Chloronaphthalene	0.376	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2-Chloronaphthalene	0.387	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2-Chloronaphthalene	0.387	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2-Chloronaphthalene	0.39	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2-Chloronaphthalene	0.387	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2-Chlorophenol	2.75	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2-Chlorophenol	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2-Chlorophenol	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2-Chlorophenol	2.86	µg/L	TU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2-Chlorophenol	2.83	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2-Hexanone	3	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2-Hexanone	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2-Hexanone	3	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2-Hexanone	3	µg/L	TU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2-Hexanone	3	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2-Methyl-4 chlorophenoxyacetic acid	80.1	µg/L	DTU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2-Methyl-4 chlorophenoxyacetic acid	157	µg/L	DTU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2-Methyl-4 chlorophenoxyacetic acid	80.1	µg/L	DTU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2-Methyl-4 chlorophenoxyacetic acid	80.9	µg/L	DTU

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2-Methyl-4 chlorophenoxyacetic acid	16.2	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2-Methylnaphthalene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2-Methylnaphthalene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2-Methylnaphthalene	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2-Methylnaphthalene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2-Methylnaphthalene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	2-Nitroaniline	2.75	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	2-Nitroaniline	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	2-Nitroaniline	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	2-Nitroaniline	2.86	µg/L	TU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	2-Nitroaniline	2.83	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	3,3'-Dichlorobenzidine	2.75	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	3,3'-Dichlorobenzidine	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	3,3'-Dichlorobenzidine	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	3,3'-Dichlorobenzidine	2.86	µg/L	TU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	3,3'-Dichlorobenzidine	2.83	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	3-Nitroaniline	2.75	µg/L	TU

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	3-Nitroaniline	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	3-Nitroaniline	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	3-Nitroaniline	2.86	µg/L	TU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	3-Nitroaniline	2.83	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00962	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00962	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00952	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00971	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.0098	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00962	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00962	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00952	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00971	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.0098	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00962	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00962	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00952	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00971	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.0098	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	4,6-Dinitro-2-methylphenol	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	4,6-Dinitro-2-methylphenol	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	4,6-Dinitro-2-methylphenol	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	4,6-Dinitro-2-methylphenol	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	4,6-Dinitro-2-methylphenol	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	4-Bromophenylphenyl ether	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	4-Bromophenylphenyl ether	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	4-Bromophenylphenyl ether	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	4-Bromophenylphenyl ether	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	4-Bromophenylphenyl ether	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	4-Chloro-3-methylphenol	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	4-Chloro-3-methylphenol	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	4-Chloro-3-methylphenol	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	4-Chloro-3-methylphenol	2.86	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	4-Chloro-3-methylphenol	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	4-Chloroaniline	3.03	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	4-Chloroaniline	3.11	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	4-Chloroaniline	3.11	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	4-Chloroaniline	3.14	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	4-Chloroaniline	3.11	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	4-Chlorophenylphenyl ether	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	4-Chlorophenylphenyl ether	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	4-Chlorophenylphenyl ether	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	4-Chlorophenylphenyl ether	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	4-Chlorophenylphenyl ether	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	4-Methyl-2-pentanone	3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	4-Methyl-2-pentanone	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	4-Methyl-2-pentanone	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	4-Methyl-2-pentanone	3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	4-Methyl-2-pentanone	3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	4-Nitroaniline	2.75	µg/L	TU

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	4-Nitroaniline	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	4-Nitroaniline	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	4-Nitroaniline	2.86	µg/L	TU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	4-Nitroaniline	2.83	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	4-Nitrophenol	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	4-Nitrophenol	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	4-Nitrophenol	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	4-Nitrophenol	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	4-Nitrophenol	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Acenaphthene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Acenaphthene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Acenaphthene	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Acenaphthene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Acenaphthene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Acenaphthylene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Acenaphthylene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Acenaphthylene	0.283	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Acenaphthylene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Acenaphthylene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Acetone	3	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Acetone	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Acetone	3	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Acetone	3	µg/L	TU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Acetone	3	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Aldrin	0.00639	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Aldrin	0.00639	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Aldrin	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Aldrin	0.00646	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Aldrin	0.00652	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Alkalinity	182,000	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Alkalinity	163,000	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Alkalinity	106,000	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Alkalinity	138,000	µg/L	--

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Alkalinity	108,000	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Alpha-BHC	0.00639	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Alpha-BHC	0.00639	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Alpha-BHC	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Alpha-BHC	0.00646	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Alpha-BHC	0.00652	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Alpha-Chlordane	0.00639	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Alpha-Chlordane	0.00639	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Alpha-Chlordane	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Alpha-Chlordane	0.00646	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Alpha-Chlordane	0.00652	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Aluminum	68	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Aluminum	68	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Aluminum	68	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Aluminum	68	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Aluminum	68	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Americium-241	-0.0907	pCi/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Americium-241	0.026	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Americium-241	-0.239	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Americium-241	-0.278	pCi/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Americium-241	-0.0453	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Anthracene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Anthracene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Anthracene	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Anthracene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Anthracene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Antimony	3.5	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Antimony	3.5	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Antimony	3.5	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Antimony	3.5	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Antimony	3.5	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Aroclor 1016	0.0323	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Aroclor 1016	0.0323	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Aroclor 1016	0.0323	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Aroclor 1016	0.032	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Aroclor 1016	0.032	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Aroclor 1221	0.0323	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Aroclor 1221	0.0323	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Aroclor 1221	0.0323	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Aroclor 1221	0.032	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Aroclor 1221	0.032	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Aroclor 1232	0.0323	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Aroclor 1232	0.0323	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Aroclor 1232	0.0323	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Aroclor 1232	0.032	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Aroclor 1232	0.032	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Aroclor 1242	0.0323	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Aroclor 1242	0.0323	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Aroclor 1242	0.0323	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Aroclor 1242	0.032	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Aroclor 1242	0.032	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Aroclor 1248	0.0323	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Aroclor 1248	0.0323	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Aroclor 1248	0.0323	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Aroclor 1248	0.032	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Aroclor 1248	0.032	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Aroclor 1254	0.0323	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Aroclor 1254	0.0323	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Aroclor 1254	0.0323	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Aroclor 1254	0.032	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Aroclor 1254	0.032	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Aroclor 1260	0.0323	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Aroclor 1260	0.0323	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Aroclor 1260	0.0323	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Aroclor 1260	0.032	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Aroclor 1260	0.032	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Arsenic	5	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Arsenic	5	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Arsenic	5	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Arsenic	5	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Arsenic	5	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Barium	66.7	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Barium	85.7	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Barium	30	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Barium	30	µg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Barium	61.6	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Benzene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Benzene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Benzene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Benzene	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Benzene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Benzo(a)anthracene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Benzo(a)anthracene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Benzo(a)anthracene	0.283	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Benzo(a)anthracene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Benzo(a)anthracene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Benzo(a)pyrene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Benzo(a)pyrene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Benzo(a)pyrene	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Benzo(a)pyrene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Benzo(a)pyrene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Benzo(b)fluoranthene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Benzo(b)fluoranthene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Benzo(b)fluoranthene	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Benzo(b)fluoranthene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Benzo(b)fluoranthene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Benzo(ghi)perylene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Benzo(ghi)perylene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Benzo(ghi)perylene	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Benzo(ghi)perylene	0.286	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Benzo(ghi)perylene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Benzo(k)fluoranthene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Benzo(k)fluoranthene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Benzo(k)fluoranthene	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Benzo(k)fluoranthene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Benzo(k)fluoranthene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Beryllium	1	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Beryllium	1	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Beryllium	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Beryllium	1	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Beryllium	1	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00639	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00639	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00646	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00652	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Bicarbonate	182,000	µg/L	--

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Bicarbonate	163,000	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Bicarbonate	106,000	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Bicarbonate	138,000	µg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Bicarbonate	108,000	ug/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Bis(2-chloro-1-methylethyl)ether	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Bis(2-chloro-1-methylethyl)ether	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Bis(2-chloro-1-methylethyl)ether	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Bis(2-chloro-1-methylethyl)ether	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Bis(2-chloro-1-methylethyl)ether	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Bis(2-Chloroethoxy)methane	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Bis(2-Chloroethoxy)methane	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Bis(2-Chloroethoxy)methane	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Bis(2-Chloroethoxy)methane	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Bis(2-Chloroethoxy)methane	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Bis(2-chloroethyl) ether	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Bis(2-chloroethyl) ether	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Bis(2-chloroethyl) ether	2.83	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Bis(2-chloroethyl) ether	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Bis(2-chloroethyl) ether	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Boron	65.2	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Boron	65.6	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Boron	61.6	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Boron	62	µg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Boron	53.2	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Bromodichloromethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Bromodichloromethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Bromodichloromethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Bromodichloromethane	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Bromodichloromethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Bromoform	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Bromoform	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Bromoform	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Bromoform	0.3	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Bromoform	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Bromomethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Bromomethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Bromomethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Bromomethane	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Bromomethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Butylbenzylphthalate	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Butylbenzylphthalate	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Butylbenzylphthalate	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Butylbenzylphthalate	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Butylbenzylphthalate	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Cadmium	1	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Cadmium	1	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Cadmium	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Cadmium	1	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Cadmium	1	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Calcium	56,500	µg/L	--

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Calcium	61,500	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Calcium	58,800	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Calcium	57,900	µg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Calcium	59,500	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Carbazole	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Carbazole	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Carbazole	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Carbazole	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Carbazole	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Carbon disulfide	1.6	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Carbon disulfide	1.6	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Carbon disulfide	1.6	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Carbon disulfide	1.6	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Carbon disulfide	1.6	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Carbon tetrachloride	245	µg/L	D
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Carbon tetrachloride	277	µg/L	D
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Carbon tetrachloride	0.3	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Carbon tetrachloride	23.8	µg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Carbon tetrachloride	443	µg/L	D
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Carbonate alkalinity	1,450	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Carbonate alkalinity	1,450	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Carbonate alkalinity	1,450	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Carbonate alkalinity	1,450	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Carbonate alkalinity	1,450	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Cesium-137	-1.63	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Cesium-137	-2.9	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Cesium-137	2.64	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Cesium-137	2.43	pCi/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Cesium-137	-1.65	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Chloride	27	mg/L	D
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Chloride	25	mg/L	D
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Chloride	44	mg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Chloride	45	mg/L	D

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Chloride	25	mg/L	D
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Chlorobenzene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Chlorobenzene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Chlorobenzene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Chlorobenzene	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Chlorobenzene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Chloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Chloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Chloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Chloroethane	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Chloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Chloroform	7.75	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Chloroform	7.86	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Chloroform	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Chloroform	2.69	µg/L	J
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Chloroform	5.07	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Chloromethane	0.3	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Chloromethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Chloromethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Chloromethane	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Chloromethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Chromium	23.3	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Chromium	45.8	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Chromium	4.82	µg/L	B
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Chromium	4.58	µg/L	B
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Chromium	25	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Chrysene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Chrysene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Chrysene	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Chrysene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Chrysene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	cis-1,3-Dichloropropene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	cis-1,3-Dichloropropene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	cis-1,3-Dichloropropene	0.3	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	cis-1,3-Dichloropropene	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	cis-1,3-Dichloropropene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Cobalt	12.2	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Cobalt	11	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Cobalt	6.01	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Cobalt	7.66	µg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Cobalt	1	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Cobalt-60	0.39	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Cobalt-60	0.193	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Cobalt-60	-3.74	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Cobalt-60	1.81	pCi/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Cobalt-60	-3.85	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Copper	57.7	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Copper	96.7	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Copper	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Copper	3	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Copper	3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Cyanide	1.67	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Cyanide	1.67	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Cyanide	1.67	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Cyanide	1.67	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Cyanide	1.67	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Cyanide amenable to chlorination	1.67	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Cyanide amenable to chlorination	1.67	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Cyanide amenable to chlorination	1.67	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Cyanide amenable to chlorination	1.67	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Cyanide amenable to chlorination	1.67	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Dalapon	8.01	µg/L	DU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Dalapon	15.7	µg/L	DU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Dalapon	8.01	µg/L	DU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Dalapon	8.09	µg/L	DU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Dalapon	1.62	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Delta-BHC	0.00639	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Delta-BHC	0.00639	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Delta-BHC	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Delta-BHC	0.00646	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Delta-BHC	0.00652	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Dibenz[a,h]anthracene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Dibenz[a,h]anthracene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Dibenz[a,h]anthracene	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Dibenz[a,h]anthracene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Dibenz[a,h]anthracene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Dibenzofuran	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Dibenzofuran	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Dibenzofuran	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Dibenzofuran	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Dibenzofuran	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Dibromochloromethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Dibromochloromethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Dibromochloromethane	0.3	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Dibromochloromethane	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Dibromochloromethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Dicamba	0.401	µg/L	DU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Dicamba	0.786	µg/L	DU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Dicamba	0.401	µg/L	DU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Dicamba	0.405	µg/L	DU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Dicamba	0.0809	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Dichloroprop	0.401	µg/L	DU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Dichloroprop	0.786	µg/L	DU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Dichloroprop	0.401	µg/L	DU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Dichloroprop	0.405	µg/L	DU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Dichloroprop	0.0809	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Dieldrin	0.00962	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Dieldrin	0.00962	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Dieldrin	0.00952	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Dieldrin	0.00971	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Dieldrin	0.0098	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Diethylphthalate	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Diethylphthalate	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Diethylphthalate	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Diethylphthalate	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Diethylphthalate	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Dimethyl phthalate	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Dimethyl phthalate	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Dimethyl phthalate	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Dimethyl phthalate	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Dimethyl phthalate	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Di-n-butylphthalate	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Di-n-butylphthalate	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Di-n-butylphthalate	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Di-n-butylphthalate	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Di-n-butylphthalate	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Di-n-octylphthalate	0.275	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Di-n-octylphthalate	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Di-n-octylphthalate	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Di-n-octylphthalate	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Di-n-octylphthalate	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.401	µg/L	DTU
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.786	µg/L	DTU
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.401	µg/L	DTU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.405	µg/L	DTU
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.0809	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Dissolved oxygen	1	mg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Dissolved oxygen	1.15	mg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Dissolved oxygen	8.55	mg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Dissolved oxygen	8.52	mg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Dissolved oxygen	8.86	mg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Endosulfan I	0.00639	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Endosulfan I	0.00639	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Endosulfan I	0.00633	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Endosulfan I	0.00646	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Endosulfan I	0.00652	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Endosulfan II	0.00962	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Endosulfan II	0.00962	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Endosulfan II	0.00952	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Endosulfan II	0.00971	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Endosulfan II	0.0098	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Endosulfan sulfate	0.00962	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Endosulfan sulfate	0.00962	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Endosulfan sulfate	0.00952	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Endosulfan sulfate	0.00971	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Endosulfan sulfate	0.0098	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Endrin	0.00962	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Endrin	0.00962	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Endrin	0.00952	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Endrin	0.00971	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Endrin	0.0098	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Endrin aldehyde	0.00639	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Endrin aldehyde	0.00639	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Endrin aldehyde	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Endrin aldehyde	0.00646	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Endrin aldehyde	0.00652	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Endrin ketone	0.00962	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Endrin ketone	0.00962	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Endrin ketone	0.00952	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Endrin ketone	0.00971	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Endrin ketone	0.0098	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Ethylbenzene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Ethylbenzene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Ethylbenzene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Ethylbenzene	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Ethylbenzene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Europium-152	1.85	pCi/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Europium-152	6.27	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Europium-152	-4.49	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Europium-152	-5.27	pCi/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Europium-152	-4.35	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Europium-154	-5.69	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Europium-154	-1.48	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Europium-154	-6.83	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Europium-154	6.61	pCi/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Europium-154	-2.78	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Europium-155	-2.81	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Europium-155	-2.06	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Europium-155	8.04	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Europium-155	5.57	pCi/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Europium-155	-4.62	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Fluoranthene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Fluoranthene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Fluoranthene	0.283	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Fluoranthene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Fluoranthene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Fluorene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Fluorene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Fluorene	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Fluorene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Fluorene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Free cyanide	1	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Free cyanide	1	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Free cyanide	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Free cyanide	1	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Free cyanide	1	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Gamma-BHC (Lindane)	0.00639	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Gamma-BHC (Lindane)	0.00639	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Gamma-BHC (Lindane)	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Gamma-BHC (Lindane)	0.00646	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Gamma-BHC (Lindane)	0.00652	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Gross alpha	3.91	pCi/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Gross alpha	4.9	pCi/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Gross alpha	2.96	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Gross alpha	2.32	pCi/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Gross alpha	4.42	pCi/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Gross beta	75.5	pCi/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Gross beta	81.6	pCi/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Gross beta	76.2	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Gross beta	67.5	pCi/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Gross beta	82.6	pCi/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Heptachlor	0.00639	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Heptachlor	0.00639	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Heptachlor	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Heptachlor	0.00646	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Heptachlor	0.00652	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Heptachlor epoxide	0.00639	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Heptachlor epoxide	0.00639	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Heptachlor epoxide	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Heptachlor epoxide	0.00646	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Heptachlor epoxide	0.00652	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Hexachlorobenzene	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Hexachlorobenzene	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Hexachlorobenzene	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Hexachlorobenzene	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Hexachlorobenzene	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Hexachlorobutadiene	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Hexachlorobutadiene	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Hexachlorobutadiene	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Hexachlorobutadiene	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Hexachlorobutadiene	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Hexachlorocyclopentadiene	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Hexachlorocyclopentadiene	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Hexachlorocyclopentadiene	2.83	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Hexachlorocyclopentadiene	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Hexachlorocyclopentadiene	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Hexachloroethane	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Hexachloroethane	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Hexachloroethane	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Hexachloroethane	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Hexachloroethane	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Hexavalent chromium	0.018	mg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Hexavalent chromium	0.03	mg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Hexavalent chromium	0.0051	mg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Hexavalent chromium	0.0058	mg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Hexavalent chromium	0.024	mg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Hydroxylion	1,450	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Hydroxylion	1,450	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Hydroxylion	1,450	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Hydroxylion	1,450	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Hydroxylion	1,450	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Indeno(1,2,3-cd)pyrene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Indeno(1,2,3-cd)pyrene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Indeno(1,2,3-cd)pyrene	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Indeno(1,2,3-cd)pyrene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Indeno(1,2,3-cd)pyrene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Iodine-129	0.204	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Iodine-129	0.58	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Iodine-129	0.0832	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Iodine-129	-0.043	pCi/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Iodine-129	1.07	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Iron	2,080	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Iron	2,770	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Iron	30	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Iron	30	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Iron	30	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Isophorone	3.21	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Isophorone	3.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Isophorone	3.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Isophorone	3.33	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Isophorone	3.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Lead	3.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Lead	3.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Lead	3.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Lead	3.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Lead	3.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Magnesium	20,800	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Magnesium	21,900	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Magnesium	22,000	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Magnesium	21,600	µg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Magnesium	21,600	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Manganese	23.1	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Manganese	20.9	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Manganese	27	µg/L	--

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Manganese	35.3	µg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Manganese	2	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Mercury	0.067	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Mercury	0.067	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Mercury	0.067	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Mercury	0.067	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Mercury	0.067	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Methoxychlor	0.0481	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Methoxychlor	0.0481	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Methoxychlor	0.0476	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Methoxychlor	0.0485	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Methoxychlor	0.049	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Methylene chloride	1.6	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Methylene chloride	1.6	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Methylene chloride	1.6	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Methylene chloride	1.6	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Methylene chloride	1.6	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Molybdenum	17.8	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Molybdenum	16.6	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Molybdenum	16.5	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Molybdenum	16.4	µg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Molybdenum	4.47	µg/L	B
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Nickel	5.2	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Nickel	5.63	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Nickel	3.57	µg/L	B
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Nickel	2.71	µg/L	B
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Nickel	1.5	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Nickel-63	3.25	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Nickel-63	-2.74	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Nickel-63	-2.88	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Nickel-63	1.71	pCi/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Nickel-63	-8.26	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Nitrobenzene	2.75	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Nitrobenzene	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Nitrobenzene	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Nitrobenzene	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Nitrobenzene	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Nitrogen in nitrate	0.19	mg/L	D
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Nitrogen in Nitrate	1.4	mg/L	D
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Nitrogen in nitrate	12	mg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Nitrogen in nitrate	10	mg/L	D
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Nitrogen in nitrate	31	mg/L	D
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	n-Nitrosodi-n-propylamine	2.75	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	n-Nitrosodi-n-propylamine	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	n-Nitrosodi-n-propylamine	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	n-Nitrosodi-n-propylamine	2.86	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	n-Nitrosodi-n-propylamine	2.83	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	pH Measurement	6.9	unitless	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	pH Measurement	6.93	unitless	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	pH Measurement	7.02	unitless	--

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	pH Measurement	7.63	unitless	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	pH Measurement	7.43	unitless	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Phenanthrene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Phenanthrene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Phenanthrene	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Phenanthrene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Phenanthrene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Phosphorus	2,170	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Phosphorus	2,420	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Phosphorus	87.3	µg/L	B
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Phosphorus	89.2	µg/L	B
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Phosphorus	60	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Plutonium-238	-0.0193	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Plutonium-238	0.129	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Plutonium-238	-0.0288	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Plutonium-238	0.119	pCi/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Plutonium-238	0.315	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Plutonium-239/240	0.0418	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Plutonium-239/240	0.302	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Plutonium-239/240	0.331	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Plutonium-239/240	0.0475	pCi/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Plutonium-239/240	0.111	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Potassium	5,290	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Potassium	5,670	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Potassium	5,240	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Potassium	5,240	µg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Potassium	5,110	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Pyrene	0.275	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Pyrene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Pyrene	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Pyrene	0.286	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Pyrene	0.283	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Selenium	6	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Selenium	6.85	µg/L	B
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Selenium	6	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Selenium	6	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Selenium	7.43	µg/L	B
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Silver	1	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Silver	1	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Silver	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Silver	1	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Silver	1	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Sodium	22,100	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Sodium	22,300	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Sodium	21,700	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Sodium	21,800	µg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Sodium	22,100	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Specific conductance	577	µS/cm	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Specific conductance	593	µS/cm	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Specific conductance	669	µS/cm	--

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Specific conductance	602	µS/cm	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Specific conductance	630	µS/cm	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Strontium	264	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Strontium	281	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Strontium	263	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Strontium	258	µg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Strontium	268	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Styrene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Styrene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Styrene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Styrene	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Styrene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Sulfate	64	mg/L	D
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Sulfate	63	mg/L	D
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Sulfate	86	mg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Sulfate	64	mg/L	D

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Sulfate	63	mg/L	D
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Technetium-99	101	pCi/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Technetium-99	89.3	pCi/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Technetium-99	103	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Technetium-99	72.5	pCi/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Technetium-99	107	pCi/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Temperature	20.4	°C	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Temperature	20.3	°C	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Temperature	20.8	°C	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Temperature	20.3	°C	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Temperature	21	°C	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Tetrachloroethene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Tetrachloroethene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Tetrachloroethene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Tetrachloroethene	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Tetrachloroethene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Toluene	0.3	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Toluene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Toluene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Toluene	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Toluene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Total beta radiostrontium	-1.09	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Total beta radiostrontium	0.359	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Total beta radiostrontium	0.115	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Total beta radiostrontium	-0.923	pCi/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Total beta radiostrontium	0.395	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Total dissolved solids	351,000	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Total dissolved solids	363,000	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Total dissolved solids	451,000	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Total dissolved solids	396,000	µg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Total dissolved solids	434,000	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Total petroleum hydrocarbons – diesel range	71.4	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Total petroleum hydrocarbons – diesel range	71.4	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Total petroleum hydrocarbons – diesel range	70.8	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Total petroleum hydrocarbons – diesel range	72.1	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Total petroleum hydrocarbons – diesel range	75	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Total petroleum hydrocarbons – gasoline range	36.5	µg/L	J
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Total petroleum hydrocarbons – gasoline range	37.6	µg/L	J
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Total petroleum hydrocarbons – gasoline range	28.8	µg/L	J
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Total petroleum hydrocarbons – gasoline range	19.1	µg/L	J
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Total petroleum hydrocarbons – gasoline range	54.8	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Total petroleum hydrocarbons – kerosene range	31.7	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Total petroleum hydrocarbons – kerosene range	31.7	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Total petroleum hydrocarbons – kerosene range	31.4	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Total petroleum hydrocarbons – kerosene range	32	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Total petroleum hydrocarbons – kerosene range	33.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Total petroleum hydrocarbons – motor oil (high boiling)	71.4	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Total petroleum hydrocarbons – motor oil (high boiling)	71.4	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Total petroleum hydrocarbons – motor oil (high boiling)	70.8	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Total petroleum hydrocarbons – motor oil (high boiling)	72.1	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Total petroleum hydrocarbons – motor oil (high boiling)	75	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Total suspended solids	64	mg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Total suspended solids	60	mg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Total suspended solids	0.57	mg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Total suspended solids	0.57	mg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Total suspended solids	8.1	mg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Toxaphene	0.144	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Toxaphene	0.144	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Toxaphene	0.143	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Toxaphene	0.146	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Toxaphene	0.147	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	trans-1,3-Dichloropropene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	trans-1,3-Dichloropropene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	trans-1,3-Dichloropropene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	trans-1,3-Dichloropropene	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	trans-1,3-Dichloropropene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	trans-Chlordane	0.00639	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	trans-Chlordane	0.00639	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	trans-Chlordane	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	trans-Chlordane	0.00646	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	trans-Chlordane	0.00652	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Trichloroethene	1.71	µg/L	J
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Trichloroethene	2.32	µg/L	J
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Trichloroethene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Trichloroethene	0.37	µg/L	J
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Trichloroethene	3.71	µg/L	J
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Tritium	2,730	pCi/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Tritium	3,080	pCi/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Tritium	2,580	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Tritium	2,700	pCi/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Tritium	2,660	pCi/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Turbidity	29.9	NTU	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Turbidity	43.8	NTU	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Turbidity	1.7	NTU	--

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Turbidity	0.21	NTU	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Turbidity	0.43	NTU	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Uranium	1.1	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Uranium	1.05	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Uranium	0.858	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Uranium	0.92	µg/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Uranium	1.06	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Uranium-233/234	0.614	pCi/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Uranium-233/234	0.844	pCi/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Uranium-233/234	0.815	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Uranium-233/234	1.16	pCi/L	--
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Uranium-233/234	0.71	pCi/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Uranium-235	-0.0223	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Uranium-235	0.0832	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Uranium-235	0.0688	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Uranium-235	0.319	pCi/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Uranium-235	0.225	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Uranium-238	0.397	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Uranium-238	0.221	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Uranium-238	0.354	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Uranium-238	0.375	pCi/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Uranium-238	0.695	pCi/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Vanadium	27	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Vanadium	30.5	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Vanadium	3.64	µg/L	B
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Vanadium	3.51	µg/L	B
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Vanadium	24.7	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Vinyl chloride	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Vinyl chloride	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Vinyl chloride	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Vinyl chloride	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Vinyl chloride	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Xylenes (total)	0.3	µg/L	U

Table D-1. Sample Results at 200 West Pump and Treat Before Introduction of Water from Modular Storage Unit, June 18, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Xylenes (total)	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Xylenes (total)	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Xylenes (total)	0.3	µg/L	U
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Xylenes (total)	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	18-Jun-18	Zinc	35.2	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	18-Jun-18	Zinc	27.6	µg/L	--
EFFLUENT TANK VALVE V07-Y80	18-Jun-18	Zinc	3.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	18-Jun-18	Zinc	5.5	µg/L	B
200 WEST BIOTREATMENT BLDG 289-T INFLUENT TANK VALVE V12-Y30	18-Jun-18	Zinc	3.3	µg/L	U

Laboratory qualifiers:

-- = The value presented represents the concentration, or activity, within the accuracy of the analytical method which is typically +/- 20%

B = analyte was detected in both the associated quality control blank and in the sample

D = reported value is from dilution

J = result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value

T = spike and/or spike duplicate sample recovery is outside control limits

U = below detection limit.; value shown is detection limit

FBR = fluidized bed reactor

NTU = nephelometric turbidity unit

Appendix E

Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

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Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	1,1,1-Trichloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	1,1,1-Trichloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	1,1,1-Trichloroethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	1,1,1-Trichloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	1,1,1-Trichloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	1,1,2-Trichloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	1,1,2-Trichloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	1,1,2-Trichloroethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	1,1,2-Trichloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	1,1,2-Trichloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	1,1-Dichloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	1,1-Dichloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	1,1-Dichloroethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	1,1-Dichloroethane	0.3	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	1,1-Dichloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	1,1-Dichloroethene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	1,1-Dichloroethene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	1,1-Dichloroethene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	1,1-Dichloroethene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	1,1-Dichloroethene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	1,2,4-Trichlorobenzene	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	1,2,4-Trichlorobenzene	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	1,2,4-Trichlorobenzene	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	1,2,4-Trichlorobenzene	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	1,2,4-Trichlorobenzene	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	1,2-Dichlorobenzene	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	1,2-Dichlorobenzene	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	1,2-Dichlorobenzene	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	1,2-Dichlorobenzene	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	1,2-Dichlorobenzene	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	1,2-Dichloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	1,2-Dichloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	1,2-Dichloroethane	0.3	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	05-Jul-18	1,2-Dichloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	1,2-Dichloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	1,2-Dichloroethene (total)	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	1,2-Dichloroethene (total)	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	1,2-Dichloroethene (total)	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	1,2-Dichloroethene (total)	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	1,2-Dichloroethene (total)	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	1,2-Dichloropropane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	1,2-Dichloropropane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	1,2-Dichloropropane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	1,2-Dichloropropane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	1,2-Dichloropropane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	1,3-Dichlorobenzene	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	1,3-Dichlorobenzene	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	1,3-Dichlorobenzene	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	1,3-Dichlorobenzene	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	1,3-Dichlorobenzene	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	1,4-Dichlorobenzene	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	1,4-Dichlorobenzene	2.83	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	1,4-Dichlorobenzene	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	1,4-Dichlorobenzene	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	1,4-Dichlorobenzene	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2-(2-methyl-4-chlorophenoxy) propionic acid	15.9	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2-(2-methyl-4-chlorophenoxy) propionic acid	14.1	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2-(2-methyl-4-chlorophenoxy) propionic acid	15.7	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2-(2-methyl-4-chlorophenoxy) propionic acid	15.7	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2-(2-methyl-4-chlorophenoxy) propionic acid	15.7	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.0794	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.0706	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.0786	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.0786	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.0786	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy) propionic acid)Silvex	0.0794	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy) propionic acid)Silvex	0.0706	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy) propionic acid)Silvex	0.0786	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy) propionic acid)Silvex	0.0786	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy) propionic acid)Silvex	0.0786	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2,4,5-Trichlorophenol	2.68	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2,4,5-Trichlorophenol	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2,4,5-Trichlorophenol	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2,4,5-Trichlorophenol	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2,4,5-Trichlorophenol	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2,4-D(2,4-Dichloro- phenoxyacetic acid)	0.0794	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2,4-D(2,4-Dichloro- phenoxyacetic acid)	0.0706	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2,4-D(2,4-Dichloro- phenoxyacetic acid)	0.0786	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2,4-D(2,4-Dichloro- phenoxyacetic acid)	0.0786	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2,4-D(2,4-Dichloro- phenoxyacetic acid)	0.0786	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0.0879	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0.0782	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0.0871	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0.0871	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0.0871	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2,4-Dimethylphenol	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2,4-Dimethylphenol	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2,4-Dimethylphenol	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2,4-Dimethylphenol	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2,4-Dimethylphenol	2.86	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2,4-Dinitrophenol	4.46	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2,4-Dinitrophenol	4.72	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2,4-Dinitrophenol	4.76	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2,4-Dinitrophenol	4.72	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2,4-Dinitrophenol	4.76	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2,4-Dinitrotoluene	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2,4-Dinitrotoluene	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2,4-Dinitrotoluene	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2,4-Dinitrotoluene	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2,4-Dinitrotoluene	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2,6-Dinitrotoluene	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2,6-Dinitrotoluene	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2,6-Dinitrotoluene	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2,6-Dinitrotoluene	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2,6-Dinitrotoluene	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2-Butanone	3	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2-Butanone	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2-Butanone	3	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2-Butanone	3	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2-Butanone	3	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2-Chloronaphthalene	0.366	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2-Chloronaphthalene	0.387	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2-Chloronaphthalene	0.39	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2-Chloronaphthalene	0.387	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2-Chloronaphthalene	0.39	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2-Chlorophenol	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2-Chlorophenol	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2-Chlorophenol	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2-Chlorophenol	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2-Chlorophenol	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2-Hexanone	3	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2-Hexanone	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2-Hexanone	3	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2-Hexanone	3	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2-Hexanone	3	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2-Methyl-4 chlorophenoxyacetic acid	15.9	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2-Methyl-4 chlorophenoxyacetic acid	14.1	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2-Methyl-4 chlorophenoxyacetic acid	15.7	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2-Methyl-4 chlorophenoxyacetic acid	15.7	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2-Methyl-4 chlorophenoxyacetic acid	15.7	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2-Methylnaphthalene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2-Methylnaphthalene	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2-Methylnaphthalene	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2-Methylnaphthalene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2-Methylnaphthalene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	2-Nitroaniline	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	2-Nitroaniline	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	2-Nitroaniline	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	2-Nitroaniline	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	2-Nitroaniline	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	3,3'-Dichlorobenzidine	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	3,3'-Dichlorobenzidine	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	3,3'-Dichlorobenzidine	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	3,3'-Dichlorobenzidine	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	3,3'-Dichlorobenzidine	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	3-Nitroaniline	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	3-Nitroaniline	2.83	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	3-Nitroaniline	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	3-Nitroaniline	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	3-Nitroaniline	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00943	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00943	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00943	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00952	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00962	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00943	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00943	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00943	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00952	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00962	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00943	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00943	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00943	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00952	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00962	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	4,6-Dinitro-2-methylphenol	2.68	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	4,6-Dinitro-2-methylphenol	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	4,6-Dinitro-2-methylphenol	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	4,6-Dinitro-2-methylphenol	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	4,6-Dinitro-2-methylphenol	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	4-Bromophenylphenyl ether	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	4-Bromophenylphenyl ether	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	4-Bromophenylphenyl ether	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	4-Bromophenylphenyl ether	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	4-Bromophenylphenyl ether	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	4-Chloro-3-methylphenol	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	4-Chloro-3-methylphenol	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	4-Chloro-3-methylphenol	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	4-Chloro-3-methylphenol	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	4-Chloro-3-methylphenol	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	4-Chloroaniline	2.95	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	4-Chloroaniline	3.11	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	4-Chloroaniline	3.14	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	4-Chloroaniline	3.11	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	4-Chloroaniline	3.14	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	4-Chlorophenylphenyl ether	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	4-Chlorophenylphenyl ether	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	4-Chlorophenylphenyl ether	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	4-Chlorophenylphenyl ether	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	4-Chlorophenylphenyl ether	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	4-Methyl-2-pentanone	3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	4-Methyl-2-pentanone	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	4-Methyl-2-pentanone	3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	4-Methyl-2-pentanone	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	4-Methyl-2-pentanone	3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	4-Nitroaniline	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	4-Nitroaniline	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	4-Nitroaniline	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	4-Nitroaniline	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	4-Nitroaniline	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	4-Nitrophenol	2.68	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	4-Nitrophenol	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	4-Nitrophenol	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	4-Nitrophenol	2.83	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	4-Nitrophenol	2.86	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Acenaphthene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Acenaphthene	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Acenaphthene	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Acenaphthene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Acenaphthene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Acenaphthylene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Acenaphthylene	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Acenaphthylene	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Acenaphthylene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Acenaphthylene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Acetone	3	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Acetone	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Acetone	3	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Acetone	3	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Acetone	3	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Aldrin	0.00627	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Aldrin	0.00627	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Aldrin	0.00627	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Aldrin	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Aldrin	0.00639	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Alkalinity	120,000	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Alpha-BHC	0.00627	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Alpha-BHC	0.00627	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Alpha-BHC	0.00627	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Alpha-BHC	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Alpha-BHC	0.00639	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Alpha-Chlordane	0.00627	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Alpha-Chlordane	0.00627	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Alpha-Chlordane	0.00627	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Alpha-Chlordane	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Alpha-Chlordane	0.00639	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Aluminum	89	µg/L	B
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Aluminum	94	µg/L	B
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Aluminum	68	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Aluminum	68	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Aluminum	68	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Americium-241	-0.111	pCi/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Americium-241	0.389	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Americium-241	0.249	pCi/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Americium-241	0.00242	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Americium-241	-0.253	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Anthracene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Anthracene	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Anthracene	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Anthracene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Anthracene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Antimony	3.5	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Antimony	3.5	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Antimony	3.68	µg/L	B
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Antimony	3.5	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Antimony	4.01	µg/L	B
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Aroclor 1016	0.0317	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Aroclor 1016	0.0314	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Aroclor 1016	0.0317	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Aroclor 1016	0.0317	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Aroclor 1016	0.0314	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Aroclor 1221	0.0317	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Aroclor 1221	0.0314	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Aroclor 1221	0.0317	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Aroclor 1221	0.0317	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Aroclor 1221	0.0314	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Aroclor 1232	0.0317	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Aroclor 1232	0.0314	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Aroclor 1232	0.0317	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Aroclor 1232	0.0317	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Aroclor 1232	0.0314	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Aroclor 1242	0.0317	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Aroclor 1242	0.0314	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Aroclor 1242	0.0317	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Aroclor 1242	0.0317	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Aroclor 1242	0.0314	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Aroclor 1248	0.0317	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Aroclor 1248	0.0314	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Aroclor 1248	0.0317	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Aroclor 1248	0.0317	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Aroclor 1248	0.0314	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Aroclor 1254	0.0317	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Aroclor 1254	0.0314	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Aroclor 1254	0.0317	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Aroclor 1254	0.0317	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Aroclor 1254	0.0314	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Aroclor 1260	0.0317	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Aroclor 1260	0.0314	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Aroclor 1260	0.0317	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Aroclor 1260	0.0317	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Aroclor 1260	0.0314	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Arsenic	5	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Arsenic	5	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Arsenic	5	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Arsenic	5	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Arsenic	5	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Barium	71.7	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Barium	62.2	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Barium	25.3	µg/L	--

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Barium	62	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Barium	25.1	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Benzene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Benzene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Benzene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Benzene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Benzene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Benzo(a)anthracene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Benzo(a)anthracene	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Benzo(a)anthracene	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Benzo(a)anthracene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Benzo(a)anthracene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Benzo(a)pyrene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Benzo(a)pyrene	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Benzo(a)pyrene	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Benzo(a)pyrene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Benzo(a)pyrene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Benzo(b)fluoranthene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Benzo(b)fluoranthene	0.283	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Benzo(b)fluoranthene	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Benzo(b)fluoranthene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Benzo(b)fluoranthene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Benzo(ghi)perylene	0.268	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Benzo(ghi)perylene	0.283	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Benzo(ghi)perylene	0.286	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Benzo(ghi)perylene	0.283	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Benzo(ghi)perylene	0.286	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Benzo(k)fluoranthene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Benzo(k)fluoranthene	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Benzo(k)fluoranthene	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Benzo(k)fluoranthene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Benzo(k)fluoranthene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Beryllium	1	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Beryllium	1	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Beryllium	1	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Beryllium	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Beryllium	1	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	beta-1,2,3,4,5,6-Hexachlorocyclo-hexane (beta-BHC)	0.00627	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	beta-1,2,3,4,5,6-Hexachlorocyclo-hexane (beta-BHC)	0.00627	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	beta-1,2,3,4,5,6-Hexachlorocyclo-hexane (beta-BHC)	0.00627	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	beta-1,2,3,4,5,6-Hexachlorocyclo-hexane (beta-BHC)	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	beta-1,2,3,4,5,6-Hexachlorocyclo-hexane (beta-BHC)	0.00639	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Bicarbonate	195,000	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Bicarbonate	190,000	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Bicarbonate	120,000	µg/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Bicarbonate	103,000	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Bicarbonate	157,000	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Bis(2-chloro-1-methylethyl)ether	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Bis(2-chloro-1-methylethyl)ether	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Bis(2-chloro-1-methylethyl)ether	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Bis(2-chloro-1-methylethyl)ether	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Bis(2-chloro-1-methylethyl)ether	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Bis(2-Chloroethoxy)methane	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Bis(2-Chloroethoxy)methane	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Bis(2-Chloroethoxy)methane	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Bis(2-Chloroethoxy)methane	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Bis(2-Chloroethoxy)methane	2.86	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Bis(2-chloroethyl) ether	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Bis(2-chloroethyl) ether	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Bis(2-chloroethyl) ether	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Bis(2-chloroethyl) ether	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Bis(2-chloroethyl) ether	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Boron	55.1	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Boron	57.5	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Boron	54.3	µg/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Boron	39.3	µg/L	B
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Boron	55.1	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Bromodichloromethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Bromodichloromethane	0.3	µg/L	J
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Bromodichloromethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Bromodichloromethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Bromodichloromethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Bromoform	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Bromoform	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Bromoform	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Bromoform	0.3	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Bromoform	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Bromomethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Bromomethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Bromomethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Bromomethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Bromomethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Butylbenzylphthalate	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Butylbenzylphthalate	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Butylbenzylphthalate	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Butylbenzylphthalate	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Butylbenzylphthalate	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Cadmium	1	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Cadmium	1	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Cadmium	1	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Cadmium	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Cadmium	1	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Calcium	67,300	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Calcium	65,200	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Calcium	61,000	µg/L	--

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Calcium	67,200	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Calcium	64,500	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Carbazole	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Carbazole	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Carbazole	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Carbazole	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Carbazole	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Carbon disulfide	1.6	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Carbon disulfide	1.6	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Carbon disulfide	1.6	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Carbon disulfide	1.6	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Carbon disulfide	1.6	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Carbon tetrachloride	274	µg/L	D
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Carbon tetrachloride	297	µg/L	D
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Carbon tetrachloride	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Carbon tetrachloride	504	µg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Carbon tetrachloride	20.4	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Carbonate alkalinity	1,450	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Carbonate alkalinity	1,450	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Carbonate alkalinity	1,450	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Carbonate alkalinity	1,450	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Carbonate alkalinity	1,450	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Cesium-137	-1.67	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Cesium-137	-0.604	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Cesium-137	0.887	pCi/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Cesium-137	1.9	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Cesium-137	-2.11	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Chloride	36	mg/L	D
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Chloride	37	mg/L	D
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Chloride	54	mg/L	D
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Chloride	28	mg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Chloride	55	mg/L	D
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Chlorobenzene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Chlorobenzene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Chlorobenzene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Chlorobenzene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Chlorobenzene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Chloroethane	0.3	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Chloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Chloroethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Chloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Chloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Chloroform	9.1	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Chloroform	8.7	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Chloroform	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Chloroform	5.15	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Chloroform	2.58	µg/L	J
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Chloromethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Chloromethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Chloromethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Chloromethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Chloromethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Chromium	37.6	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Chromium	24.6	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Chromium	3.23	µg/L	B
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Chromium	32	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Chromium	3.03	µg/L	B

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Chrysene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Chrysene	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Chrysene	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Chrysene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Chrysene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	cis-1,3-Dichloropropene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	cis-1,3-Dichloropropene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	cis-1,3-Dichloropropene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	cis-1,3-Dichloropropene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	cis-1,3-Dichloropropene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Cobalt	15.7	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Cobalt	15.8	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Cobalt	7.76	µg/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Cobalt	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Cobalt	9.39	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Cobalt-60	0.00505	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Cobalt-60	0.309	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Cobalt-60	-2.32	pCi/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Cobalt-60	-2.23	pCi/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Cobalt-60	-1.57	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Copper	89.1	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Copper	62.9	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Copper	4.47	µg/L	B
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Copper	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Copper	3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Cyanide	2.02	µg/L	B
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Cyanide	1.67	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Cyanide	1.67	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Cyanide	1.67	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Cyanide	1.67	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Cyanide amenable to chlorination	1.67	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Cyanide amenable to chlorination	1.67	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Cyanide amenable to chlorination	1.67	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Cyanide amenable to chlorination	1.67	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Cyanide amenable to chlorination	1.67	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Dalapon	1.59	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Dalapon	1.41	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Dalapon	1.57	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Dalapon	1.57	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Dalapon	1.57	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Delta-BHC	0.00627	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Delta-BHC	0.00627	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Delta-BHC	0.00627	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Delta-BHC	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Delta-BHC	0.00639	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Dibenz[a,h]anthracene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Dibenz[a,h]anthracene	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Dibenz[a,h]anthracene	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Dibenz[a,h]anthracene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Dibenz[a,h]anthracene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Dibenzofuran	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Dibenzofuran	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Dibenzofuran	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Dibenzofuran	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Dibenzofuran	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Dibromochloromethane	0.35	µg/L	J
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Dibromochloromethane	0.35	µg/L	J

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Dibromochloromethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Dibromochloromethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Dibromochloromethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Dicamba	0.0794	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Dicamba	0.0706	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Dicamba	0.0786	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Dicamba	0.0786	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Dicamba	0.0786	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Dichloroprop	0.0794	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Dichloroprop	0.0706	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Dichloroprop	0.0786	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Dichloroprop	0.0786	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Dichloroprop	0.0786	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Dieldrin	0.00943	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Dieldrin	0.00943	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Dieldrin	0.00943	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Dieldrin	0.00952	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Dieldrin	0.00962	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Diethylphthalate	0.268	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Diethylphthalate	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Diethylphthalate	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Diethylphthalate	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Diethylphthalate	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Dimethyl phthalate	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Dimethyl phthalate	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Dimethyl phthalate	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Dimethyl phthalate	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Dimethyl phthalate	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Di-n-butylphthalate	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Di-n-butylphthalate	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Di-n-butylphthalate	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Di-n-butylphthalate	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Di-n-butylphthalate	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Di-n-octylphthalate	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Di-n-octylphthalate	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Di-n-octylphthalate	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Di-n-octylphthalate	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Di-n-octylphthalate	0.286	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.0794	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.0706	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.0786	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.0786	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.0786	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Dissolved oxygen	1.23	mg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Dissolved oxygen	2.48	mg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Dissolved oxygen	8.29	mg/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Dissolved oxygen	8.86	mg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Dissolved oxygen	8.29	mg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Endosulfan I	0.00627	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Endosulfan I	0.00627	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Endosulfan I	0.00627	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Endosulfan I	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Endosulfan I	0.00639	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Endosulfan II	0.00943	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Endosulfan II	0.00943	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Endosulfan II	0.00943	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Endosulfan II	0.00952	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Endosulfan II	0.00962	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Endosulfan sulfate	0.00943	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Endosulfan sulfate	0.00943	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Endosulfan sulfate	0.00943	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Endosulfan sulfate	0.00952	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Endosulfan sulfate	0.00962	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Endrin	0.00943	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Endrin	0.00943	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Endrin	0.00943	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Endrin	0.00952	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Endrin	0.00962	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Endrin aldehyde	0.00627	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Endrin aldehyde	0.00627	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Endrin aldehyde	0.00627	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Endrin aldehyde	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Endrin aldehyde	0.00639	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Endrin ketone	0.00943	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Endrin ketone	0.00943	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Endrin ketone	0.00943	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Endrin ketone	0.00952	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Endrin ketone	0.00962	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Ethylbenzene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Ethylbenzene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Ethylbenzene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Ethylbenzene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Ethylbenzene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Europium-152	-0.705	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Europium-152	6.46	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Europium-152	-10.3	pCi/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Europium-152	-5.2	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Europium-152	-0.0311	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Europium-154	-1.12	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Europium-154	-0.16	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Europium-154	10.6	pCi/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Europium-154	9.39	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Europium-154	-2.52	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Europium-155	6.81	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Europium-155	-3.38	pCi/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Europium-155	-10.4	pCi/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Europium-155	-2.8	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Europium-155	-1.6	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Fluoranthene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Fluoranthene	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Fluoranthene	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Fluoranthene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Fluoranthene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Fluorene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Fluorene	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Fluorene	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Fluorene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Fluorene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Free cyanide	3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Free cyanide	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Free cyanide	3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Free cyanide	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Free cyanide	3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Gamma-BHC (Lindane)	0.00627	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Gamma-BHC (Lindane)	0.00627	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Gamma-BHC (Lindane)	0.00627	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Gamma-BHC (Lindane)	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Gamma-BHC (Lindane)	0.00639	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Gross alpha	1.23	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Gross alpha	1.84	pCi/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Gross alpha	2.23	pCi/L	N
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Gross alpha	6.11	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Gross alpha	1.32	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Gross beta	75	pCi/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Gross beta	69.7	pCi/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Gross beta	65.5	pCi/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Gross beta	81	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Gross beta	67.4	pCi/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Heptachlor	0.00627	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Heptachlor	0.00627	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Heptachlor	0.00627	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Heptachlor	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Heptachlor	0.00639	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Heptachlor epoxide	0.00627	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Heptachlor epoxide	0.00627	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Heptachlor epoxide	0.00627	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Heptachlor epoxide	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Heptachlor epoxide	0.00639	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Hexachlorobenzene	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Hexachlorobenzene	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Hexachlorobenzene	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Hexachlorobenzene	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Hexachlorobenzene	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Hexachlorobutadiene	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Hexachlorobutadiene	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Hexachlorobutadiene	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Hexachlorobutadiene	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Hexachlorobutadiene	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Hexachlorocyclopentadiene	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Hexachlorocyclopentadiene	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Hexachlorocyclopentadiene	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Hexachlorocyclopentadiene	2.83	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Hexachlorocyclopentadiene	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Hexachloroethane	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Hexachloroethane	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Hexachloroethane	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Hexachloroethane	2.83	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Hexachloroethane	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Hexavalent chromium	0.0086	mg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Hexavalent chromium	0.012	mg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Hexavalent chromium	0.0022	mg/L	B
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Hexavalent chromium	0.029	mg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Hexavalent chromium	0.0026	mg/L	B
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Hydroxylion	1,450	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Hydroxylion	1,450	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Hydroxylion	1,450	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Hydroxylion	1,450	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Hydroxylion	1,450	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Indeno(1,2,3-cd)pyrene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Indeno(1,2,3-cd)pyrene	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Indeno(1,2,3-cd)pyrene	0.286	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Indeno(1,2,3-cd)pyrene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Indeno(1,2,3-cd)pyrene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Iodine-129	0.239	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Iodine-129	-1.66	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Iodine-129	0.462	pCi/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Iodine-129	0.282	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Iodine-129	0.422	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Iron	2,790	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Iron	2,280	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Iron	30	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Iron	30	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Iron	30	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Isophorone	3.13	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Isophorone	3.3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Isophorone	3.33	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Isophorone	3.3	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Isophorone	3.33	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Lead	3.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Lead	3.3	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Lead	3.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Lead	3.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Lead	3.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Magnesium	23,200	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Magnesium	22,400	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Magnesium	21,300	µg/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Magnesium	23,200	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Magnesium	22,100	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Manganese	34.3	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Manganese	34.7	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Manganese	47.1	µg/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Manganese	2	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Manganese	57.9	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Mercury	0.067	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Mercury	0.067	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Mercury	0.067	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Mercury	0.067	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Mercury	0.067	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Methoxychlor	0.0472	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Methoxychlor	0.0472	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Methoxychlor	0.0472	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Methoxychlor	0.0476	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Methoxychlor	0.0481	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Methylene chloride	1.6	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Methylene chloride	1.6	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Methylene chloride	1.6	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Methylene chloride	1.6	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Methylene chloride	1.6	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Molybdenum	22.9	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Molybdenum	24.5	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Molybdenum	21	µg/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Molybdenum	4.9	µg/L	B
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Molybdenum	22.9	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Nickel	6.21	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Nickel	5.62	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Nickel	2.13	µg/L	B
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Nickel	1.5	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Nickel	4.84	µg/L	B

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Nickel-63	-2.68	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Nickel-63	19.4	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Nickel-63	-0.724	pCi/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Nickel-63	-10	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Nickel-63	-1.11	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Nitrobenzene	2.68	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Nitrobenzene	2.83	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Nitrobenzene	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Nitrobenzene	2.83	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Nitrobenzene	2.86	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Nitrogen in nitrate	0.15	mg/L	D
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Nitrogen in nitrate	0.56	mg/L	D
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Nitrogen in nitrate	6.3	mg/L	D
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Nitrogen in nitrate	33	mg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Nitrogen in nitrate	6.2	mg/L	D
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	n-Nitrosodi-n-propylamine	2.68	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	n-Nitrosodi-n-propylamine	2.83	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	n-Nitrosodi-n-propylamine	2.86	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	n-Nitrosodi-n-propylamine	2.83	µg/L	TU

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	n-Nitrosodi-n-propylamine	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	pH Measurement	6.61	unitless	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	pH Measurement	6.64	unitless	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	pH Measurement	7.05	unitless	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	pH Measurement	6.92	unitless	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	pH Measurement	7.22	unitless	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Phenanthrene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Phenanthrene	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Phenanthrene	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Phenanthrene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Phenanthrene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Phosphorus	2,400	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Phosphorus	2,260	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Phosphorus	152	µg/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Phosphorus	60	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Phosphorus	121	µg/L	B
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Plutonium-238	0.0657	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Plutonium-238	-0.0917	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Plutonium-238	0.123	pCi/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Plutonium-238	0.659	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Plutonium-238	0.429	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Plutonium-239/240	0.15	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Plutonium-239/240	-0.0917	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Plutonium-239/240	0.0903	pCi/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Plutonium-239/240	-0.157	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Plutonium-239/240	0	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Potassium	5,760	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Potassium	5,540	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Potassium	5,460	µg/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Potassium	5,470	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Potassium	5,440	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Pyrene	0.268	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Pyrene	0.283	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Pyrene	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Pyrene	0.283	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Pyrene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Selenium	6	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Selenium	6	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Selenium	13.9	µg/L	B
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Selenium	10.3	µg/L	B
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Selenium	7.01	µg/L	B
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Silver	1	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Silver	1	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Silver	1	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Silver	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Silver	1	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Sodium	30,200	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Sodium	29,300	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Sodium	29,500	µg/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Sodium	25,100	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Sodium	29,700	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Specific conductance	656	µS/cm	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Specific conductance	647	µS/cm	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Specific conductance	663	µS/cm	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Specific conductance	690	µS/cm	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Specific conductance	668	µS/cm	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Strontium	295	µg/L	--

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Strontium	283	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Strontium	262	µg/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Strontium	291	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Strontium	270	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Styrene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Styrene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Styrene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Styrene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Styrene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Sulfate	71	mg/L	D
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Sulfate	74	mg/L	D
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Sulfate	110	mg/L	D
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Sulfate	71	mg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Sulfate	74	mg/L	D
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Technetium-99	132	pCi/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Technetium-99	115	pCi/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Technetium-99	103	pCi/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Technetium-99	181	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Technetium-99	123	pCi/L	--

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Temperature	20.9	°C	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Temperature	21.1	°C	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Temperature	22.2	°C	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Temperature	20.7	°C	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Temperature	21.4	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Tetrachloroethene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Tetrachloroethene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Tetrachloroethene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Tetrachloroethene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Tetrachloroethene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Toluene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Toluene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Toluene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Toluene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Toluene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Total beta radiostrontium	-0.135	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Total beta radiostrontium	-0.0396	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Total beta radiostrontium	-0.0487	pCi/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Total beta radiostrontium	0.721	pCi/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Total beta radiostrontium	-0.108	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Total dissolved solids	407,000	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Total dissolved solids	401,000	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Total dissolved solids	437,000	µg/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Total dissolved solids	477,000	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Total dissolved solids	431,000	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Total petroleum hydrocarbons – diesel range	86.1	µg/L	J
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Total petroleum hydrocarbons – diesel range	88.4	µg/L	J
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Total petroleum hydrocarbons – diesel range	70.8	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Total petroleum hydrocarbons – diesel range	71.4	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Total petroleum hydrocarbons – diesel range	72.1	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Total petroleum hydrocarbons – gasoline range	34.3	µg/L	J
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Total petroleum hydrocarbons – gasoline range	38.9	µg/L	J
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Total petroleum hydrocarbons – gasoline range	16.7	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Total petroleum hydrocarbons – gasoline range	55.9	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Total petroleum hydrocarbons – gasoline range	19.2	µg/L	J
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Total petroleum hydrocarbons – kerosene range	31.7	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Total petroleum hydrocarbons – kerosene range	31.4	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Total petroleum hydrocarbons – kerosene range	31.4	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Total petroleum hydrocarbons – kerosene range	31.7	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Total petroleum hydrocarbons – kerosene range	32	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Total petroleum hydrocarbons – motor oil (high boiling)	71.4	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Total petroleum hydrocarbons – motor oil (high boiling)	70.8	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Total petroleum hydrocarbons – motor oil (high boiling)	70.8	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Total petroleum hydrocarbons – motor oil (high boiling)	71.4	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Total petroleum hydrocarbons – motor oil (high boiling)	72.1	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Total suspended solids	59	mg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Total suspended solids	49	mg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Total suspended solids	0.648	mg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Total suspended solids	0.6	mg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Total suspended solids	0.613	mg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Toxaphene	0.142	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Toxaphene	0.142	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Toxaphene	0.142	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Toxaphene	0.143	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Toxaphene	0.144	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	trans-1,3-Dichloropropene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	trans-1,3-Dichloropropene	0.3	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	trans-1,3-Dichloropropene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	trans-1,3-Dichloropropene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	trans-1,3-Dichloropropene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	trans-Chlordane	0.00627	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	trans-Chlordane	0.00627	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	trans-Chlordane	0.00627	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	trans-Chlordane	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	trans-Chlordane	0.00639	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Trichloroethene	2.24	µg/L	J
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Trichloroethene	2.43	µg/L	J
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Trichloroethene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Trichloroethene	3.35	µg/L	J
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Trichloroethene	0.38	µg/L	J
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Tritium	4,470	pCi/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Tritium	4,290	pCi/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Tritium	4,330	pCi/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Tritium	4,190	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Tritium	3,730	pCi/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Turbidity	26.7	NTU	--

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Turbidity	21.8	NTU	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Turbidity	0.32	NTU	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Turbidity	1.02	NTU	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Turbidity	0.2	NTU	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Uranium	0.988	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Uranium	1.01	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Uranium	0.921	µg/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Uranium	1.05	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Uranium	0.84	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Uranium-233/234	1.24	pCi/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Uranium-233/234	0.938	pCi/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Uranium-233/234	0.614	pCi/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Uranium-233/234	0.881	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Uranium-233/234	0.888	pCi/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Uranium-235	0.398	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Uranium-235	0.101	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Uranium-235	-0.0223	pCi/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Uranium-235	0.202	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Uranium-235	0.302	pCi/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Uranium-238	1.11	pCi/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Uranium-238	0.128	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Uranium-238	0.717	pCi/L	--
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Uranium-238	0.424	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Uranium-238	0.644	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Vanadium	30.1	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Vanadium	27.1	µg/L	--
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Vanadium	4.12	µg/L	B
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Vanadium	25.4	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Vanadium	3.87	µg/L	B
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Vinyl chloride	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Vinyl chloride	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Vinyl chloride	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Vinyl chloride	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Vinyl chloride	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Xylenes (total)	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Xylenes (total)	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Xylenes (total)	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Xylenes (total)	0.3	µg/L	U

Table E-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 5, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Xylenes (total)	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	05-Jul-18	Zinc	29.4	µg/L	C
FBR-B EFFLUENT, VALVE V25-Y40B1	05-Jul-18	Zinc	26.6	µg/L	C
EFFLUENT TANK VALVE V07-Y80	05-Jul-18	Zinc	4.35	µg/L	B
INFLUENT TANK VALVE V12-Y30	05-Jul-18	Zinc	3.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	05-Jul-18	Zinc	62	µg/L	C

Laboratory qualifiers:

-- = The value presented represents the concentration, or activity, within the accuracy of the analytical method which is typically +/- 20%.

B = analyte was detected in both the associated quality control blank and in the sample

C = analyte has been confirmed by gas chromatography/mass spectrometry analysis

D = reported value is from dilution

J = result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value

N = Spike Sample recovery is outside control limits

T = spike and/or spike duplicate sample recovery is outside control limits

U = below detection limit.; value shown is detection limit

FBR = fluidized bed reactor

NTU = nephelometric turbidity unit

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Appendix F

Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

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Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	11-Jul-18	1,1,1-Trichloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	1,1,1-Trichloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	1,1,1-Trichloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	1,1,1-Trichloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	1,1,1-Trichloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	1,1,2,2-Tetrachloroethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	1,1,2-Trichloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	1,1,2-Trichloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	1,1,2-Trichloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	1,1,2-Trichloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	1,1,2-Trichloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	1,1-Dichloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	1,1-Dichloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	1,1-Dichloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	1,1-Dichloroethane	0.3	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	11-Jul-18	1,1-Dichloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	1,1-Dichloroethene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	1,1-Dichloroethene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	1,1-Dichloroethene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	1,1-Dichloroethene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	1,1-Dichloroethene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	1,2,4-Trichlorobenzene	2.91	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	1,2,4-Trichlorobenzene	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	1,2,4-Trichlorobenzene	3.03	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	1,2,4-Trichlorobenzene	2.94	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	1,2,4-Trichlorobenzene	2.86	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	1,2-Dichlorobenzene	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	1,2-Dichlorobenzene	3.03	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	1,2-Dichlorobenzene	2.91	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	1,2-Dichlorobenzene	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	1,2-Dichlorobenzene	2.94	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	1,2-Dichloroethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	1,2-Dichloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	1,2-Dichloroethane	0.3	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	1,2-Dichloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	1,2-Dichloroethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	1,2-Dichloroethene (total)	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	1,2-Dichloroethene (total)	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	1,2-Dichloroethene (total)	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	1,2-Dichloroethene (total)	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	1,2-Dichloroethene (total)	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	1,2-Dichloropropane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	1,2-Dichloropropane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	1,2-Dichloropropane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	1,2-Dichloropropane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	1,2-Dichloropropane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	1,3-Dichlorobenzene	2.91	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	1,3-Dichlorobenzene	3.03	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	1,3-Dichlorobenzene	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	1,3-Dichlorobenzene	2.94	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	1,3-Dichlorobenzene	2.86	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	1,4-Dichlorobenzene	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	1,4-Dichlorobenzene	2.94	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	1,4-Dichlorobenzene	3.03	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	1,4-Dichlorobenzene	2.91	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	1,4-Dichlorobenzene	2.86	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2-(2-methyl-4-chlorophenoxy) propionic acid	16.2	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2-(2-methyl-4-chlorophenoxy) propionic acid	16.7	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2-(2-methyl-4-chlorophenoxy) propionic acid	16	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2-(2-methyl-4-chlorophenoxy) propionic acid	16	µg/L	TU
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2-(2-methyl-4-chlorophenoxy) propionic acid	16.7	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.0801	µg/L	TU
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.0833	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.0833	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.0801	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0.0809	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0.0833	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0.0801	µg/L	TU
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0.0833	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0.0809	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0.0801	µg/L	TU
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2,4,5-Trichlorophenol	2.94	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2,4,5-Trichlorophenol	2.86	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2,4,5-Trichlorophenol	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2,4,5-Trichlorophenol	3.03	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2,4,5-Trichlorophenol	2.91	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0.0833	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0.0809	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0.0833	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0.0801	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0.0801	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2,4-DB(4-(2,4-Dichlorophenoxy)butanoic acid)	0.0896	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2,4-DB(4-(2,4-Dichlorophenoxy)butanoic acid)	0.0887	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2,4-DB(4-(2,4-Dichlorophenoxy)butanoic acid)	0.0887	µg/L	TU
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2,4-DB(4-(2,4-Dichlorophenoxy)butanoic acid)	0.0923	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2,4-DB(4-(2,4-Dichlorophenoxy)butanoic acid)	0.0923	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2,4-Dimethylphenol	2.91	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2,4-Dimethylphenol	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2,4-Dimethylphenol	3.03	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2,4-Dimethylphenol	2.94	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2,4-Dimethylphenol	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2,4-Dinitrophenol	5.05	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2,4-Dinitrophenol	4.76	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2,4-Dinitrophenol	4.9	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2,4-Dinitrophenol	4.85	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2,4-Dinitrophenol	4.76	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2,4-Dinitrotoluene	2.94	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2,4-Dinitrotoluene	2.91	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2,4-Dinitrotoluene	2.86	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2,4-Dinitrotoluene	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2,4-Dinitrotoluene	3.03	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2,6-Dinitrotoluene	2.91	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2,6-Dinitrotoluene	2.94	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2,6-Dinitrotoluene	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2,6-Dinitrotoluene	3.03	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2,6-Dinitrotoluene	2.86	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2-Butanone	3	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2-Butanone	3	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2-Butanone	3	µg/L	TU
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2-Butanone	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2-Butanone	3	µg/L	TU

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2-Chloronaphthalene	0.402	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2-Chloronaphthalene	0.39	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2-Chloronaphthalene	0.39	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2-Chloronaphthalene	0.398	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2-Chloronaphthalene	0.414	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2-Chlorophenol	2.86	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2-Chlorophenol	2.91	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2-Chlorophenol	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2-Chlorophenol	3.03	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2-Chlorophenol	2.94	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2-Hexanone	3	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2-Hexanone	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2-Hexanone	3	µg/L	TU
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2-Hexanone	3	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2-Hexanone	3	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2-Methyl-4 chlorophenoxyacetic acid	16	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2-Methyl-4 chlorophenoxyacetic acid	16	µg/L	TU
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2-Methyl-4 chlorophenoxyacetic acid	16.7	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2-Methyl-4 chlorophenoxyacetic acid	16.7	µg/L	TU

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2-Methyl-4 chlorophenoxyacetic acid	16.2	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2-Methylnaphthalene	0.291	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2-Methylnaphthalene	0.294	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2-Methylnaphthalene	0.286	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2-Methylnaphthalene	0.286	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2-Methylnaphthalene	0.303	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	2-Nitroaniline	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	2-Nitroaniline	2.94	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	2-Nitroaniline	3.03	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	2-Nitroaniline	2.91	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	2-Nitroaniline	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	3,3'-Dichlorobenzidine	2.94	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	3,3'-Dichlorobenzidine	2.91	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	3,3'-Dichlorobenzidine	2.86	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	3,3'-Dichlorobenzidine	3.03	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	3,3'-Dichlorobenzidine	2.86	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	3-Nitroaniline	2.91	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	3-Nitroaniline	3.03	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	3-Nitroaniline	2.94	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	3-Nitroaniline	2.86	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	3-Nitroaniline	2.86	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00971	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00952	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00962	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.00971	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0.0087	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00971	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00971	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00952	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.0087	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0.00962	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00952	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00962	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00971	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.00971	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0.0087	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	4,6-Dinitro-2-methylphenol	2.91	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	4,6-Dinitro-2-methylphenol	3.03	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	4,6-Dinitro-2-methylphenol	2.86	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	4,6-Dinitro-2-methylphenol	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	4,6-Dinitro-2-methylphenol	2.94	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	4-Bromophenylphenyl ether	2.94	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	4-Bromophenylphenyl ether	3.03	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	4-Bromophenylphenyl ether	2.86	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	4-Bromophenylphenyl ether	2.91	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	4-Bromophenylphenyl ether	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	4-Chloro-3-methylphenol	3.03	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	4-Chloro-3-methylphenol	2.94	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	4-Chloro-3-methylphenol	2.91	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	4-Chloro-3-methylphenol	2.86	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	4-Chloro-3-methylphenol	2.86	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	4-Chloroaniline	3.14	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	4-Chloroaniline	3.24	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	4-Chloroaniline	3.2	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	4-Chloroaniline	3.14	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	4-Chloroaniline	3.33	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	4-Chlorophenylphenyl ether	2.91	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	4-Chlorophenylphenyl ether	3.03	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	11-Jul-18	4-Chlorophenylphenyl ether	2.94	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	4-Chlorophenylphenyl ether	2.86	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	4-Chlorophenylphenyl ether	2.86	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	4-Methyl-2-pentanone	3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	4-Methyl-2-pentanone	3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	4-Methyl-2-pentanone	3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	4-Methyl-2-pentanone	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	4-Methyl-2-pentanone	3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	4-Nitroaniline	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	4-Nitroaniline	3.03	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	4-Nitroaniline	2.91	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	4-Nitroaniline	2.94	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	4-Nitroaniline	2.86	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	4-Nitrophenol	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	4-Nitrophenol	2.94	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	4-Nitrophenol	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	4-Nitrophenol	3.03	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	4-Nitrophenol	2.91	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Acenaphthene	0.291	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Acenaphthene	0.286	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Acenaphthene	0.303	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Acenaphthene	0.294	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Acenaphthene	0.286	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Acenaphthylene	0.286	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Acenaphthylene	0.291	µg/L	TU
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Acenaphthylene	0.294	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Acenaphthylene	0.286	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Acenaphthylene	0.303	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Acetone	3	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Acetone	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Acetone	3	µg/L	TU
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Acetone	3	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Acetone	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Aldrin	0.00633	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Aldrin	0.00646	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Aldrin	0.00646	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Aldrin	0.00578	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Aldrin	0.00639	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Alkalinity	194,000	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Alkalinity	183,000	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Alkalinity	120,000	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Alkalinity	157,000	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Alkalinity	102,000	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Alpha-BHC	0.00646	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Alpha-BHC	0.00633	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Alpha-BHC	0.00578	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Alpha-BHC	0.00639	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Alpha-BHC	0.00646	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Alpha-Chlordane	0.00578	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Alpha-Chlordane	0.00646	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Alpha-Chlordane	0.00639	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Alpha-Chlordane	0.00646	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Alpha-Chlordane	0.00633	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Aluminum	75	µg/L	B
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Aluminum	68	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Aluminum	68	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Aluminum	68	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Aluminum	68	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Americium-241	0.406	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Americium-241	-0.222	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Americium-241	0.168	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Americium-241	0.385	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Americium-241	0.0813	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Anthracene	0.291	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Anthracene	0.303	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Anthracene	0.286	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Anthracene	0.286	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Anthracene	0.294	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Antimony	3.5	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Antimony	3.5	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Antimony	3.5	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Antimony	3.5	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Antimony	3.5	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Aroclor 1016	0.032	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Aroclor 1016	0.0323	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Aroclor 1016	0.032	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Aroclor 1016	0.032	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Aroclor 1016	0.0323	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Aroclor 1221	0.0323	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Aroclor 1221	0.0323	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Aroclor 1221	0.032	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Aroclor 1221	0.032	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Aroclor 1221	0.032	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Aroclor 1232	0.032	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Aroclor 1232	0.032	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Aroclor 1232	0.032	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Aroclor 1232	0.0323	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Aroclor 1232	0.0323	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Aroclor 1242	0.032	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Aroclor 1242	0.0323	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Aroclor 1242	0.032	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Aroclor 1242	0.0323	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Aroclor 1242	0.032	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Aroclor 1248	0.0323	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Aroclor 1248	0.032	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Aroclor 1248	0.032	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Aroclor 1248	0.0323	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Aroclor 1248	0.032	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Aroclor 1254	0.032	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Aroclor 1254	0.0323	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Aroclor 1254	0.0323	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Aroclor 1254	0.032	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Aroclor 1254	0.032	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Aroclor 1260	0.032	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Aroclor 1260	0.0323	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Aroclor 1260	0.032	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Aroclor 1260	0.032	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Aroclor 1260	0.0323	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Arsenic	5	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Arsenic	5	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Arsenic	5	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Arsenic	5	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Arsenic	5	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Barium	57.3	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Barium	19.8	µg/L	--

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Barium	63.1	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Barium	20.7	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Barium	69.8	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Benzene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Benzene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Benzene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Benzene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Benzene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Benzo(a)anthracene	0.286	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Benzo(a)anthracene	0.303	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Benzo(a)anthracene	0.294	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Benzo(a)anthracene	0.286	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Benzo(a)anthracene	0.291	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Benzo(a)pyrene	0.294	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Benzo(a)pyrene	0.286	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Benzo(a)pyrene	0.291	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Benzo(a)pyrene	0.286	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Benzo(a)pyrene	0.303	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Benzo(b)fluoranthene	0.286	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Benzo(b)fluoranthene	0.294	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Benzo(b)fluoranthene	0.291	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Benzo(b)fluoranthene	0.303	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Benzo(b)fluoranthene	0.286	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Benzo(ghi)perylene	0.294	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Benzo(ghi)perylene	0.303	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Benzo(ghi)perylene	0.286	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Benzo(ghi)perylene	0.286	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Benzo(ghi)perylene	0.291	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Benzo(k)fluoranthene	0.291	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Benzo(k)fluoranthene	0.286	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Benzo(k)fluoranthene	0.286	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Benzo(k)fluoranthene	0.294	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Benzo(k)fluoranthene	0.303	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Beryllium	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Beryllium	1	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Beryllium	1	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Beryllium	1	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Beryllium	1	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00646	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00639	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00578	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00646	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0.00633	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Bicarbonate	102,000	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Bicarbonate	183,000	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Bicarbonate	194,000	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Bicarbonate	157,000	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Bicarbonate	120,000	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Bis(2-chloro-1-methylethyl)ether	2.86	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Bis(2-chloro-1-methylethyl)ether	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Bis(2-chloro-1-methylethyl)ether	2.94	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Bis(2-chloro-1-methylethyl)ether	2.91	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Bis(2-chloro-1-methylethyl)ether	3.03	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Bis(2-Chloroethoxy)methane	2.94	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Bis(2-Chloroethoxy)methane	3.03	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Bis(2-Chloroethoxy)methane	2.91	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Bis(2-Chloroethoxy)methane	2.86	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Bis(2-Chloroethoxy)methane	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Bis(2-chloroethyl) ether	3.03	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Bis(2-chloroethyl) ether	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Bis(2-chloroethyl) ether	2.94	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Bis(2-chloroethyl) ether	2.91	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Bis(2-chloroethyl) ether	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Boron	25.3	µg/L	B
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Boron	44.6	µg/L	B
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Boron	41	µg/L	B
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Boron	45.1	µg/L	B
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Boron	41.7	µg/L	B
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Bromodichloromethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Bromodichloromethane	0.4	µg/L	J
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Bromodichloromethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Bromodichloromethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Bromodichloromethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Bromoform	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Bromoform	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Bromoform	0.43	µg/L	J

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Bromoform	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Bromoform	0.44	µg/L	J
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Bromomethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Bromomethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Bromomethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Bromomethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Bromomethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Butylbenzylphthalate	0.294	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Butylbenzylphthalate	0.286	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Butylbenzylphthalate	0.286	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Butylbenzylphthalate	0.291	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Butylbenzylphthalate	0.303	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Cadmium	1	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Cadmium	1	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Cadmium	1	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Cadmium	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Cadmium	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Calcium	60,500	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Calcium	61,100	µg/L	--

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Calcium	60,500	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Calcium	61,800	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Calcium	57,800	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Carbazole	0.291	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Carbazole	0.286	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Carbazole	0.303	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Carbazole	0.286	µg/L	TU
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Carbazole	0.294	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Carbon disulfide	1.6	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Carbon disulfide	1.6	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Carbon disulfide	1.6	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Carbon disulfide	1.6	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Carbon disulfide	1.6	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Carbon tetrachloride	16.2	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Carbon tetrachloride	306	µg/L	D
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Carbon tetrachloride	505	µg/L	D
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Carbon tetrachloride	259	µg/L	D
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Carbon tetrachloride	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Carbonate alkalinity	1,450	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Carbonate alkalinity	1,450	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Carbonate alkalinity	1,450	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Carbonate alkalinity	1,450	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Carbonate alkalinity	1,450	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Cesium-137	-0.773	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Cesium-137	-1.83	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Cesium-137	-2.1	pCi/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Cesium-137	4.99	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Cesium-137	-5.1	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Chloride	63	mg/L	D
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Chloride	24	mg/L	D
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Chloride	31	mg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Chloride	61	mg/L	D
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Chloride	31	mg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Chlorobenzene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Chlorobenzene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Chlorobenzene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Chlorobenzene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Chlorobenzene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Chloroethane	0.3	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Chloroethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Chloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Chloroethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Chloroethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Chloroform	8.82	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Chloroform	5.89	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Chloroform	13.8	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Chloroform	8.47	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Chloroform	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Chloromethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Chloromethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Chloromethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Chloromethane	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Chloromethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Chromium	2.19	µg/L	B
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Chromium	27.8	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Chromium	21.9	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Chromium	2.32	µg/L	B
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Chromium	27.9	µg/L	--

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Chrysene	0.286	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Chrysene	0.303	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Chrysene	0.294	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Chrysene	0.286	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Chrysene	0.291	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	cis-1,3-Dichloropropene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	cis-1,3-Dichloropropene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	cis-1,3-Dichloropropene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	cis-1,3-Dichloropropene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	cis-1,3-Dichloropropene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Cobalt	14.5	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Cobalt	16.3	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Cobalt	6.11	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Cobalt	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Cobalt	7.9	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Cobalt-60	-3.53	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Cobalt-60	2.43	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Cobalt-60	-1.73	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Cobalt-60	-2.62	pCi/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Cobalt-60	3.01	pCi/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Copper	3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Copper	87.1	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Copper	57.7	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Copper	10.5	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Copper	9.78	µg/L	B
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Cyanide	1.67	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Cyanide	7.73	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Cyanide	1.67	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Cyanide	1.67	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Cyanide	7.3	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Cyanide amenable to chlorination	1.67	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Cyanide amenable to chlorination	7.73	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Cyanide amenable to chlorination	7.3	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Cyanide amenable to chlorination	1.67	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Cyanide amenable to chlorination	1.67	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Dalapon	1.67	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Dalapon	1.62	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Dalapon	1.6	µg/L	TU

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Dalapon	1.6	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Dalapon	1.67	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Delta-BHC	0.00639	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Delta-BHC	0.00578	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Delta-BHC	0.00646	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Delta-BHC	0.00633	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Delta-BHC	0.00646	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Dibenz[a,h]anthracene	0.303	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Dibenz[a,h]anthracene	0.294	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Dibenz[a,h]anthracene	0.291	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Dibenz[a,h]anthracene	0.286	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Dibenz[a,h]anthracene	0.286	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Dibenzofuran	3.03	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Dibenzofuran	2.86	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Dibenzofuran	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Dibenzofuran	2.94	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Dibenzofuran	2.91	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Dibromochloromethane	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Dibromochloromethane	0.3	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Dibromochloromethane	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Dibromochloromethane	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Dibromochloromethane	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Dicamba	0.0801	µg/L	TU
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Dicamba	0.0833	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Dicamba	0.0809	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Dicamba	0.0801	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Dicamba	0.0833	µg/L	TU
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Dichloroprop	0.0833	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Dichloroprop	0.0833	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Dichloroprop	0.0801	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Dichloroprop	0.0809	µg/L	TU
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Dichloroprop	0.0801	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Dieldrin	0.00962	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Dieldrin	0.00971	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Dieldrin	0.00971	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Dieldrin	0.0087	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Dieldrin	0.00952	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Diethylphthalate	0.291	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Diethylphthalate	0.303	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Diethylphthalate	0.286	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Diethylphthalate	0.286	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Diethylphthalate	0.294	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Dimethyl phthalate	0.286	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Dimethyl phthalate	0.303	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Dimethyl phthalate	0.291	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Dimethyl phthalate	0.286	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Dimethyl phthalate	0.294	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Di-n-butylphthalate	0.291	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Di-n-butylphthalate	0.294	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Di-n-butylphthalate	0.286	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Di-n-butylphthalate	0.286	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Di-n-butylphthalate	0.303	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Di-n-octylphthalate	0.303	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Di-n-octylphthalate	0.286	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Di-n-octylphthalate	0.291	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Di-n-octylphthalate	0.286	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Di-n-octylphthalate	0.294	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.0801	µg/L	TU

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.0833	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.0801	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.0809	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0.0833	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Dissolved oxygen	1.43	mg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Dissolved oxygen	1.54	mg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Dissolved oxygen	8.44	mg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Dissolved oxygen	8.86	mg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Dissolved oxygen	7.67	mg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Endosulfan I	0.00639	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Endosulfan I	0.00646	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Endosulfan I	0.00646	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Endosulfan I	0.00633	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Endosulfan I	0.00578	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Endosulfan II	0.00962	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Endosulfan II	0.0087	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Endosulfan II	0.00971	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Endosulfan II	0.00971	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Endosulfan II	0.00952	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Endosulfan sulfate	0.00971	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Endosulfan sulfate	0.00952	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Endosulfan sulfate	0.00971	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Endosulfan sulfate	0.00962	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Endosulfan sulfate	0.0087	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Endrin	0.0087	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Endrin	0.00962	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Endrin	0.00971	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Endrin	0.00971	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Endrin	0.00952	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Endrin aldehyde	0.00633	µg/L	TU
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Endrin aldehyde	0.00646	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Endrin aldehyde	0.00578	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Endrin aldehyde	0.00646	µg/L	TU
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Endrin aldehyde	0.00639	µg/L	TU
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Endrin ketone	0.0087	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Endrin ketone	0.00952	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Endrin ketone	0.00971	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Endrin ketone	0.00962	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Endrin ketone	0.00971	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Ethylbenzene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Ethylbenzene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Ethylbenzene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Ethylbenzene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Ethylbenzene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Europium-152	13.3	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Europium-152	2.16	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Europium-152	5.98	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Europium-152	0.679	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Europium-152	-3.09	pCi/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Europium-154	-1.98	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Europium-154	2.41	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Europium-154	10.5	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Europium-154	6.44	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Europium-154	-10.8	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Europium-155	-17.1	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Europium-155	-0.0316	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Europium-155	-4.78	pCi/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Europium-155	12.7	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Europium-155	-10.1	pCi/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Fluoranthene	0.294	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Fluoranthene	0.286	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Fluoranthene	0.303	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Fluoranthene	0.291	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Fluoranthene	0.286	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Fluorene	0.303	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Fluorene	0.294	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Fluorene	0.286	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Fluorene	0.286	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Fluorene	0.291	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Free cyanide	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Free cyanide	7.8	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Free cyanide	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Free cyanide	6.88	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Free cyanide	3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Gamma-BHC (Lindane)	0.00639	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Gamma-BHC (Lindane)	0.00578	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Gamma-BHC (Lindane)	0.00646	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Gamma-BHC (Lindane)	0.00633	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Gamma-BHC (Lindane)	0.00646	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Gross alpha	2.64	pCi/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Gross alpha	1.26	pCi/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Gross alpha	1.7	pCi/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Gross alpha	1.23	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Gross alpha	1.08	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Gross beta	58	pCi/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Gross beta	53.7	pCi/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Gross beta	62.9	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Gross beta	57.9	pCi/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Gross beta	68.9	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Heptachlor	0.00646	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Heptachlor	0.00633	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Heptachlor	0.00578	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Heptachlor	0.00646	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Heptachlor	0.00639	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Heptachlor epoxide	0.00646	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Heptachlor epoxide	0.00633	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Heptachlor epoxide	0.00578	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Heptachlor epoxide	0.00646	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Heptachlor epoxide	0.00639	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Hexachlorobenzene	2.86	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Hexachlorobenzene	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Hexachlorobenzene	2.94	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Hexachlorobenzene	3.03	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Hexachlorobenzene	2.91	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Hexachlorobutadiene	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Hexachlorobutadiene	3.03	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Hexachlorobutadiene	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Hexachlorobutadiene	2.94	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Hexachlorobutadiene	2.91	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Hexachlorocyclopentadiene	2.86	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Hexachlorocyclopentadiene	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Hexachlorocyclopentadiene	3.03	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Hexachlorocyclopentadiene	2.91	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Hexachlorocyclopentadiene	2.94	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Hexachloroethane	2.86	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Hexachloroethane	2.91	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Hexachloroethane	2.86	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Hexachloroethane	2.94	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Hexachloroethane	3.03	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Hexavalent chromium	0.027	mg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Hexavalent chromium	0.0019	mg/L	B
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Hexavalent chromium	0.0016	mg/L	B
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Hexavalent chromium	0.0032	mg/L	B
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Hexavalent chromium	0.0095	mg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Hydroxylion	1,450	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Hydroxylion	1,450	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Hydroxylion	1,450	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Hydroxylion	1,450	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Hydroxylion	1,450	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Indeno(1,2,3-cd)pyrene	0.294	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Indeno(1,2,3-cd)pyrene	0.286	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Indeno(1,2,3-cd)pyrene	0.286	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Indeno(1,2,3-cd)pyrene	0.303	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Indeno(1,2,3-cd)pyrene	0.291	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Iodine-129	0.926	pCi/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Iodine-129	0.303	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Iodine-129	0.501	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Iodine-129	-0.132	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Iodine-129	0.0485	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Iron	30	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Iron	4,040	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Iron	30	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Iron	30	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Iron	2,950	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Isophorone	3.4	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Isophorone	3.43	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Isophorone	3.33	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Isophorone	3.33	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Isophorone	3.54	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Lead	3.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Lead	3.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Lead	3.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Lead	3.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Lead	3.3	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Magnesium	21,000	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Magnesium	21,400	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Magnesium	20,200	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Magnesium	20,800	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Magnesium	21,200	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Manganese	31.4	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Manganese	40	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Manganese	29.3	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Manganese	2	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Manganese	35.2	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Mercury	0.067	µg/L	UN
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Mercury	0.067	µg/L	UN
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Mercury	0.067	µg/L	UN
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Mercury	0.067	µg/L	UN
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Mercury	0.067	µg/L	UN
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Methoxychlor	0.0435	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Methoxychlor	0.0476	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Methoxychlor	0.0485	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Methoxychlor	0.0481	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Methoxychlor	0.0485	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Methylene chloride	1.6	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Methylene chloride	1.6	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Methylene chloride	1.6	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Methylene chloride	1.6	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Methylene chloride	1.6	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Molybdenum	20.7	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Molybdenum	20.7	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Molybdenum	21.9	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Molybdenum	3.31	µg/L	B
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Molybdenum	21.4	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Nickel	5.15	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Nickel	5.9	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Nickel	3	µg/L	B
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Nickel	1.5	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Nickel	3.07	µg/L	B
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Nickel-63	3.45	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Nickel-63	-2.65	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Nickel-63	-6.71	pCi/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Nickel-63	10.4	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Nickel-63	-7.38	pCi/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Nitrobenzene	2.94	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Nitrobenzene	3.03	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Nitrobenzene	2.91	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Nitrobenzene	2.86	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Nitrobenzene	2.86	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Nitrogen in nitrate	0.23	mg/L	D
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Nitrogen in nitrate	5.8	mg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Nitrogen in nitrate	5.6	mg/L	D
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Nitrogen in nitrate	0.051	mg/L	BD
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Nitrogen in nitrate	30.6	mg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	n-Nitrosodi-n-propylamine	2.86	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	n-Nitrosodi-n-propylamine	3.03	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	n-Nitrosodi-n-propylamine	2.91	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	n-Nitrosodi-n-propylamine	2.94	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	n-Nitrosodi-n-propylamine	2.86	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	pH Measurement	6.79	unitless	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	pH Measurement	7.17	unitless	--

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	pH Measurement	7.56	unitless	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	pH Measurement	7.15	unitless	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	pH Measurement	6.83	unitless	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Phenanthrene	0.286	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Phenanthrene	0.294	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Phenanthrene	0.286	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Phenanthrene	0.303	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Phenanthrene	0.291	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Phosphorus	60	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Phosphorus	2,270	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Phosphorus	200	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Phosphorus	2,040	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Phosphorus	202	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Plutonium-238	0.158	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Plutonium-238	-0.0312	pCi/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Plutonium-238	0.427	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Plutonium-238	0.0294	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Plutonium-238	0.00743	pCi/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Plutonium-239/240	0.0921	pCi/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Plutonium-239/240	0.134	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Plutonium-239/240	0.0622	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Plutonium-239/240	0.0766	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Plutonium-239/240	0.0706	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Potassium	5,440	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Potassium	5,260	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Potassium	5,230	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Potassium	5,110	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Potassium	5,580	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Pyrene	0.286	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Pyrene	0.303	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Pyrene	0.291	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Pyrene	0.294	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Pyrene	0.286	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Selenium	6	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Selenium	6	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Selenium	6	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Selenium	6	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Selenium	6	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Silver	1	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Silver	1	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Silver	1	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Silver	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Silver	1	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Sodium	23,500	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Sodium	28,100	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Sodium	27,500	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Sodium	39,000	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Sodium	37,900	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Specific conductance	628	µS/cm	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Specific conductance	770	µS/cm	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Specific conductance	605	µS/cm	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Specific conductance	667	µS/cm	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Specific conductance	601	µS/cm	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Strontium	267	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Strontium	255	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Strontium	267	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Strontium	243	µg/L	--

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Strontium	271	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Styrene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Styrene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Styrene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Styrene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Styrene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Sulfate	69	mg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Sulfate	73	mg/L	D
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Sulfate	70	mg/L	D
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Sulfate	110	mg/L	D
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Sulfate	71	mg/L	D
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Technetium-99	159	pCi/L	O
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Technetium-99	113	pCi/L	O
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Technetium-99	108	pCi/L	O
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Technetium-99	111	pCi/L	O
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Technetium-99	85.2	pCi/L	O
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Temperature	21	°C	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Temperature	21.5	°C	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Temperature	23	°C	--

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Temperature	20.9	°C	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Temperature	21.2	°C	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Tetrachloroethene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Tetrachloroethene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Tetrachloroethene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Tetrachloroethene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Tetrachloroethene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Toluene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Toluene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Toluene	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Toluene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Toluene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Total beta radiostrontium	0.0326	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Total beta radiostrontium	0.0951	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Total beta radiostrontium	-0.00728	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Total beta radiostrontium	0.473	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Total beta radiostrontium	0.0593	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Total dissolved solids	386,000	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Total dissolved solids	437,000	µg/L	--

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Total dissolved solids	466,000	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Total dissolved solids	421,000	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Total dissolved solids	421,000	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Total petroleum hydrocarbons – diesel range	76.1	µg/L	JT
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Total petroleum hydrocarbons – diesel range	122	µg/L	JT
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Total petroleum hydrocarbons – diesel range	72.8	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Total petroleum hydrocarbons – diesel range	72.8	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Total petroleum hydrocarbons – diesel range	72.8	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Total petroleum hydrocarbons – gasoline range	36.9	µg/L	J
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Total petroleum hydrocarbons – gasoline range	16.7	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Total petroleum hydrocarbons – gasoline range	52.4	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Total petroleum hydrocarbons – gasoline range	39.2	µg/L	J
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Total petroleum hydrocarbons – gasoline range	17.4	µg/L	J
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Total petroleum hydrocarbons – kerosene range	32.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Total petroleum hydrocarbons – kerosene range	33.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Total petroleum hydrocarbons – kerosene range	32.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Total petroleum hydrocarbons – kerosene range	32.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Total petroleum hydrocarbons – kerosene range	33.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Total petroleum hydrocarbons – motor oil (high boiling)	99.8	µg/L	J
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Total petroleum hydrocarbons – motor oil (high boiling)	72.8	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Total petroleum hydrocarbons – motor oil (high boiling)	72.8	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Total petroleum hydrocarbons – motor oil (high boiling)	72.8	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Total petroleum hydrocarbons – motor oil (high boiling)	138	µg/L	J
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Total suspended solids	0.57	mg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Total suspended solids	0.57	mg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Total suspended solids	0.57	mg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Total suspended solids	50	mg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Total suspended solids	62	mg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Toxaphene	0.146	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Toxaphene	0.13	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Toxaphene	0.143	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Toxaphene	0.144	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Toxaphene	0.146	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	trans-1,3-Dichloropropene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	trans-1,3-Dichloropropene	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	trans-1,3-Dichloropropene	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	trans-1,3-Dichloropropene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	trans-1,3-Dichloropropene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	trans-Chlordane	0.00578	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	trans-Chlordane	0.00646	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	trans-Chlordane	0.00639	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	trans-Chlordane	0.00633	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	trans-Chlordane	0.00646	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Trichloroethene	3.47	µg/L	J
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Trichloroethene	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Trichloroethene	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Trichloroethene	2.29	µg/L	J
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Trichloroethene	1.89	µg/L	J
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Tritium	3,080	pCi/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Tritium	2,890	pCi/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Tritium	3,170	pCi/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Tritium	2,720	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Tritium	2,810	pCi/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Turbidity	30.8	NTU	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Turbidity	4.23	NTU	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Turbidity	21.6	NTU	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Turbidity	0.44	NTU	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Turbidity	1.48	NTU	--

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Uranium	0.944	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Uranium	0.88	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Uranium	0.926	µg/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Uranium	0.904	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Uranium	0.844	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Uranium-233/234	0.684	pCi/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Uranium-233/234	1.46	pCi/L	--
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Uranium-233/234	1.05	pCi/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Uranium-233/234	0.933	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Uranium-233/234	0.956	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Uranium-235	0.162	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Uranium-235	-0.04	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Uranium-235	-0.0269	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Uranium-235	0.139	pCi/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Uranium-235	0.216	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Uranium-238	0.293	pCi/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Uranium-238	0.54	pCi/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Uranium-238	0.141	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Uranium-238	0.711	pCi/L	--

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Uranium-238	0.157	pCi/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Vanadium	27.8	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Vanadium	5.29	µg/L	--
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Vanadium	29.6	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Vanadium	22.6	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Vanadium	5.44	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Vinyl chloride	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Vinyl chloride	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Vinyl chloride	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Vinyl chloride	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Vinyl chloride	0.3	µg/L	U
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Xylenes (total)	0.3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Xylenes (total)	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Xylenes (total)	0.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Xylenes (total)	0.3	µg/L	U
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Xylenes (total)	0.3	µg/L	U
FBR-A EFFLUENT, VALVE V25-Y40A1	11-Jul-18	Zinc	34	µg/L	--
EFFLUENT TANK VALVE V07-Y80	11-Jul-18	Zinc	23.4	µg/L	--
INFLUENT TANK VALVE V12-Y30	11-Jul-18	Zinc	3.3	µg/L	U

Table F-1. Sample Results at 200 West Pump and Treat During Treatment of Water from Modular Storage Unit, July 11, 2018

Sample Site	Date	Analyte	Value	Units	Laboratory Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	11-Jul-18	Zinc	3.3	µg/L	U
FBR-B EFFLUENT, VALVE V25-Y40B1	11-Jul-18	Zinc	35	µg/L	--

Laboratory qualifiers:

-- = The value presented represents the concentration, or activity, within the accuracy of the analytical method which is typically +/- 20%.

B = analyte was detected in both the associated quality control blank and in the sample

D = reported value is from dilution

J = result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value

N = Spike Sample recovery is outside control limits

O = Analyte failed to recovery within laboratory control sample limits

T = spike and/or spike duplicate sample recovery is outside control limits

U = below detection limit.; value shown is detection limit

FBR = fluidized bed reactor

NTU = nephelometric turbidity unit

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Appendix G

Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

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Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40A	06-Sep-18	1,1,1-Trichloroethane	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	1,1,1-Trichloroethane	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	1,1,1-Trichloroethane	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	1,1,1-Trichloroethane	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	1,1,1-Trichloroethane	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	1,1,1-Trichloroethane	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	1,1,2,2-Tetrachloroethane	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	1,1,2,2-Tetrachloroethane	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	1,1,2,2-Tetrachloroethane	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	1,1,2,2-Tetrachloroethane	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	1,1,2,2-Tetrachloroethane	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	1,1,2,2-Tetrachloroethane	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	1,1,2-Trichloroethane	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	1,1,2-Trichloroethane	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	1,1,2-Trichloroethane	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	1,1,2-Trichloroethane	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	1,1,2-Trichloroethane	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	1,1,2-Trichloroethane	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	1,1-Dichloroethane	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	1,1-Dichloroethane	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	1,1-Dichloroethane	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	1,1-Dichloroethane	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	1,1-Dichloroethane	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	1,1-Dichloroethane	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	1,1-Dichloroethene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	1,1-Dichloroethene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	1,1-Dichloroethene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	1,1-Dichloroethene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	1,1-Dichloroethene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	1,1-Dichloroethene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	1,2,4-Trichlorobenzene	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	1,2,4-Trichlorobenzene	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	1,2,4-Trichlorobenzene	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	1,2,4-Trichlorobenzene	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	1,2,4-Trichlorobenzene	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	1,2,4-Trichlorobenzene	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	1,2-Dichlorobenzene	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	1,2-Dichlorobenzene	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	1,2-Dichlorobenzene	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	1,2-Dichlorobenzene	3	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	1,2-Dichlorobenzene	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	1,2-Dichlorobenzene	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	1,2-Dichloroethane	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	1,2-Dichloroethane	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	1,2-Dichloroethane	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	1,2-Dichloroethane	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	1,2-Dichloroethane	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	1,2-Dichloroethane	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	1,2-Dichloroethene (total)	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	1,2-Dichloroethene (total)	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	1,2-Dichloroethene (total)	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	1,2-Dichloroethene (total)	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	1,2-Dichloroethene (total)	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	1,2-Dichloroethene (total)	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	1,2-Dichloropropane	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	1,2-Dichloropropane	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	1,2-Dichloropropane	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	1,2-Dichloropropane	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	1,2-Dichloropropane	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	1,2-Dichloropropane	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	1,3-Dichlorobenzene	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	1,3-Dichlorobenzene	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	1,3-Dichlorobenzene	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	1,3-Dichlorobenzene	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	1,3-Dichlorobenzene	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	1,3-Dichlorobenzene	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	1,4-Dichlorobenzene	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	1,4-Dichlorobenzene	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	1,4-Dichlorobenzene	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	1,4-Dichlorobenzene	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	1,4-Dichlorobenzene	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	1,4-Dichlorobenzene	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2-(2-methyl-4-chlorophenoxy) propionic acid	15	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	2-(2-methyl-4-chlorophenoxy) propionic acid	15	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2-(2-methyl-4-chlorophenoxy) propionic acid	309	µg/L	DU
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2-(2-methyl-4-chlorophenoxy) propionic acid	15	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2-(2-methyl-4-chlorophenoxy) propionic acid	15	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2-(2-methyl-4-chlorophenoxy) propionic acid	15	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40B	06-Sep-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	2	µg/L	DU
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2,4,5-T(2,4,5-Trichlorophenoxyacetic acid)	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	2	µg/L	DU
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2,4,5-TP(2-(2,4,5-Trichlorophenoxy)propionic acid)Silvex	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2,4,5-Trichlorophenol	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	2,4,5-Trichlorophenol	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2,4,5-Trichlorophenol	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2,4,5-Trichlorophenol	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2,4,5-Trichlorophenol	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2,4,5-Trichlorophenol	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	2	µg/L	DU

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2,4-D(2,4-Dichlorophenoxyacetic acid)	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	2	µg/L	DU
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2,4-DB(4-(2,4-Dichlorophenoxy) butanoic acid)	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2,4-Dimethylphenol	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	2,4-Dimethylphenol	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2,4-Dimethylphenol	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2,4-Dimethylphenol	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2,4-Dimethylphenol	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2,4-Dimethylphenol	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2,4-Dinitrophenol	4	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	2,4-Dinitrophenol	5	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2,4-Dinitrophenol	5	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2,4-Dinitrophenol	5	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2,4-Dinitrophenol	5	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2,4-Dinitrophenol	5	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2,4-Dinitrotoluene	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	2,4-Dinitrotoluene	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2,4-Dinitrotoluene	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2,4-Dinitrotoluene	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2,4-Dinitrotoluene	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2,4-Dinitrotoluene	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2,6-Dinitrotoluene	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	2,6-Dinitrotoluene	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2,6-Dinitrotoluene	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2,6-Dinitrotoluene	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2,6-Dinitrotoluene	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2,6-Dinitrotoluene	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2-Butanone	3	µg/L	TU
INFLUENT TO FBR V05-Y40B	06-Sep-18	2-Butanone	3	µg/L	TU
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2-Butanone	3	µg/L	TU
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2-Butanone	3	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2-Butanone	3	µg/L	TU

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2-Butanone	3	µg/L	TU
INFLUENT TO FBR V05-Y40A	06-Sep-18	2-Chloronaphthalene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	2-Chloronaphthalene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2-Chloronaphthalene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2-Chloronaphthalene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2-Chloronaphthalene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2-Chloronaphthalene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2-Chlorophenol	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	2-Chlorophenol	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2-Chlorophenol	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2-Chlorophenol	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2-Chlorophenol	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2-Chlorophenol	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2-Hexanone	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	2-Hexanone	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2-Hexanone	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2-Hexanone	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2-Hexanone	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2-Hexanone	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2-Methyl-4 chlorophenoxyacetic acid	15	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40B	06-Sep-18	2-Methyl-4 chlorophenoxyacetic acid	15	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2-Methyl-4 chlorophenoxyacetic acid	309	µg/L	DU
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2-Methyl-4 chlorophenoxyacetic acid	15	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2-Methyl-4 chlorophenoxyacetic acid	15	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2-Methyl-4 chlorophenoxyacetic acid	15	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2-Methylnaphthalene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	2-Methylnaphthalene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2-Methylnaphthalene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2-Methylnaphthalene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2-Methylnaphthalene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2-Methylnaphthalene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	2-Nitroaniline	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	2-Nitroaniline	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	2-Nitroaniline	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	2-Nitroaniline	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	2-Nitroaniline	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	2-Nitroaniline	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	3,3'-Dichlorobenzidine	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	3,3'-Dichlorobenzidine	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	3,3'-Dichlorobenzidine	3	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	3,3'-Dichlorobenzidine	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	3,3'-Dichlorobenzidine	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	3,3'-Dichlorobenzidine	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	3-Nitroaniline	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	3-Nitroaniline	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	3-Nitroaniline	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	3-Nitroaniline	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	3-Nitroaniline	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	3-Nitroaniline	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	4,4'-DDD (Dichlorodiphenyldichloroethane)	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	4,4'-DDE (Dichlorodiphenyldichloroethylene)	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	4,4'-DDT (Dichlorodiphenyltrichloroethane)	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	4,6-Dinitro-2-methylphenol	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	4,6-Dinitro-2-methylphenol	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	4,6-Dinitro-2-methylphenol	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	4,6-Dinitro-2-methylphenol	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	4,6-Dinitro-2-methylphenol	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	4,6-Dinitro-2-methylphenol	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	4-Bromophenylphenyl ether	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	4-Bromophenylphenyl ether	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	4-Bromophenylphenyl ether	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	4-Bromophenylphenyl ether	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	4-Bromophenylphenyl ether	3	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	4-Bromophenylphenyl ether	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	4-Chloro-3-methylphenol	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	4-Chloro-3-methylphenol	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	4-Chloro-3-methylphenol	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	4-Chloro-3-methylphenol	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	4-Chloro-3-methylphenol	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	4-Chloro-3-methylphenol	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	4-Chloroaniline	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	4-Chloroaniline	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	4-Chloroaniline	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	4-Chloroaniline	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	4-Chloroaniline	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	4-Chloroaniline	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	4-Chlorophenylphenyl ether	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	4-Chlorophenylphenyl ether	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	4-Chlorophenylphenyl ether	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	4-Chlorophenylphenyl ether	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	4-Chlorophenylphenyl ether	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	4-Chlorophenylphenyl ether	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	4-Methyl-2-pentanone	3	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40B	06-Sep-18	4-Methyl-2-pentanone	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	4-Methyl-2-pentanone	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	4-Methyl-2-pentanone	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	4-Methyl-2-pentanone	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	4-Methyl-2-pentanone	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	4-Nitroaniline	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	4-Nitroaniline	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	4-Nitroaniline	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	4-Nitroaniline	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	4-Nitroaniline	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	4-Nitroaniline	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	4-Nitrophenol	3	µg/L	TU
INFLUENT TO FBR V05-Y40B	06-Sep-18	4-Nitrophenol	3	µg/L	TU
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	4-Nitrophenol	3	µg/L	TU
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	4-Nitrophenol	3	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	4-Nitrophenol	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	4-Nitrophenol	3	µg/L	TU
INFLUENT TO FBR V05-Y40A	06-Sep-18	Acenaphthene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Acenaphthene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Acenaphthene	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Acenaphthene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Acenaphthene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Acenaphthene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Acenaphthylene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Acenaphthylene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Acenaphthylene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Acenaphthylene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Acenaphthylene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Acenaphthylene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Acetone	3	µg/L	TU
INFLUENT TO FBR V05-Y40B	06-Sep-18	Acetone	3	µg/L	TU
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Acetone	3	µg/L	TU
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Acetone	3	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Acetone	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Acetone	3	µg/L	TU
INFLUENT TO FBR V05-Y40A	06-Sep-18	Aldrin	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Aldrin	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Aldrin	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Aldrin	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Aldrin	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Aldrin	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Alkalinity	110,000	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Alkalinity	112,000	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Alkalinity	188,000	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Alkalinity	218,000	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Alkalinity	156,000	µg/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Alkalinity	112,000	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Alpha-BHC	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Alpha-BHC	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Alpha-BHC	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Alpha-BHC	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Alpha-BHC	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Alpha-BHC	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Alpha-Chlordane	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Alpha-Chlordane	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Alpha-Chlordane	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Alpha-Chlordane	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Alpha-Chlordane	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Alpha-Chlordane	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Aluminum	68	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Aluminum	68	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Aluminum	68	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Aluminum	68	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Aluminum	68	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Aluminum	68	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Americium-241	0	pCi/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Americium-241	0	pCi/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Americium-241	0	pCi/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Americium-241	0	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Americium-241	0	pCi/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Americium-241	0	pCi/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Anthracene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Anthracene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Anthracene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Anthracene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Anthracene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Anthracene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Antimony	4	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40B	06-Sep-18	Antimony	4	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Antimony	4	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Antimony	4	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Antimony	4	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Antimony	4	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Aroclor 1016	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Aroclor 1016	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Aroclor 1016	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Aroclor 1016	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Aroclor 1016	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Aroclor 1016	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Aroclor 1221	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Aroclor 1221	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Aroclor 1221	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Aroclor 1221	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Aroclor 1221	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Aroclor 1221	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Aroclor 1232	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Aroclor 1232	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Aroclor 1232	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Aroclor 1232	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Aroclor 1232	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Aroclor 1232	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Aroclor 1242	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Aroclor 1242	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Aroclor 1242	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Aroclor 1242	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Aroclor 1242	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Aroclor 1242	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Aroclor 1248	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Aroclor 1248	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Aroclor 1248	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Aroclor 1248	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Aroclor 1248	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Aroclor 1248	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Aroclor 1254	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Aroclor 1254	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Aroclor 1254	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Aroclor 1254	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Aroclor 1254	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Aroclor 1254	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Aroclor 1260	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Aroclor 1260	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Aroclor 1260	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Aroclor 1260	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Aroclor 1260	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Aroclor 1260	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Arsenic	6	µg/L	B
INFLUENT TO FBR V05-Y40B	06-Sep-18	Arsenic	5	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Arsenic	5	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Arsenic	5	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Arsenic	5	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Arsenic	5	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Barium	57	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Barium	57	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Barium	57	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Barium	55	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Barium	25	µg/L	--

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Barium	29	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Benzene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Benzene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Benzene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Benzene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Benzene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Benzene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Benzo(a)anthracene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Benzo(a)anthracene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Benzo(a)anthracene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Benzo(a)anthracene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Benzo(a)anthracene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Benzo(a)anthracene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Benzo(a)pyrene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Benzo(a)pyrene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Benzo(a)pyrene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Benzo(a)pyrene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Benzo(a)pyrene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Benzo(a)pyrene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Benzo(b)fluoranthene	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40B	06-Sep-18	Benzo(b)fluoranthene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Benzo(b)fluoranthene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Benzo(b)fluoranthene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Benzo(b)fluoranthene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Benzo(b)fluoranthene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Benzo(ghi)perylene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Benzo(ghi)perylene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Benzo(ghi)perylene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Benzo(ghi)perylene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Benzo(ghi)perylene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Benzo(ghi)perylene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Benzo(k)fluoranthene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Benzo(k)fluoranthene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Benzo(k)fluoranthene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Benzo(k)fluoranthene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Benzo(k)fluoranthene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Benzo(k)fluoranthene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Beryllium	1	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Beryllium	1	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Beryllium	1	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Beryllium	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Beryllium	1	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Beryllium	1	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Bicarbonate	110,000	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Bicarbonate	112,000	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Bicarbonate	188,000	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Bicarbonate	218,000	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Bicarbonate	156,000	µg/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Bicarbonate	112,000	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Bis(2-chloro-1-methylethyl)ether	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Bis(2-chloro-1-methylethyl)ether	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Bis(2-chloro-1-methylethyl)ether	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Bis(2-chloro-1-methylethyl)ether	3	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Bis(2-chloro-1-methylethyl)ether	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Bis(2-chloro-1-methylethyl)ether	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Bis(2-Chloroethoxy)methane	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Bis(2-Chloroethoxy)methane	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Bis(2-Chloroethoxy)methane	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Bis(2-Chloroethoxy)methane	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Bis(2-Chloroethoxy)methane	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Bis(2-Chloroethoxy)methane	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Bis(2-chloroethyl) ether	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Bis(2-chloroethyl) ether	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Bis(2-chloroethyl) ether	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Bis(2-chloroethyl) ether	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Bis(2-chloroethyl) ether	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Bis(2-chloroethyl) ether	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Boron	46	µg/L	B
INFLUENT TO FBR V05-Y40B	06-Sep-18	Boron	44	µg/L	B
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Boron	64	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Boron	66	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Boron	66	µg/L	--

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Boron	63	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Bromodichloromethane	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Bromodichloromethane	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Bromodichloromethane	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Bromodichloromethane	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Bromodichloromethane	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Bromodichloromethane	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Bromoform	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Bromoform	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Bromoform	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Bromoform	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Bromoform	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Bromoform	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Bromomethane	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Bromomethane	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Bromomethane	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Bromomethane	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Bromomethane	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Bromomethane	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Butylbenzylphthalate	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40B	06-Sep-18	Butylbenzylphthalate	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Butylbenzylphthalate	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Butylbenzylphthalate	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Butylbenzylphthalate	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Butylbenzylphthalate	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Cadmium	1	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Cadmium	1	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Cadmium	1	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Cadmium	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Cadmium	1	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Cadmium	1	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Calcium	59,100	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Calcium	59,800	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Calcium	58,700	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Calcium	59,800	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Calcium	60,000	µg/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Calcium	56,500	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Carbazole	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Carbazole	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Carbazole	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Carbazole	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Carbazole	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Carbazole	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Carbon disulfide	2	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Carbon disulfide	2	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Carbon disulfide	2	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Carbon disulfide	2	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Carbon disulfide	2	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Carbon disulfide	2	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Carbon tetrachloride	419	µg/L	D
INFLUENT TO FBR V05-Y40B	06-Sep-18	Carbon tetrachloride	366	µg/L	D
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Carbon tetrachloride	281	µg/L	D
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Carbon tetrachloride	341	µg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Carbon tetrachloride	27	µg/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Carbon tetrachloride	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Carbonate alkalinity	1,450	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Carbonate alkalinity	1,450	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Carbonate alkalinity	1,450	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Carbonate alkalinity	1,450	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Carbonate alkalinity	1,450	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Carbonate alkalinity	1,450	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Cesium-137	1	pCi/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Cesium-137	(1)	pCi/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Cesium-137	1	pCi/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Cesium-137	(0)	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Cesium-137	1	pCi/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Cesium-137	2	pCi/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Chloride	26,000	µg/L	D
INFLUENT TO FBR V05-Y40B	06-Sep-18	Chloride	26,000	µg/L	D
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Chloride	26,000	µg/L	D
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Chloride	26,000	µg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Chloride	45,000	µg/L	D
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Chloride	45,000	µg/L	D
INFLUENT TO FBR V05-Y40A	06-Sep-18	Chlorobenzene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Chlorobenzene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Chlorobenzene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Chlorobenzene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Chlorobenzene	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Chlorobenzene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Chloroethane	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Chloroethane	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Chloroethane	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Chloroethane	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Chloroethane	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Chloroethane	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Chloroform	5	µg/L	J
INFLUENT TO FBR V05-Y40B	06-Sep-18	Chloroform	5	µg/L	J
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Chloroform	9	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Chloroform	9	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Chloroform	3	µg/L	J
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Chloroform	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Chloromethane	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Chloromethane	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Chloromethane	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Chloromethane	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Chloromethane	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Chloromethane	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Chromium	26	µg/L	--

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40B	06-Sep-18	Chromium	27	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Chromium	20	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Chromium	17	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Chromium	3	µg/L	B
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Chromium	3	µg/L	B
INFLUENT TO FBR V05-Y40A	06-Sep-18	Chrysene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Chrysene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Chrysene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Chrysene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Chrysene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Chrysene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	cis-1,3-Dichloropropene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	cis-1,3-Dichloropropene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	cis-1,3-Dichloropropene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	cis-1,3-Dichloropropene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	cis-1,3-Dichloropropene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	cis-1,3-Dichloropropene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Cobalt	1	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Cobalt	1	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Cobalt	13	µg/L	--

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Cobalt	15	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Cobalt	8	µg/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Cobalt	7	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Cobalt-60	0	pCi/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Cobalt-60	2	pCi/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Cobalt-60	1	pCi/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Cobalt-60	4	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Cobalt-60	3	pCi/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Cobalt-60	1	pCi/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Copper	8	µg/L	B
INFLUENT TO FBR V05-Y40B	06-Sep-18	Copper	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Copper	79	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Copper	69	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Copper	5	µg/L	B
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Copper	5	µg/L	B
INFLUENT TO FBR V05-Y40A	06-Sep-18	Cyanide	2	µg/L	NU
INFLUENT TO FBR V05-Y40B	06-Sep-18	Cyanide	2	µg/L	NU
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Cyanide	2	µg/L	NU
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Cyanide	2	µg/L	NU

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Cyanide	2	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Cyanide	2	µg/L	NU
INFLUENT TO FBR V05-Y40A	06-Sep-18	Cyanide amenable to chlorination	2	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Cyanide amenable to chlorination	2	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Cyanide amenable to chlorination	2	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Cyanide amenable to chlorination	2	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Cyanide amenable to chlorination	2	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Cyanide amenable to chlorination	2	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Dalapon	2	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Dalapon	2	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Dalapon	31	µg/L	DU
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Dalapon	2	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Dalapon	2	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Dalapon	2	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Delta-BHC	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Delta-BHC	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Delta-BHC	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Delta-BHC	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Delta-BHC	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Delta-BHC	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Dibenz[a,h]anthracene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Dibenz[a,h]anthracene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Dibenz[a,h]anthracene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Dibenz[a,h]anthracene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Dibenz[a,h]anthracene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Dibenz[a,h]anthracene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Dibenzofuran	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Dibenzofuran	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Dibenzofuran	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Dibenzofuran	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Dibenzofuran	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Dibenzofuran	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Dibromochloromethane	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Dibromochloromethane	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Dibromochloromethane	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Dibromochloromethane	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Dibromochloromethane	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Dibromochloromethane	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Dicamba	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40B	06-Sep-18	Dicamba	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Dicamba	2	µg/L	DU
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Dicamba	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Dicamba	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Dicamba	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Dichloroprop	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Dichloroprop	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Dichloroprop	2	µg/L	DU
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Dichloroprop	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Dichloroprop	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Dichloroprop	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Dieldrin	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Dieldrin	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Dieldrin	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Dieldrin	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Dieldrin	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Dieldrin	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Diethylphthalate	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Diethylphthalate	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Diethylphthalate	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Diethylphthalate	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Diethylphthalate	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Diethylphthalate	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Dimethyl phthalate	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Dimethyl phthalate	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Dimethyl phthalate	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Dimethyl phthalate	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Dimethyl phthalate	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Dimethyl phthalate	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Di-n-butylphthalate	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Di-n-butylphthalate	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Di-n-butylphthalate	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Di-n-butylphthalate	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Di-n-butylphthalate	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Di-n-butylphthalate	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Di-n-octylphthalate	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Di-n-octylphthalate	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Di-n-octylphthalate	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Di-n-octylphthalate	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Di-n-octylphthalate	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Di-n-octylphthalate	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	2	µg/L	DU
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Dinoseb(2-secButyl-4,6-dinitrophenol)	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Dissolved oxygen	9,810	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Dissolved oxygen	9,900	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Dissolved oxygen	1,370	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Dissolved oxygen	2,130	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Dissolved oxygen	8,520	µg/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Dissolved oxygen	8,730	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Endosulfan I	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Endosulfan I	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Endosulfan I	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Endosulfan I	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Endosulfan I	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Endosulfan I	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Endosulfan II	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Endosulfan II	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Endosulfan II	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Endosulfan II	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Endosulfan II	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Endosulfan II	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Endosulfan sulfate	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Endosulfan sulfate	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Endosulfan sulfate	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Endosulfan sulfate	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Endosulfan sulfate	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Endosulfan sulfate	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Endrin	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Endrin	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Endrin	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Endrin	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Endrin	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Endrin	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Endrin aldehyde	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40B	06-Sep-18	Endrin aldehyde	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Endrin aldehyde	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Endrin aldehyde	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Endrin aldehyde	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Endrin aldehyde	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Endrin ketone	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Endrin ketone	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Endrin ketone	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Endrin ketone	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Endrin ketone	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Endrin ketone	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Ethylbenzene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Ethylbenzene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Ethylbenzene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Ethylbenzene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Ethylbenzene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Ethylbenzene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Europium-152	(6)	pCi/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Europium-152	15	pCi/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Europium-152	13	pCi/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Europium-152	(24)	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Europium-152	0	pCi/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Europium-152	12	pCi/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Europium-154	(8)	pCi/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Europium-154	5	pCi/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Europium-154	4	pCi/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Europium-154	44	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Europium-154	2	pCi/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Europium-154	(1)	pCi/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Europium-155	7	pCi/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Europium-155	42	pCi/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Europium-155	(1)	pCi/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Europium-155	9	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Europium-155	5	pCi/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Europium-155	1	pCi/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Fluoranthene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Fluoranthene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Fluoranthene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Fluoranthene	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Fluoranthene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Fluoranthene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Fluorene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Fluorene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Fluorene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Fluorene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Fluorene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Fluorene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Free cyanide	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Free cyanide	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Free cyanide	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Free cyanide	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Free cyanide	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Free cyanide	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Gamma-BHC (Lindane)	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Gamma-BHC (Lindane)	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Gamma-BHC (Lindane)	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Gamma-BHC (Lindane)	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Gamma-BHC (Lindane)	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Gamma-BHC (Lindane)	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Gross alpha	5	pCi/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Gross alpha	8	pCi/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Gross alpha	5	pCi/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Gross alpha	5	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Gross alpha	3	pCi/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Gross alpha	3	pCi/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Gross beta	110	pCi/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Gross beta	98	pCi/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Gross beta	72	pCi/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Gross beta	76	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Gross beta	91	pCi/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Gross beta	63	pCi/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Heptachlor	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Heptachlor	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Heptachlor	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Heptachlor	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Heptachlor	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Heptachlor	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Heptachlor epoxide	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40B	06-Sep-18	Heptachlor epoxide	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Heptachlor epoxide	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Heptachlor epoxide	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Heptachlor epoxide	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Heptachlor epoxide	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Hexachlorobenzene	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Hexachlorobenzene	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Hexachlorobenzene	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Hexachlorobenzene	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Hexachlorobenzene	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Hexachlorobenzene	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Hexachlorobutadiene	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Hexachlorobutadiene	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Hexachlorobutadiene	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Hexachlorobutadiene	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Hexachlorobutadiene	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Hexachlorobutadiene	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Hexachlorocyclopentadiene	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Hexachlorocyclopentadiene	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Hexachlorocyclopentadiene	3	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Hexachlorocyclopentadiene	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Hexachlorocyclopentadiene	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Hexachlorocyclopentadiene	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Hexachloroethane	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Hexachloroethane	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Hexachloroethane	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Hexachloroethane	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Hexachloroethane	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Hexachloroethane	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Hexavalent chromium	27	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Hexavalent chromium	27	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Hexavalent chromium	15	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Hexavalent chromium	2	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Hexavalent chromium	4	µg/L	B
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Hexavalent chromium	4	µg/L	B
INFLUENT TO FBR V05-Y40A	06-Sep-18	Hydroxylion	1,450	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Hydroxylion	1,450	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Hydroxylion	1,450	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Hydroxylion	1,450	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Hydroxylion	1,450	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Hydroxylion	1,450	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Indeno(1,2,3-cd)pyrene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Indeno(1,2,3-cd)pyrene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Indeno(1,2,3-cd)pyrene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Indeno(1,2,3-cd)pyrene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Indeno(1,2,3-cd)pyrene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Indeno(1,2,3-cd)pyrene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Iodine-129	0	pCi/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Iodine-129	1	pCi/L	X
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Iodine-129	0	pCi/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Iodine-129	1	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Iodine-129	0	pCi/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Iodine-129	0	pCi/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Iron	1,130	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Iron	263	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Iron	1,640	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Iron	1,220	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Iron	30	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Iron	30	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Isophorone	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Isophorone	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Isophorone	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Isophorone	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Isophorone	4	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Isophorone	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Lead	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Lead	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Lead	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Lead	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Lead	3	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Lead	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Magnesium	20,900	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Magnesium	20,700	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Magnesium	20,500	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Magnesium	20,900	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Magnesium	21,500	µg/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Magnesium	20,300	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Manganese	4	µg/L	B

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40B	06-Sep-18	Manganese	2	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Manganese	10	µg/L	B
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Manganese	10	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Manganese	29	µg/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Manganese	25	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Mercury	0	µg/L	UN
INFLUENT TO FBR V05-Y40B	06-Sep-18	Mercury	0	µg/L	UN
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Mercury	0	µg/L	UN
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Mercury	0	µg/L	UN
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Mercury	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Mercury	0	µg/L	UN
INFLUENT TO FBR V05-Y40A	06-Sep-18	Methoxychlor	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Methoxychlor	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Methoxychlor	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Methoxychlor	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Methoxychlor	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Methoxychlor	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Methylene chloride	2	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Methylene chloride	2	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Methylene chloride	2	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Methylene chloride	2	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Methylene chloride	2	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Methylene chloride	2	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Molybdenum	5	µg/L	B
INFLUENT TO FBR V05-Y40B	06-Sep-18	Molybdenum	3	µg/L	B
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Molybdenum	20	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Molybdenum	24	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Molybdenum	23	µg/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Molybdenum	21	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Nickel	2	µg/L	B
INFLUENT TO FBR V05-Y40B	06-Sep-18	Nickel	2	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Nickel	5	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Nickel	6	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Nickel	4	µg/L	B
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Nickel	4	µg/L	B
INFLUENT TO FBR V05-Y40A	06-Sep-18	Nickel-63	18	pCi/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Nickel-63	18	pCi/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Nickel-63	5	pCi/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Nickel-63	19	pCi/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Nickel-63	27	pCi/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Nickel-63	20	pCi/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Nitrobenzene	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Nitrobenzene	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Nitrobenzene	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Nitrobenzene	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Nitrobenzene	3	µg/L	TU
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Nitrobenzene	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Nitrogen in nitrate	32,054	µg/L	D
INFLUENT TO FBR V05-Y40B	06-Sep-18	Nitrogen in nitrate	32,957	µg/L	D
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Nitrogen in nitrate	2,506	µg/L	D
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Nitrogen in nitrate	1,898	µg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Nitrogen in nitrate	6,095	µg/L	D
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Nitrogen in nitrate	6,501	µg/L	D
INFLUENT TO FBR V05-Y40A	06-Sep-18	n-Nitrosodi-n-propylamine	3	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	n-Nitrosodi-n-propylamine	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	n-Nitrosodi-n-propylamine	3	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	n-Nitrosodi-n-propylamine	3	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	n-Nitrosodi-n-propylamine	3	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	n-Nitrosodi-n-propylamine	3	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	pH Measurement	6.75	unitless	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	pH Measurement	7.00	unitless	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	pH Measurement	6.41	unitless	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	pH Measurement	6 .39	unitless	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	pH Measurement	6.69	unitless	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	pH Measurement	6.61	unitless	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Phenanthrene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Phenanthrene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Phenanthrene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Phenanthrene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Phenanthrene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Phenanthrene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Phosphorus	180	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Phosphorus	60	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Phosphorus	1,430	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Phosphorus	1,490	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Phosphorus	68	µg/L	B
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Phosphorus	80	µg/L	B
INFLUENT TO FBR V05-Y40A	06-Sep-18	Plutonium-238	(0)	pCi/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40B	06-Sep-18	Plutonium-238	0	pCi/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Plutonium-238	(0)	pCi/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Plutonium-238	0	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Plutonium-238	(0)	pCi/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Plutonium-238	0	pCi/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Plutonium-239/240	(0)	pCi/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Plutonium-239/240	0	pCi/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Plutonium-239/240	(0)	pCi/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Plutonium-239/240	(0)	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Plutonium-239/240	(0)	pCi/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Plutonium-239/240	(0)	pCi/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Potassium	5,040	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Potassium	4,810	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Potassium	4,860	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Potassium	4,880	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Potassium	5,020	µg/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Potassium	4,700	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Pyrene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Pyrene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Pyrene	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Pyrene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Pyrene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Pyrene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Selenium	6	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Selenium	6	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Selenium	6	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Selenium	7	µg/L	B
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Selenium	6	µg/L	B
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Selenium	6	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Silver	1	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Silver	1	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Silver	1	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Silver	1	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Silver	1	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Silver	1	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Sodium	20,300	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Sodium	20,700	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Sodium	19,600	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Sodium	20,200	µg/L	--

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Sodium	20,700	µg/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Sodium	20,200	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Specific conductance	692	µS/cm	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Specific conductance	629	µS/cm	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Specific conductance	583	µS/cm	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Specific conductance	578	µS/cm	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Specific conductance	585	µS/cm	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Specific conductance	586	µS/cm	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Strontium	263	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Strontium	259	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Strontium	257	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Strontium	262	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Strontium	258	µg/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Strontium	243	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Styrene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Styrene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Styrene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Styrene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Styrene	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Styrene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Sulfate	61,000	µg/L	D
INFLUENT TO FBR V05-Y40B	06-Sep-18	Sulfate	61,000	µg/L	D
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Sulfate	62,000	µg/L	D
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Sulfate	63,000	µg/L	D
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Sulfate	63,000	µg/L	D
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Sulfate	120,000	µg/L	D
INFLUENT TO FBR V05-Y40A	06-Sep-18	Technetium-99	126	pCi/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Technetium-99	374	pCi/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Technetium-99	90	pCi/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Technetium-99	135	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Technetium-99	103	pCi/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Technetium-99	89	pCi/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Temperature	19	°C	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Temperature	19	°C	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Temperature	19	°C	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Temperature	20	°C	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Temperature	20	°C	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Temperature	21	°C	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Tetrachloroethene	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40B	06-Sep-18	Tetrachloroethene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Tetrachloroethene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Tetrachloroethene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Tetrachloroethene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Tetrachloroethene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Toluene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Toluene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Toluene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Toluene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Toluene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Toluene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Total beta radiostrontium	2	pCi/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Total beta radiostrontium	(0)	pCi/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Total beta radiostrontium	1	pCi/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Total beta radiostrontium	1	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Total beta radiostrontium	1	pCi/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Total beta radiostrontium	1	pCi/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Total dissolved solids	399,000	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Total dissolved solids	404,000	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Total dissolved solids	360,000	µg/L	--

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Total dissolved solids	411,000	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Total dissolved solids	370,000	µg/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Total dissolved solids	401,000	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Total petroleum hydrocarbons – diesel range	82	µg/L	JT
INFLUENT TO FBR V05-Y40B	06-Sep-18	Total petroleum hydrocarbons – diesel range	73	µg/L	TU
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Total petroleum hydrocarbons – diesel range	73	µg/L	TU
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Total petroleum hydrocarbons – diesel range	75	µg/L	TU
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Total petroleum hydrocarbons – diesel range	71	µg/L	TU
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Total petroleum hydrocarbons – diesel range	71	µg/L	TU
INFLUENT TO FBR V05-Y40A	06-Sep-18	Total petroleum hydrocarbons – gasoline range	44	µg/L	J
INFLUENT TO FBR V05-Y40B	06-Sep-18	Total petroleum hydrocarbons – gasoline range	44	µg/L	J
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Total petroleum hydrocarbons – gasoline range	33	µg/L	J
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Total petroleum hydrocarbons – gasoline range	35	µg/L	J
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Total petroleum hydrocarbons – gasoline range	17	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Total petroleum hydrocarbons – gasoline range	17	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Total petroleum hydrocarbons – kerosene range	31	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Total petroleum hydrocarbons – kerosene range	32	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Total petroleum hydrocarbons – kerosene range	32	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Total petroleum hydrocarbons – kerosene range	33	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Total petroleum hydrocarbons – kerosene range	32	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Total petroleum hydrocarbons – kerosene range	31	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Total petroleum hydrocarbons – motor oil (high boiling)	71	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Total petroleum hydrocarbons – motor oil (high boiling)	73	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Total petroleum hydrocarbons – motor oil (high boiling)	73	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Total petroleum hydrocarbons – motor oil (high boiling)	75	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Total petroleum hydrocarbons – motor oil (high boiling)	71	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Total petroleum hydrocarbons – motor oil (high boiling)	71	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Total suspended solids	12,700	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Total suspended solids	3,200	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Total suspended solids	58,600	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Total suspended solids	58,600	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Total suspended solids	781	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Total suspended solids	570	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Toxaphene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Toxaphene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Toxaphene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Toxaphene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Toxaphene	0	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Toxaphene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	trans-1,3-Dichloropropene	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	trans-1,3-Dichloropropene	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	trans-1,3-Dichloropropene	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	trans-1,3-Dichloropropene	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	trans-1,3-Dichloropropene	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	trans-1,3-Dichloropropene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	trans-Chlordane	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	trans-Chlordane	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	trans-Chlordane	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	trans-Chlordane	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	trans-Chlordane	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	trans-Chlordane	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Trichloroethene	3	µg/L	J
INFLUENT TO FBR V05-Y40B	06-Sep-18	Trichloroethene	3	µg/L	J
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Trichloroethene	1	µg/L	J
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Trichloroethene	2	µg/L	J
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Trichloroethene	0	µg/L	J
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Trichloroethene	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Tritium	2,400	pCi/L	--

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
INFLUENT TO FBR V05-Y40B	06-Sep-18	Tritium	2,780	pCi/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Tritium	2,370	pCi/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Tritium	2,380	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Tritium	2,570	pCi/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Tritium	2,780	pCi/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Turbidity	1	NTU	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Turbidity	3	NTU	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Turbidity	22	NTU	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Turbidity	27	NTU	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Turbidity	1	NTU	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Turbidity	1	NTU	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Uranium	1	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Uranium	1	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Uranium	1	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Uranium	1	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Uranium	1	µg/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Uranium	1	µg/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Uranium-233/234	1	pCi/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Uranium-233/234	1	pCi/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Uranium-233/234	1	pCi/L	--

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Uranium-233/234	1	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Uranium-233/234	1	pCi/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Uranium-233/234	1	pCi/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Uranium-235	0	pCi/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Uranium-235	0	pCi/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Uranium-235	0	pCi/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Uranium-235	0	pCi/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Uranium-235	1	pCi/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Uranium-235	0	pCi/L	--
INFLUENT TO FBR V05-Y40A	06-Sep-18	Uranium-238	1	pCi/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Uranium-238	0	pCi/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Uranium-238	0	pCi/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Uranium-238	1	pCi/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Uranium-238	1	pCi/L	--
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Uranium-238	0	pCi/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Vanadium	24	µg/L	--
INFLUENT TO FBR V05-Y40B	06-Sep-18	Vanadium	23	µg/L	--
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Vanadium	25	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Vanadium	24	µg/L	--

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Vanadium	3	µg/L	B
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Vanadium	3	µg/L	B
INFLUENT TO FBR V05-Y40A	06-Sep-18	Vinyl chloride	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Vinyl chloride	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Vinyl chloride	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Vinyl chloride	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Vinyl chloride	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Vinyl chloride	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Xylenes (total)	0	µg/L	U
INFLUENT TO FBR V05-Y40B	06-Sep-18	Xylenes (total)	0	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Xylenes (total)	0	µg/L	U
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Xylenes (total)	0	µg/L	U
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Xylenes (total)	0	µg/L	U
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Xylenes (total)	0	µg/L	U
INFLUENT TO FBR V05-Y40A	06-Sep-18	Zinc	4	µg/L	B
INFLUENT TO FBR V05-Y40B	06-Sep-18	Zinc	3	µg/L	U
FBR-A EFFLUENT VALVE V25-Y40A	06-Sep-18	Zinc	23	µg/L	--
FBR-B EFFLUENT VALVE V25-Y40B1	06-Sep-18	Zinc	28	µg/L	--
AERATED MEMBRANE TANK EFFLUENT VALVE V15-Y50	06-Sep-18	Zinc	3	µg/L	U

Table G-1. Sample Results at 200 West Pump and Treat Post-Treatment of Water from Modular Storage Unit, September 6, 2018

Sample Site	Date	Analyte	Value	Unit	Lab Qualifier
EFFLUENT TANK VALVE V07-Y80* A-E	06-Sep-18	Zinc	3	µg/L	U

*Sample was collected from one of five sample locations downstream of the five effluent pumps (depending on which pumps were operating).

Laboratory qualifiers:

-- = The value presented represents the concentration, or activity, within the accuracy of the analytical method which is typically +/- 20%

B = analyte was detected in both the associated quality control blank and in the sample

D = reported value is from dilution

J = result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value

N = spike sample recovery is outside control limits

T = spike and/or spike duplicate sample recovery is outside control limits

U = below detection limit.; value shown is detection limit

X = presence of chlorine, dosed to the MSU to oxidize iron and manganese and to remove algae and bacteria, interfered with these analyses; samples did not meet surrogate recover acceptance criteria; spike recoveries were outside the acceptance limits and the laboratory control sample spike recoveries were outside the acceptance limits

FBR = fluidized bed reactor

MSU = modular storage unit

NTU = nephelometric turbidity unit

Appendix H

Determination of Aerated Membrane Tank pH from Online Instrumentation, September 6, 2018

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H Determination of MBR pH from Online Instrumentation, September 6, 2018

The online instrumentation for the aerated membrane tanks are used sparingly. These instruments, which include a pH analyzer, are fed fresh water from the aerated membrane tank and the resulting signal is stored by the supervisory control and data acquisition system. After passing over the instrumentation, the water flows to a sump that, when full, is pumped to the recycle tank. The sump collects solids (e.g., carbon fines and debris) that clog the sump. Sometimes the sump backs up, resulting in water escaping the sump onto the floor. In response, water only flows through the instrumentation skid by request. Water was not flowing through the aerated membrane tank sample skid on September 6, 2018. Water was running through the sample skid on September 10, September 19, and September 21, 2018. Table H-1 summarizes the pH in each of the aerated membrane tanks and the average pH.

Table H-1. Values from Online pH Probes in Aerated Membrane Tank Instrumentation Skid Used to Determine pH Representative of Aerated Membrane Tanks

Aerated Membrane Tank	September 10, 2018	September 19, 2018	September 21, 2018
A	7.1	7.2	7.3
B	Offline	7.3	7.45
C	7.7	7.6	7.55
D	7.4	7.3	7.15
Average	7.4	7.35	7.36
		Overall Average	**7.34**

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