LMS/RFS/S15715

Rocky Flats Site, Colorado

Surface Water Configuration Adaptive Management Plan Annual Report

Calendar Year 2016

February 2017

U.S. DEPARTMENT OF ENERGY | Legacy Management

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Abbreviations

Am	americium
AMP	Adaptive Management Plan
AOC	area of concern
cfs	cubic feet per second
COU	Central Operable Unit
CY	calendar year
DOE	U.S. Department of Energy
FONSI	Finding of No Significant Impact
µg/L	micrograms per liter (sometimes expressed as ug/L)
N	nitrogen
NO2	nitrite
NO3	nitrate
pCi/L	picocuries per liter
POC	point of compliance
POE	point of evaluation
Pu	plutonium
RFLMA	*Rocky Flats Legacy Management Agreement*
SID	South Interceptor Ditch
Site	Rocky Flats Site
SPIN	SPPTS influent sampling location
SPOUT	SPPTS effluent sampling location
SPPTS	Solar Ponds Plume Treatment System
TSS	total suspended solids

1.0 Introduction

The proposed action assessed in the *Rocky Flats Site, Colorado, Surface Water Configuration Environmental Assessment* (DOE 2011) and the resulting Finding of No Significant Impact (FONSI) is to breach the remaining retention pond dams at the Rocky Flats Site, Colorado, (Site) to allow surface water flow to return to approximately the same conditions that were present before construction of the retention ponds. Based on extensive water quality monitoring data and a thorough environmental review, and as stated in the FONSI, the U.S. Department of Energy (DOE) Office of Legacy Management has determined that the proposed action does not present a significant impact on the environment under the National Environmental Policy Act evaluation criteria.

Some members of the public have commented that additional information must be collected before DOE implements the final steps of the proposed action. The additional information will help to reduce uncertainty as to whether completion of the proposed action will adversely impact the quality of water flowing from the Site and into downstream communities. In response to the requests, DOE worked with neighboring community representatives and other interested stakeholders to develop and implement an Adaptive Management Plan (AMP) (DOE 2015a) to provide additional information. The AMP group is composed of these representatives and stakeholders. The resulting AMP reflects DOE's long-term commitment to implementing the activities this plan describes.

The AMP provides for a monitoring and data evaluation program to assist in deciding whether to implement the final steps of the proposed action (which includes breaching the terminal dams during the planned time frame of 2018–2020), or to delay the completion of the proposed action to gather additional information for evaluation. The terminal dams will be operated in a flow-through condition during the period leading up to the completion of the proposed action, which will provide data similar to what can be expected post-breach. In addition to the AMP monitoring program, the AMP identifies certain performance indicators that DOE will consider in deciding whether to adjust the time frame for completing the proposed action.

This AMP annual report for calendar year (CY) 2016 is provided in accordance with the reporting requirements described in Section 5.0 of the AMP. Table 11, located at the end of this report, includes all validated analytical data available as of February 4, 2017, including any validated data that had not been tabulated in previous AMP reports.

In addition, to make data exchange as timely as possible, the monitoring summary sections below include all analytical data available as of February 4, 2017, including unvalidated analytical data (which are preliminary and subject to revision). Therefore, the evaluations in the monitoring summary sections that follow are not limited to the validated 2016 data tabulated in Table 11. Instead, the evaluations also consider any available unvalidated data, if appropriate.

The following monitoring objectives are addressed in this report:

- Pre-Discharge Monitoring
- Targeted Groundwater Monitoring
- Monitoring to Evaluate Flow-Through Operations at Terminal Ponds A-4, B-5, and C-2

- Storm-Event Monitoring
- Continuous Flow-Paced Composite Sampling to Evaluate Uranium Transport
- Grab Sampling for Uranium in North and South Walnut Creeks
- Grab Sampling for Nitrate + Nitrite as Nitrogen in Walnut Creek

2.0 AMP Highlights: Fourth Quarter CY 2016

- During the quarter, 48 samples were collected in support of AMP monitoring objectives.
- Two informal emails were transmitted to AMP participants that provided notification that composite samples had been retrieved from the points of compliance (POCs) (i.e., from WOMPOC on Woman Creek at the Central Operable Unit [COU or Central OU] boundary, and from WALPOC on Walnut Creek at the COU boundary).
- One informal email was transmitted to AMP participants providing notification of individual analytical results from POCs and Points of Evaluation that were above the applicable *Rocky Flats Legacy Management Agreement* (RFLMA) surface water standard (RFLMA Attachment 2, Table 1, revised in 2012).

3.0 Water Quality Monitoring

AMP monitoring objectives, locations, and sampling criteria are itemized in Table 2 of the AMP. Additional field implementation protocols for the AMP monitoring objectives can be found in Appendix I of the Rocky Flats Site Operations Guide (DOE 2013b).

3.1 Pre-Discharge Monitoring

This monitoring objective is intended to evaluate whether pond water from Ponds A-4, B-5, or C-2 would be expected to meet water-quality standards at downstream monitoring locations prior to opening a valve to initiate a period of flow-through discharge. Pre-discharge samples would be collected at A4 POND on North Walnut Creek, B5 POND on South Walnut Creek, and C2 POND on Woman Creek prior to opening a valve. These locations are shown in Figure 1.

Since Ponds A-4, B-5, and C-2 were operated in flow-through mode for all of CY 2016 (i.e., valves open all year), no pre-discharge samples were collected.

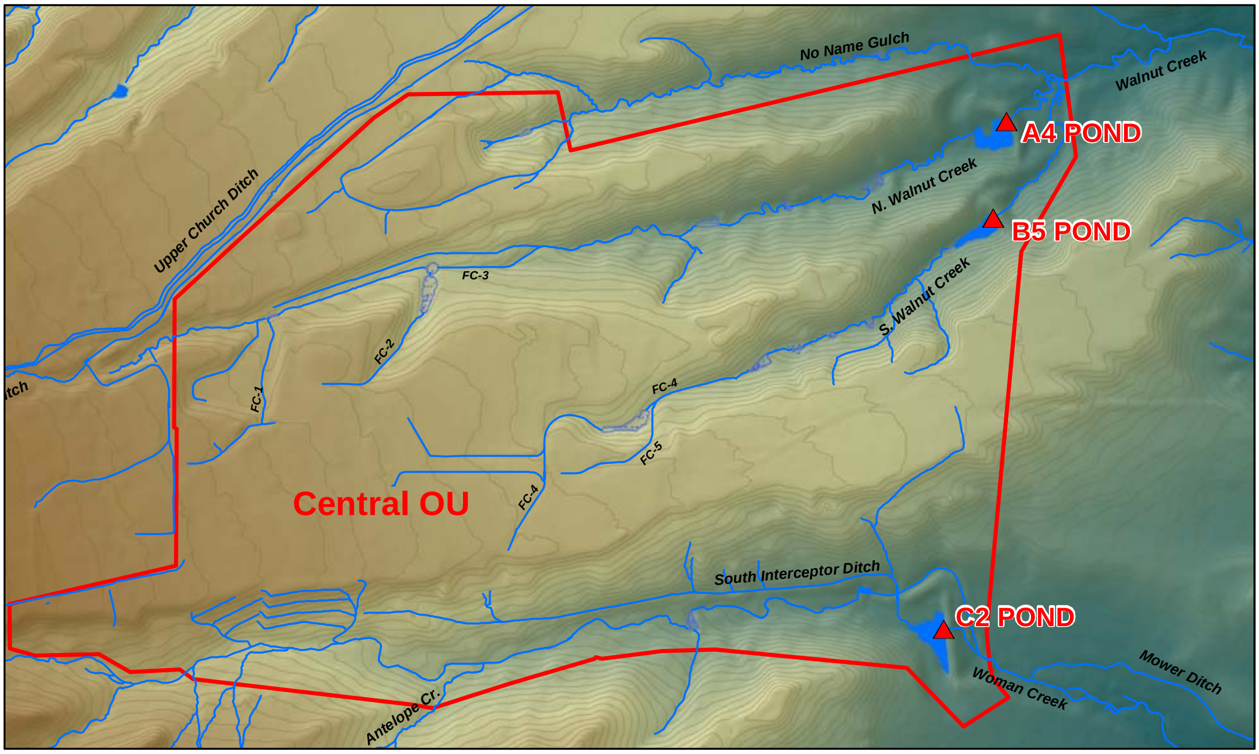


Figure 1. Pre-Discharge Monitoring Locations

3.2 Targeted Groundwater Monitoring

The AMP targeted groundwater monitoring wells (Figure 2) are the same as the RFLMA Area of Concern (AOC) wells and are located within a drainage and are downgradient of a contaminant plume or group of contaminant plumes. Water quality data are collected to determine whether plumes are discharging to surface water. These AOC wells are sampled semiannually in the second and fourth calendar quarters.

Data from these wells are evaluated in the RFLMA-required annual report (DOE 2017),[1] according to the Figure 7 flowchart in Attachment 2 to the RFLMA (DOE 2007). Analytical data undergo preliminary evaluation as data become available; this is necessary because of the strict timeline attached to “reportable conditions” for AOC wells. In accordance with and as defined in the RFLMA, if the data are confirmed to be valid and meet the requirements of a reportable condition, the reporting process under RFLMA is initiated. One reportable condition was triggered in 2015, for trichloroethene in groundwater at AOC well 10304. The RFLMA-required annual report for 2015 includes results of data evaluations and discussions of groundwater quality for the 2015 calendar year, and the annual report for 2016 presents results and discussion for 2016 as they relate to this reportable condition. AOC well 10304 remained reportable for trichloroethene through 2016.

[1] At the time of publication of this document, it was anticipated that the *Annual Report of Site Surveillance and Maintenance Activities at the Rocky Flats, Colorado, Site, Calendar Year 2016* would be published in April 2017.

These wells were sampled for their routine RFLMA analytes between April 12 and June 7, 2016 (to meet the second-quarter CY 2016 requirements), and between October 11 and October 19, 2016 (to meet the fourth-quarter CY 2016 requirements).

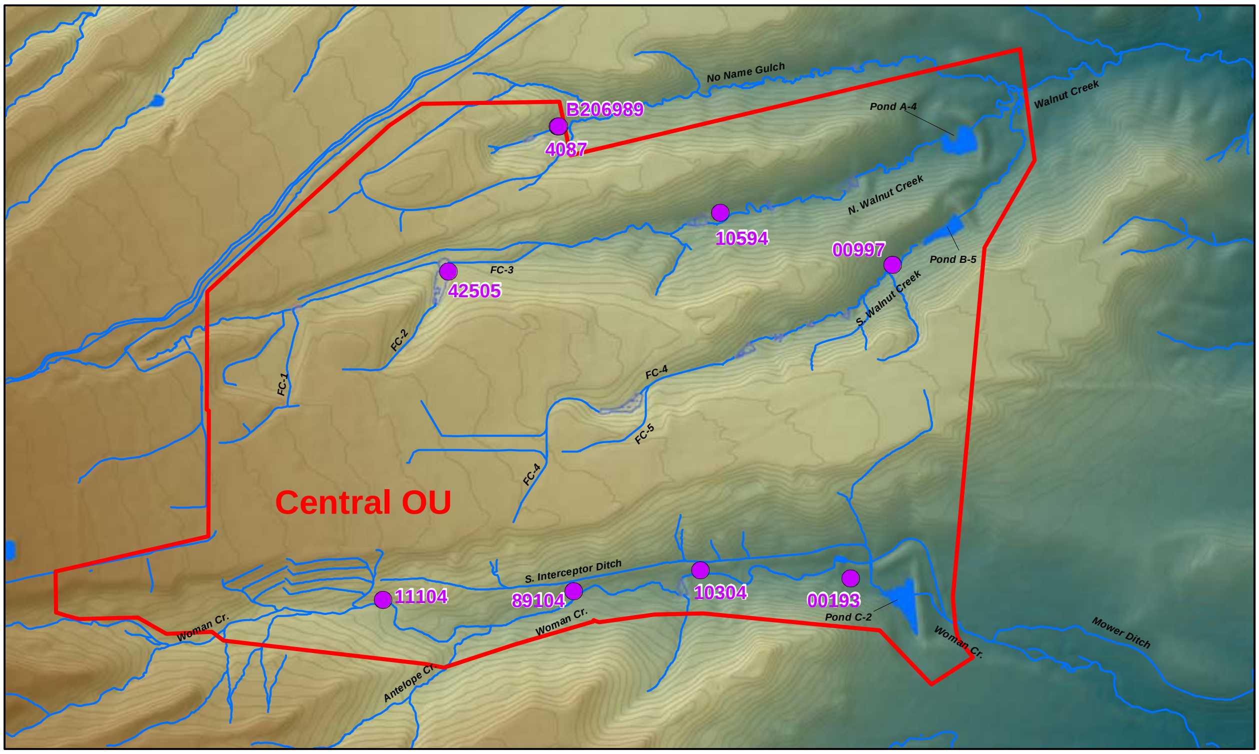
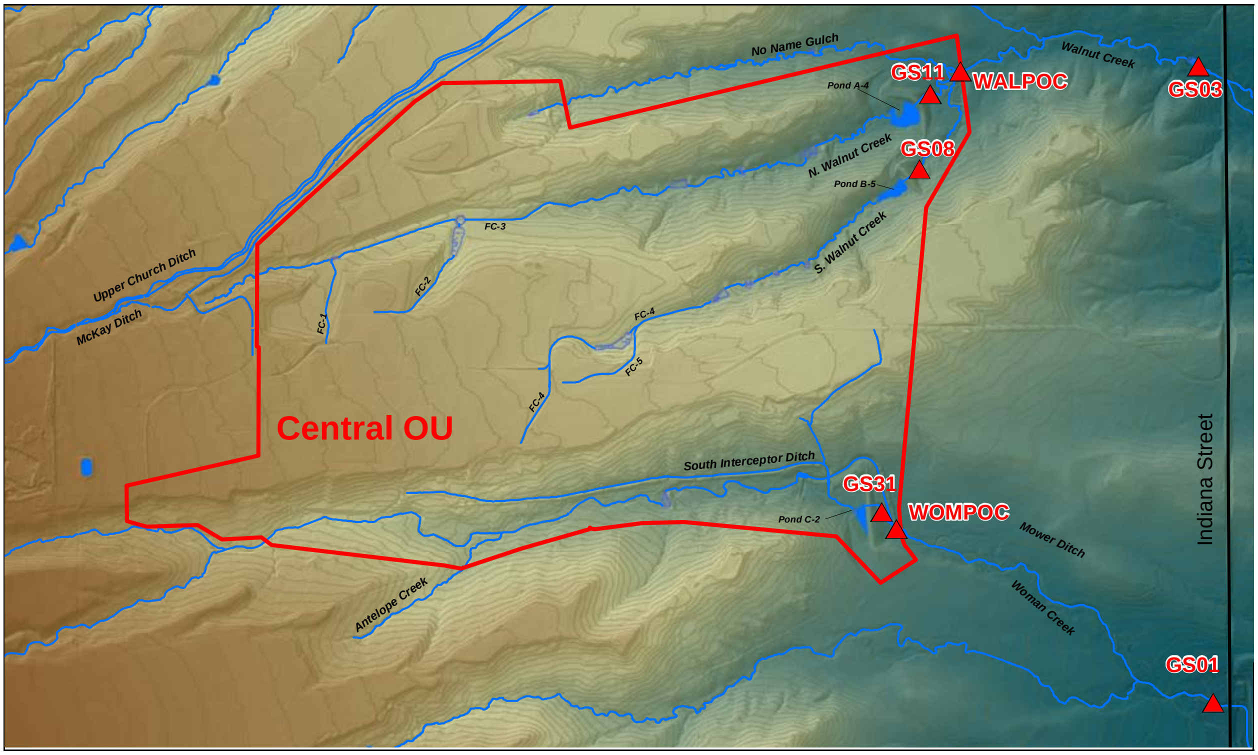


Figure 2. Targeted Groundwater Monitoring Locations

3.3 Monitoring to Evaluate Flow-Through Operations at Terminal Ponds A-4, B-5, and C-2

This objective involves collecting water quality data during flow-through operations to simulate post-breach conditions to determine if water leaving the COU will meet water quality standards after the terminal dams are breached. The specific locations are shown in Figure 3.



Monitoring at GS01 and GS03 was discontinued on October 1, 2015.

Figure 3. Flow-Through Operations Monitoring Locations

The two POCs at the COU boundary, WALPOC and WOMPOC, became operational on September 9, 2011, and September 28, 2011, respectively. At that time, locations GS03 and GS01 were also being operated as POCs, and continued to be operated as POCs until September 28, 2013, and September 9, 2013, respectively. Following those dates and at the request of the AMP participants, GS03 and GS01 were operated as AMP monitoring locations for 2 years. Monitoring at both locations was discontinued on October 1, 2015.

Flow-through operation of Ponds A-4 and B-5 began on September 12, 2011; that was also the first day of flow at WALPOC. Flow-through operation of Pond C-2 began on November 7, 2011. WOMPOC first began measuring flow from Woman Creek on October 14, 2011.

During CY 2016, Pond A-4 (GS11) discharged continuously from January 12, 2016, to June 16, 2016; GS11 was dry the remainder of the year. Pond B-5 (GS08) discharged continuously to July 10, 2016; was dry until October 22, 2016; and then flowed continuously for the remainder of the year. As of February 3, 2017, GS08 is flowing and GS11 is dry (the Pond A-4 water level is below the elevated outlet works).

Pond C-2 (GS31) discharged nearly continuously until June 4, 2016, flowed for 3 days in early July, and was then dry for the remainder of the year. Discharge from C-2 resumed in early February 2017.

Table 1 summarizes the flow and sampling conditions for each location as of late January 2017.

Table 1. Flow and Sampling Detail for Flow-Through Monitoring Locations

Location	Latest Flow[a]	Latest Available Composite Sample Results	Current Composite Sample In Progress
GS08	Currently flowing	5/16–8/15/2016	1/18/2017–
GS11	6/16/2016	5/5–5/21/2016[b]	5/31/2016–
WALPOC	Currently flowing	6/16/2016–1/3/2017	1/30/2017–
GS31	7/4/2016	4/20–5/5/2016	5/5/2016–
WOMPOC	Currently flowing	11/22/2016–1/9/2017	1/9/2017–

Note:
[a] As of February 3, 2017.
[b] Analytical results for the composite sample collected from 1/3-1/30/2017 are pending.

Table 2 presents long-term volume-weighted averages in Walnut Creek for the post-closure batch release period (October 2005 to September 2011) and the period since flow-through pond operations began (September 2011 to the present). Figure 4 through Figure 11 present the 30-day and 12-month rolling averages for each location, analyte, and time period.[2, 3]

The plots show that plutonium (Pu) and americium (Am) activities are generally comparable for the periods before and after initiation of flow-through operations at all locations except GS08. Some increased variability is noted after the initiation of flow-through operations, but activities remain well below the 0.15 picocurie per liter (pCi/L) water-quality standard at all locations except GS08.

At GS08, two composite samples (7/6–8/31/2015 and 8/31–10/12/2015) showed higher than normal Pu and Am activities. While activity at these levels has not been observed since closure, similar activities were observed several times during the closure process. Pu and Am activities at GS08 have remained at more normal levels since October 2015.

Both uranium and nitrate show increases in Walnut Creek due to the dry period from the spring of 2012 to the spring of 2013. At the locations listed above, normally more than half the annual flow is measured during the March through May period. Runoff during this period reduces the proportion of groundwater in creek flows. Since uranium and nitrate at the Site are generally associated with groundwater seepage to the creeks, the normal spring runoff also reduces uranium and nitrate concentrations. This water-quality effect can be clearly observed in the 2015 data.

[2] The RFLMA standards shown on these plots are for reference only. The RFLMA-required evaluation is location-specific (i.e., POCs, POEs) and is not part of this AMP report. Evaluation of sampling results as required by the RFLMA is routinely presented in other reports in accordance with the RFLMA reporting requirements.

[3] Due to the interruptions in automated sampling and the corresponding lack of analytical data for some periods during the September 2013 flood, for comparison purposes the start of the high runoff (generally late on September 11, 2013) through September 13, 2013, is not included in the evaluation in this section. Additionally, some data are estimated for the comparison herein; under normal RFLMA data evaluation protocols, these estimated data would not be included.

Uranium and nitrate increases are also noted for several months following the September 2013 flood event. This extreme event resulted in extensive creek scour and unusually high groundwater recharge. This water subsequently increased the volumes of groundwater reaching the creeks from seepage, thereby sustaining high baseflow for an extended period. An extensive geochemistry study was conducted to examine the transport mechanisms associated with uranium and nitrate at the Site and the effects of the September 2013 flood. The report can be found at:
http://www.lm.doe.gov/Rocky_Flats/RFS_Evaluation_of_Water_Quality_Variability_April_2015.pdf.

Concentrations of both uranium and nitrate also generally increase in the winter months. Both constituents are associated with groundwater sources, therefore when there is little runoff and groundwater makes up a larger portion of the surface-water flow, uranium and nitrate concentrations increase. Also, natural biological activity that consumes nitrate slows down in the lower-temperature winter months, increasing concentrations. Since geochemical conditions are naturally less reducing in the winter and nitrate can act as an oxidizer, uranium can become more mobile, consequently increasing uranium concentrations. These phenomena are also investigated in depth in the geochemistry study noted above.

During batch operations, water was accumulated in the ponds for several months, effectively mixing water with differing concentrations into a homogeneous volume. Therefore, flow-through 12-month rolling averages show month-to-month variability more comparable to that of batch operations. Conversely, flow-through 30-day averages show increased day-to-day variability since water is no longer batched and mixed prior to discharge.

Table 2. Volume-Weighted Averages for Walnut Creek Flow-Through Monitoring Locations

Walnut Creek: October 2005–September 2011 (Batch Release)

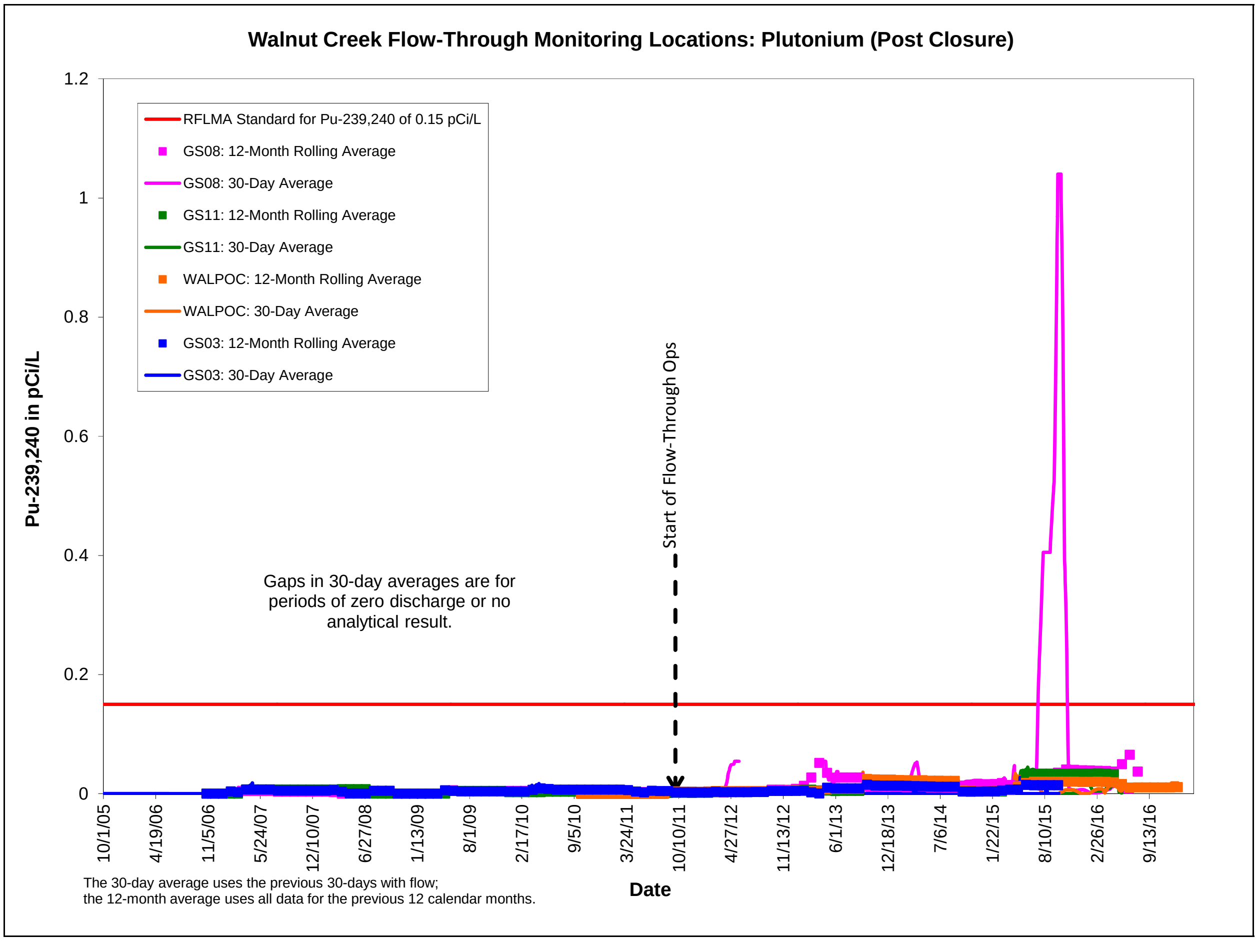
		Uranium (ug/L)		Pu-239,240 (pCi/L)		Am-241 (pCi/L)		NO3+NO2 as N (mg/L)	
	Location Code	Volume-Weighted Average	Sample Count	Volume-Weighted Average	Sample Count	Volume-Weighted Average	Sample Count	Volume-Weighted Average	Sample Count
Upstream	GS08 / GS11	8.8 / 7.6	33 / 36	0.004 / 0.004	33 / 36	0.003 / 0.003	33 / 36	2.79 [GS11 only]	36
Downstream	GS03	4.9	68	0.006	68	0.004	68	0.94	43

Walnut Creek: September 2011–Present (Flow-Through)

		Uranium (ug/L)		Pu-239,240 (pCi/L)		Am-241 (pCi/L)		NO3+NO2 as N (mg/L)	
	Location Code	Volume-Weighted Average	Sample Count	Volume-Weighted Average	Sample Count	Volume-Weighted Average	Sample Count	Volume-Weighted Average	Sample Count
Upstream	GS08 / GS11	9.4 / 10	55 / 45	0.027 / 0.023	55 / 45	0.016 / 0.012	55 / 45	6.33 [GS11 only]	44
↓	WALPOC	9.5	69	0.018	69	0.012	69	2.93	68
Downstream	GS03	5.6	44	0.016	43	0.011	43	2.04	40

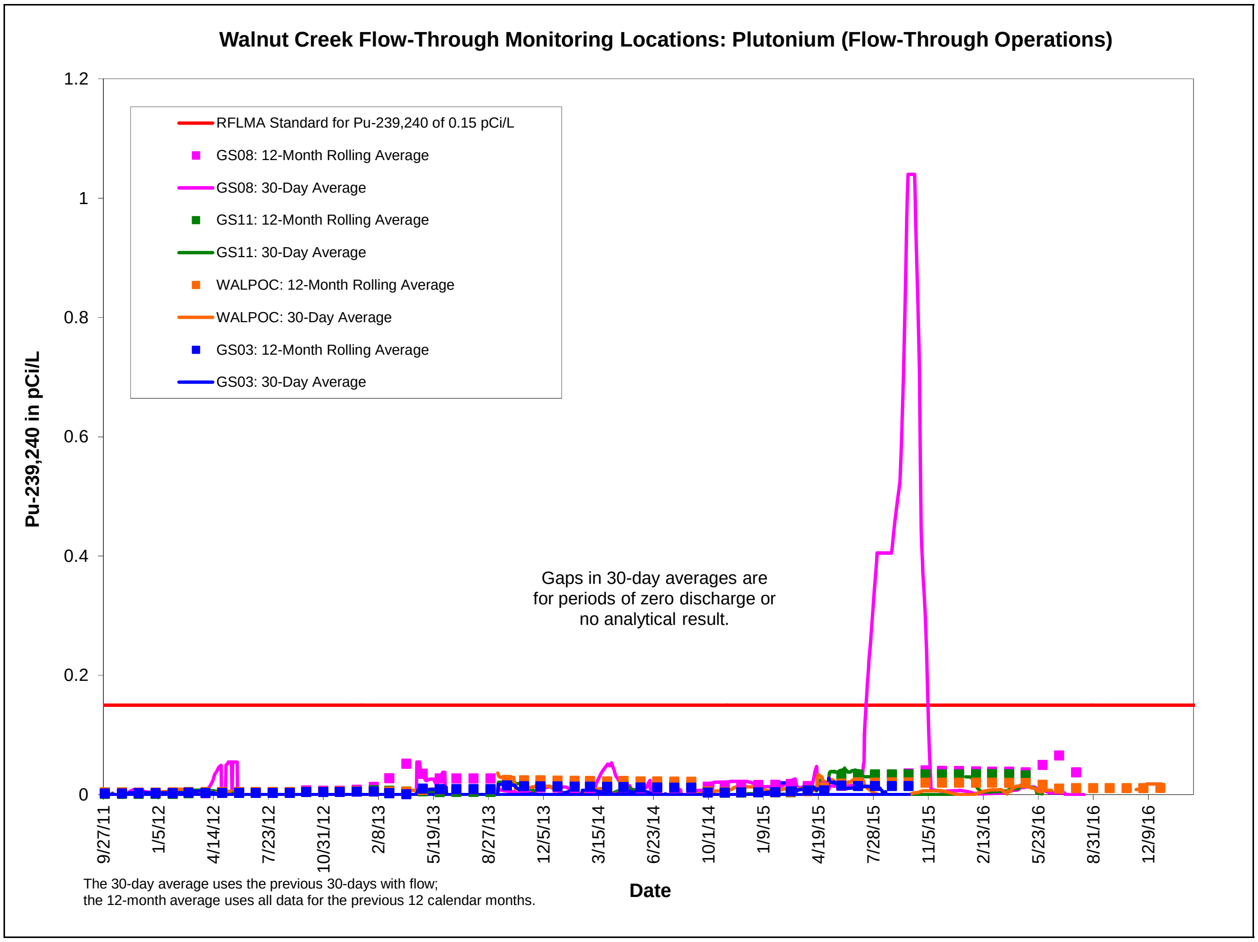
Notes:
Sample counts vary because composite sampling periods vary with water availability.
Summary includes all data available as of January 30, 2017; some recent data are not validated (i.e., are preliminary and subject to revision).
No Name Gulch is a tributary to Walnut Creek, just upstream of WALPOC; any water that flows in No Name Gulch and reaches Walnut Creek could affect water quality at WALPOC.
Monitoring at GS03 was discontinued on October 1, 2015.

Abbreviations:
ug/L = µg/L = micrograms per liter
mg/L = milligrams per liter
N = nitrogen
NO2 = nitrite
NO3 = nitrate



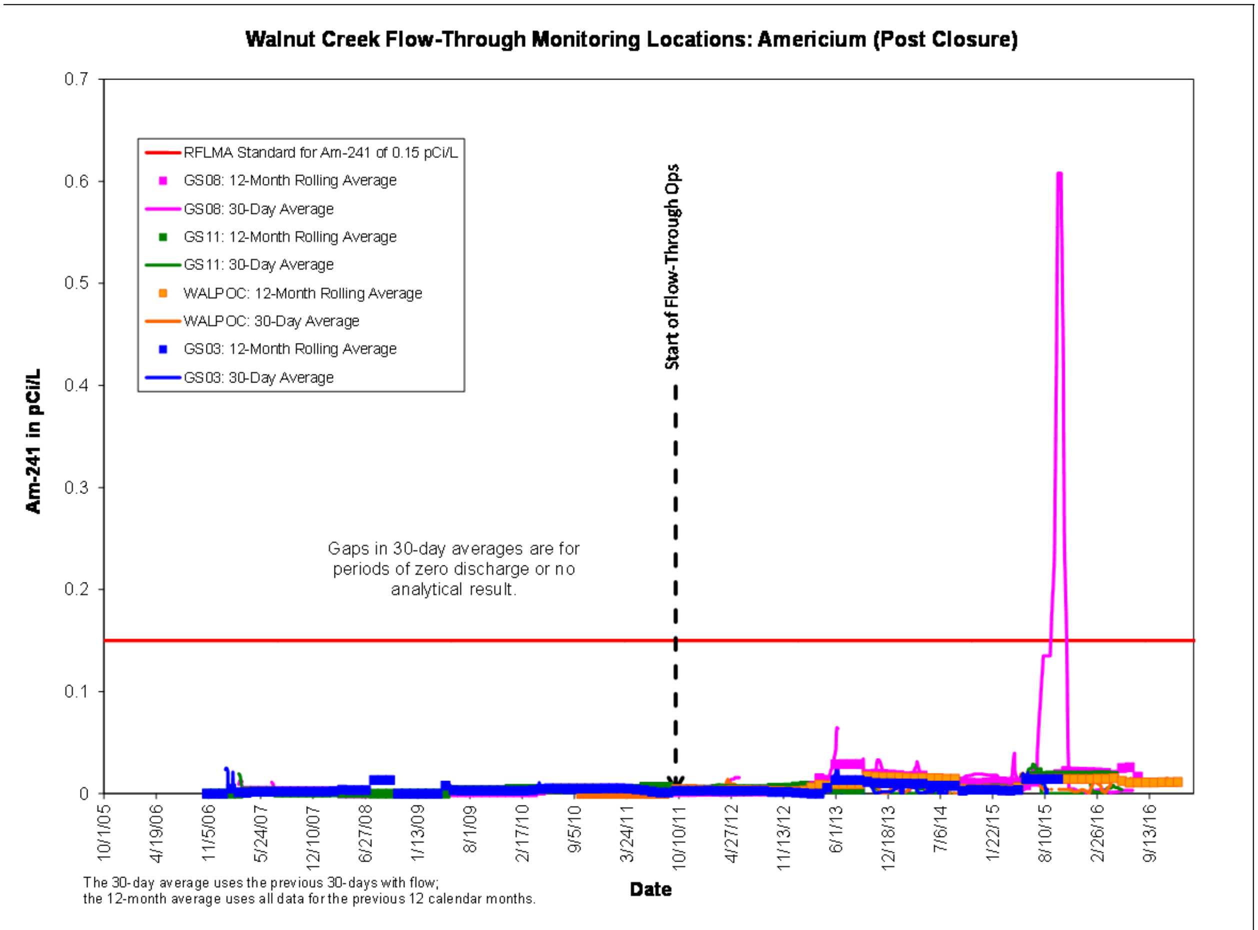
Note:
Monitoring at GS03 was discontinued on October 1, 2015.

Figure 4. Running Plutonium Averages at Walnut Creek Flow-Through Locations: Post-Closure Period



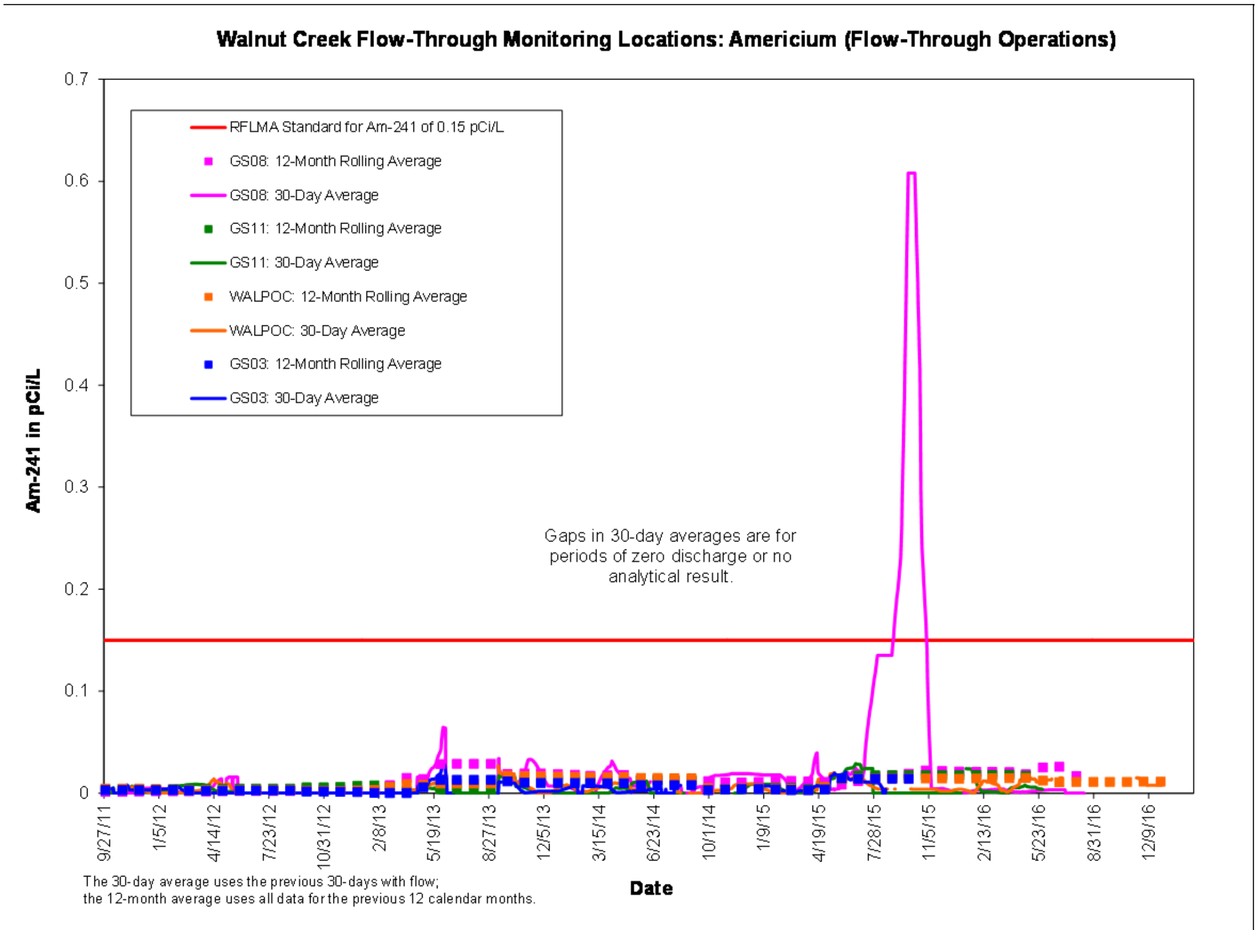
Note:
Monitoring at GS03 was discontinued on October 1, 2015.

Figure 5. Running Plutonium Averages at Walnut Creek Flow-Through Locations: Flow-Through Period



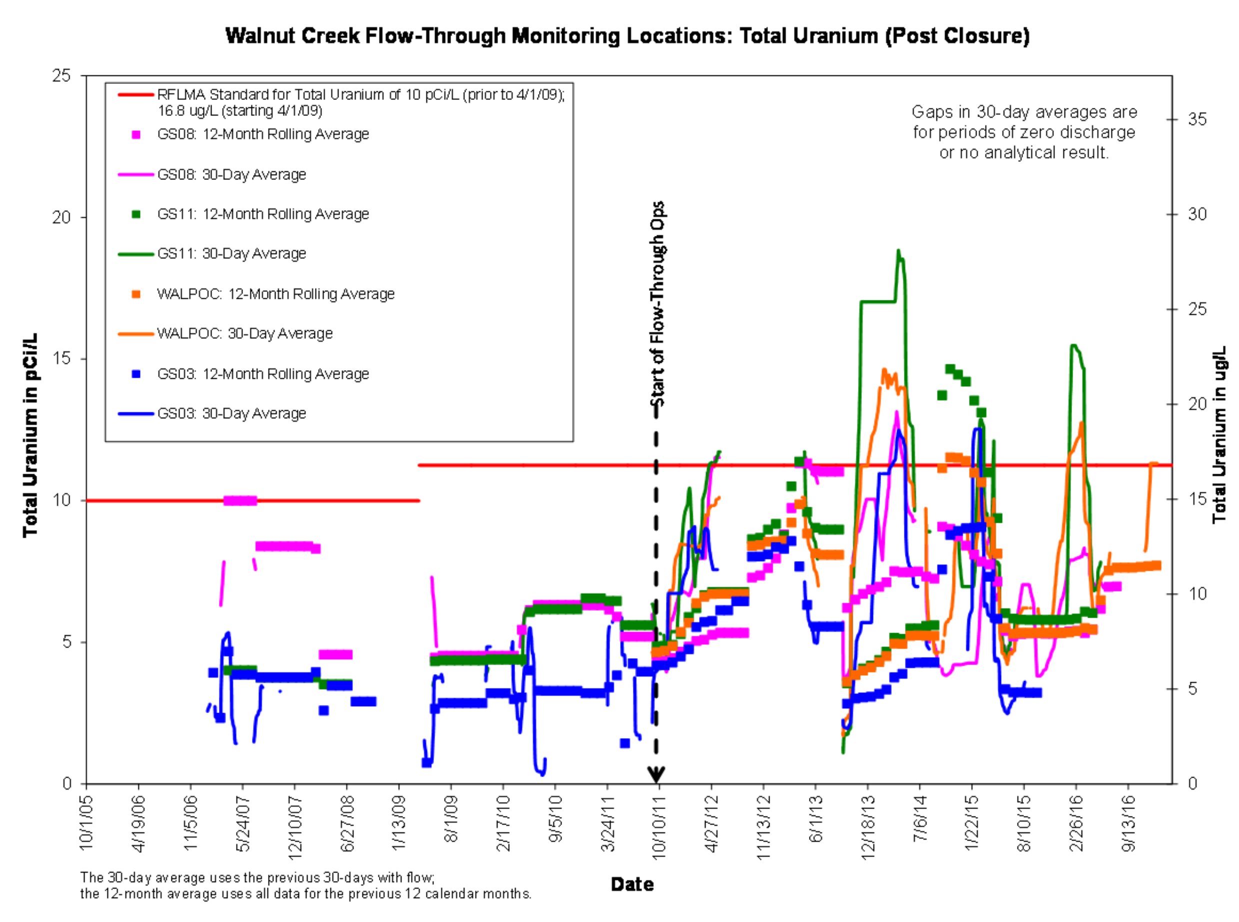
Note:
Monitoring at GS03 was discontinued on October 1, 2015.

Figure 6. Running Americium Averages at Walnut Creek Flow-Through Locations: Post-Closure Period



Note:
Monitoring at GS03 was discontinued on October 1, 2015.

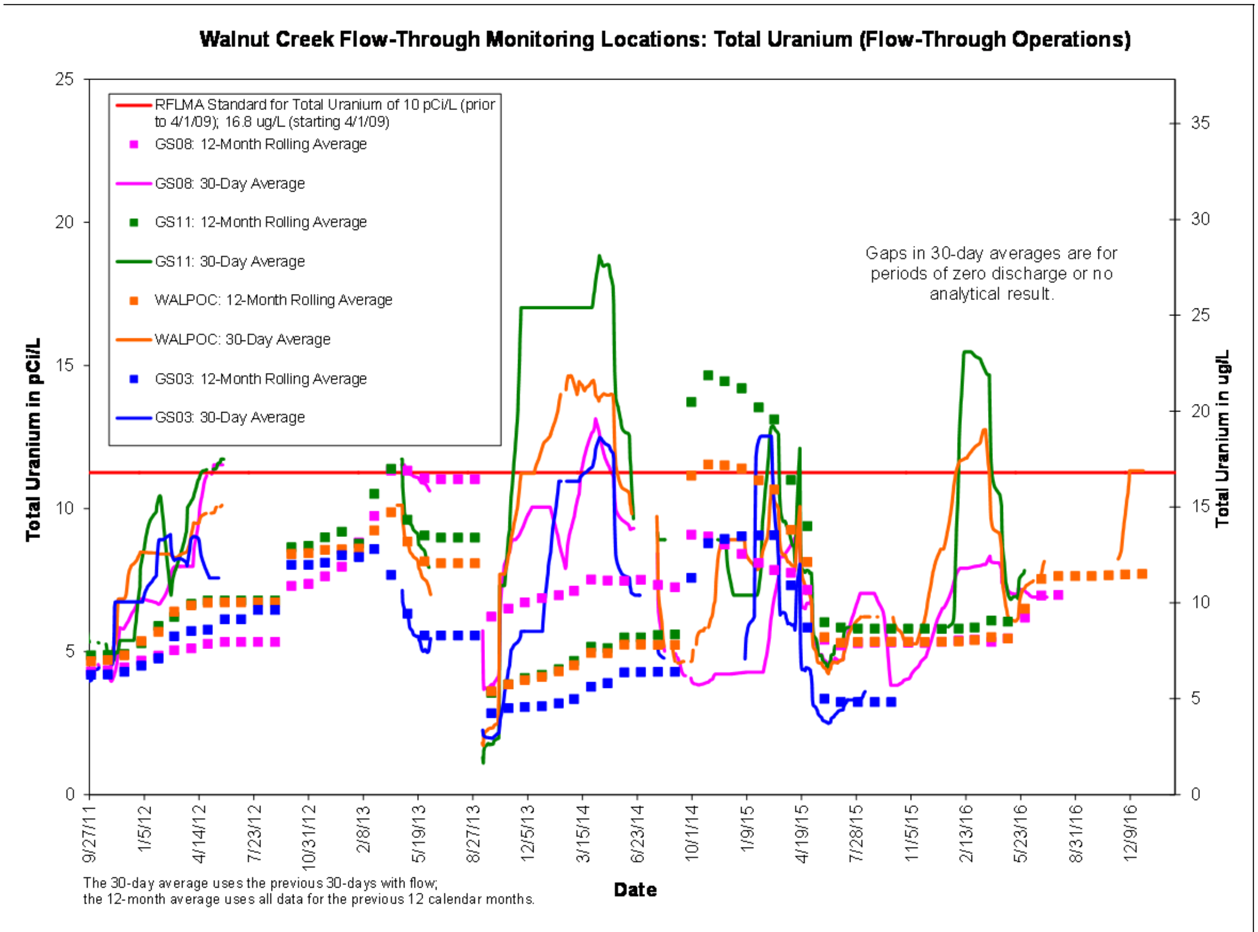
Figure 7. Running Americium Averages at Walnut Creek Flow-Through Locations: Flow-Through Period



Note:
Monitoring at GS03 was discontinued on October 1, 2015.
After April 1, 2009, the µg/L results are shown as pCi/L using the conversion 1 µg/L = 0.67 pCi/L.

Abbreviation:
ug/L = µg/L = micrograms per liter

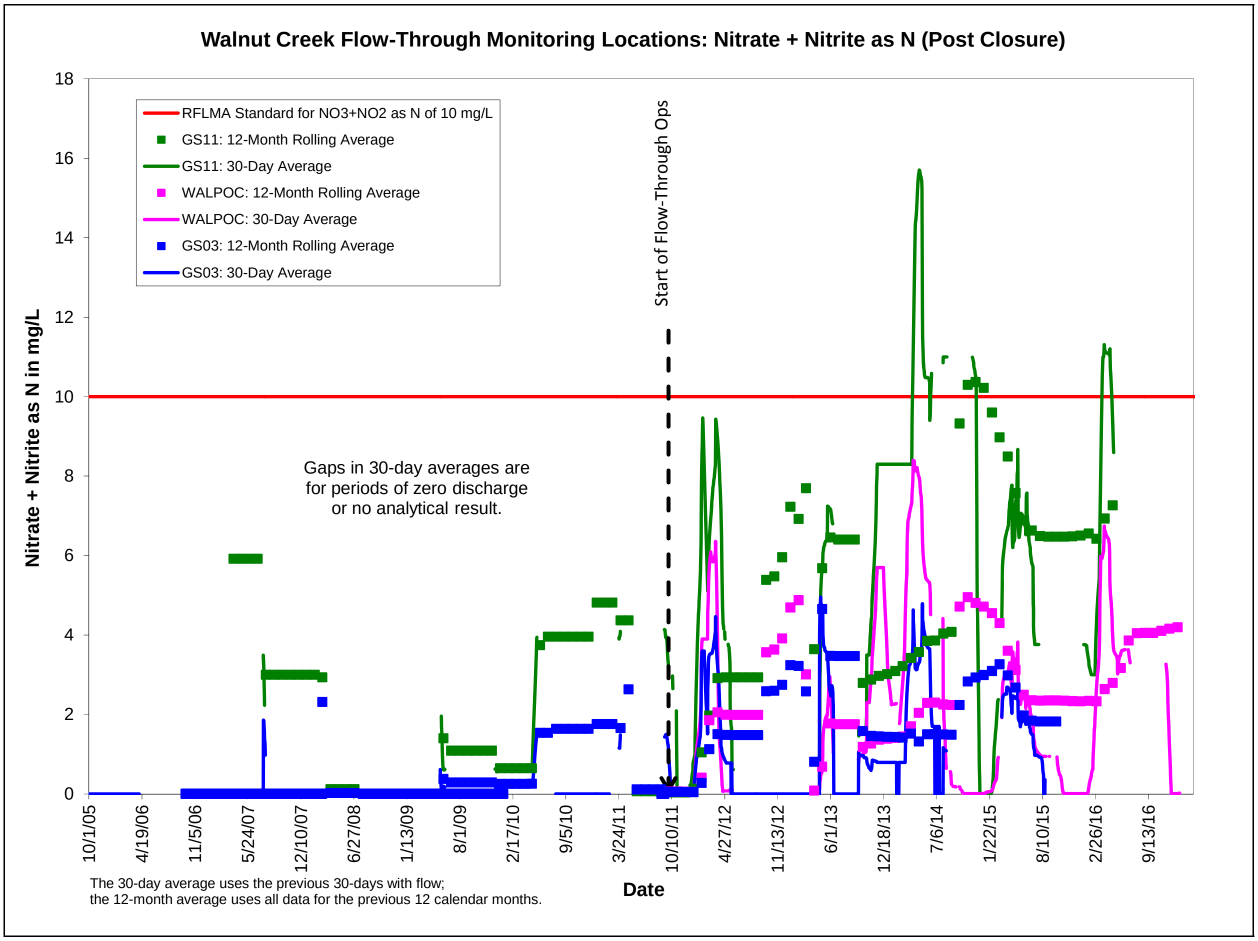
Figure 8. Running Uranium Averages at Walnut Creek Flow-Through Locations: Post-Closure Period



Note:
Monitoring at GS03 was discontinued on October 1, 2015.
After April 1, 2009, the µg/L results are shown as pCi/L using the conversion 1 µg/L = 0.67 pCi/L.

Abbreviation:
ug/L = µg/L = micrograms per liter

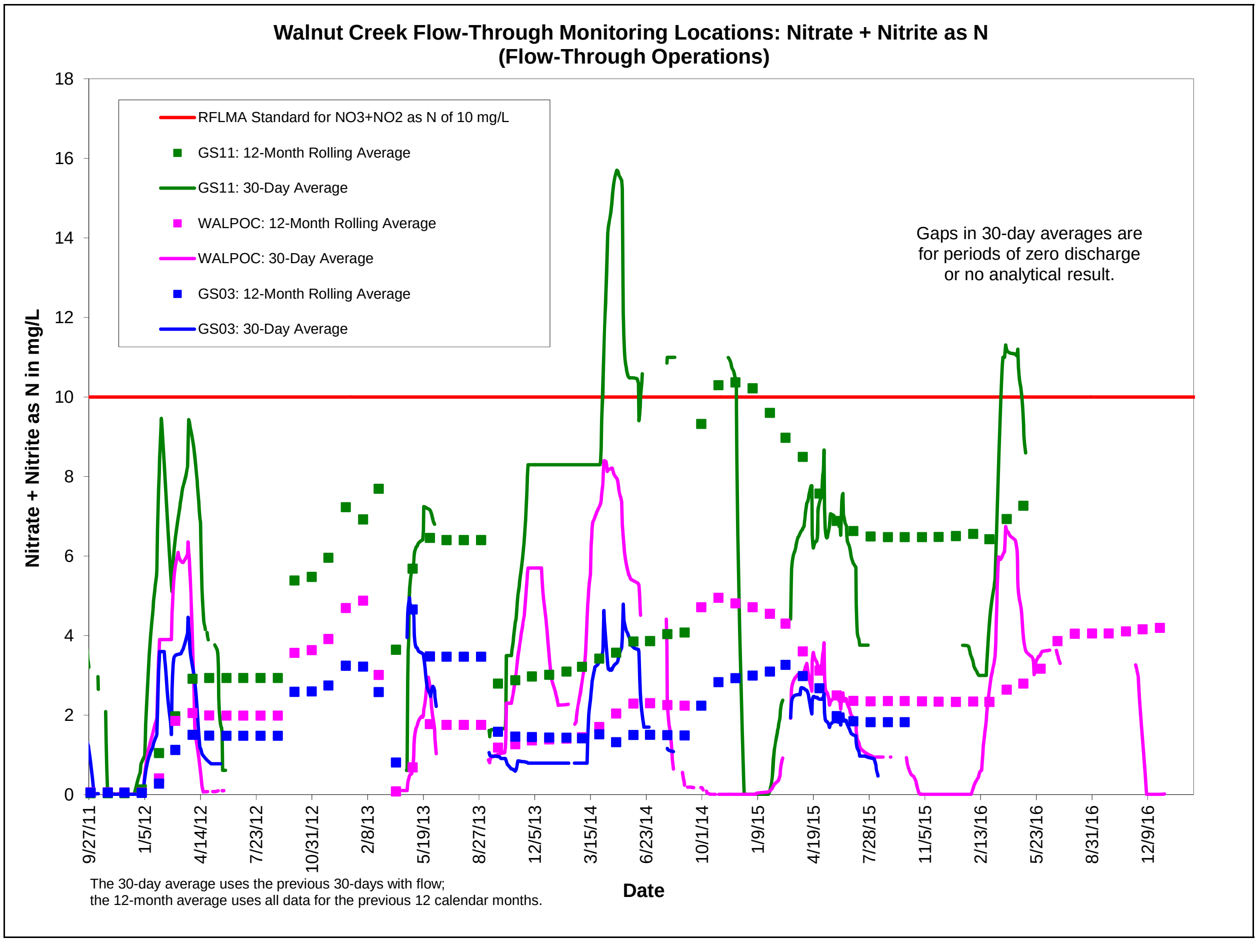
Figure 9. Running Uranium Averages at Walnut Creek Flow-Through Locations: Flow-Through Period



Note:
Monitoring at GS03 was discontinued on October 1, 2015.

Abbreviations:
mg/L = milligrams per liter
N = nitrogen
NO2 = nitrite
NO3 = nitrate

Figure 10. Running Nitrate + Nitrite as Nitrogen Averages at Walnut Creek Flow-Through Locations: Post-Closure Period



Note:
Monitoring at GS03 was discontinued on October 1, 2015.

Abbreviations:
mg/L = milligrams per liter
N = nitrogen
NO2 = nitrite
NO3 = nitrate

Figure 11. Running Nitrate + Nitrite as Nitrogen Averages at Walnut Creek Flow-Through Locations: Flow-Through Period

Table 3 presents long-term volume-weighted averages in Woman Creek for the post-closure batch release period (October 2005 to November 2011) and the period since flow-through pond operations began (November 2011 to the present). Figure 12 through Figure 17 present the 30-day and 12-month rolling averages for each location, analyte, and time period.[4]

For uranium, the plots show that water quality is comparable and remains below the applicable standard for batch and flow-through conditions. As discussed for Walnut Creek, flow-through 12-month rolling averages show month-to-month variability comparable to that of batch

[4] The RFLMA standards shown on these plots are for reference only. The RFLMA-required evaluation is location-specific (i.e., POCs, POEs) and is not part of this AMP report. Evaluation of sampling results as required by RFLMA is routinely presented in other reports in accordance with the RFLMA reporting requirements.

operations. Conversely, flow-through 30-day averages show increased day-to-day variability since water is no longer being batched and mixed prior to discharge.

For GS31 (outlet from Pond C-2), the significantly higher Pu and Am activities in 2015 are associated with the high runoff during the spring of 2015. These activities are a result of runoff from the South Interceptor Ditch (SID) passing through Pond C-2. This runoff also resulted in reportable 12-month rolling Pu activities at Point of Evaluation (POE) SW027. A detailed discussion of the reportable condition and subsequent mitigating response can be found in the quarterly reports for 2015. Note that Pu and Am activities at GS31 in 2016 are reduced (as indicated by the 30-day average) and activities at the downstream POC (WOMPOC) remain well below the 0.15 pCi/L standard.

Table 3. Volume-Weighted Averages for Woman Creek Flow-Through Monitoring Locations

Woman Creek: October 2005–November 2011 (Batch Release)

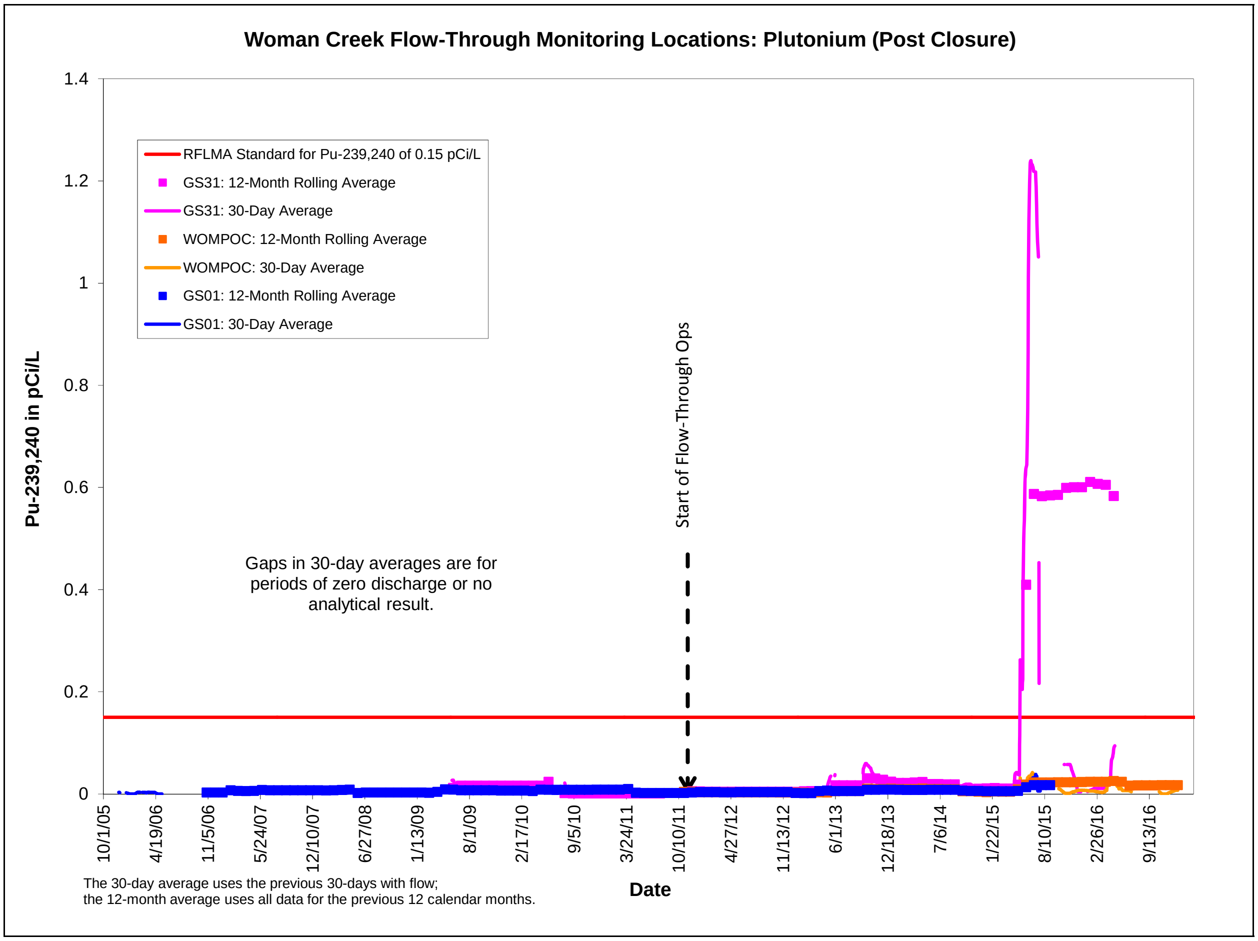
		Uranium (ug/L)		Pu-239,240 (pCi/L)		Am-241 (pCi/L)	
	Location Code	Volume-Weighted Average	Sample Count	Volume-Weighted Average	Sample Count	Volume-Weighted Average	Sample Count
Upstream	GS31	4.1	12	0.007	12	0.004	12
Downstream	GS01	2.3	95	0.007	95	0.004	95

Woman Creek: November 2011–Present (Flow-Through)

		Uranium (ug/L)		Pu-239,240 (pCi/L)		Am-241 (pCi/L)	
	Location Code	Volume-Weighted Average	Sample Count	Volume-Weighted Average	Sample Count	Volume-Weighted Average	Sample Count
Upstream	GS31	6.3	33	0.288	33	0.050	33
⬇	WOMPOC	2.0	84	0.019	84	0.007	84
Downstream	GS01	2.1	45	0.014	45	0.007	45

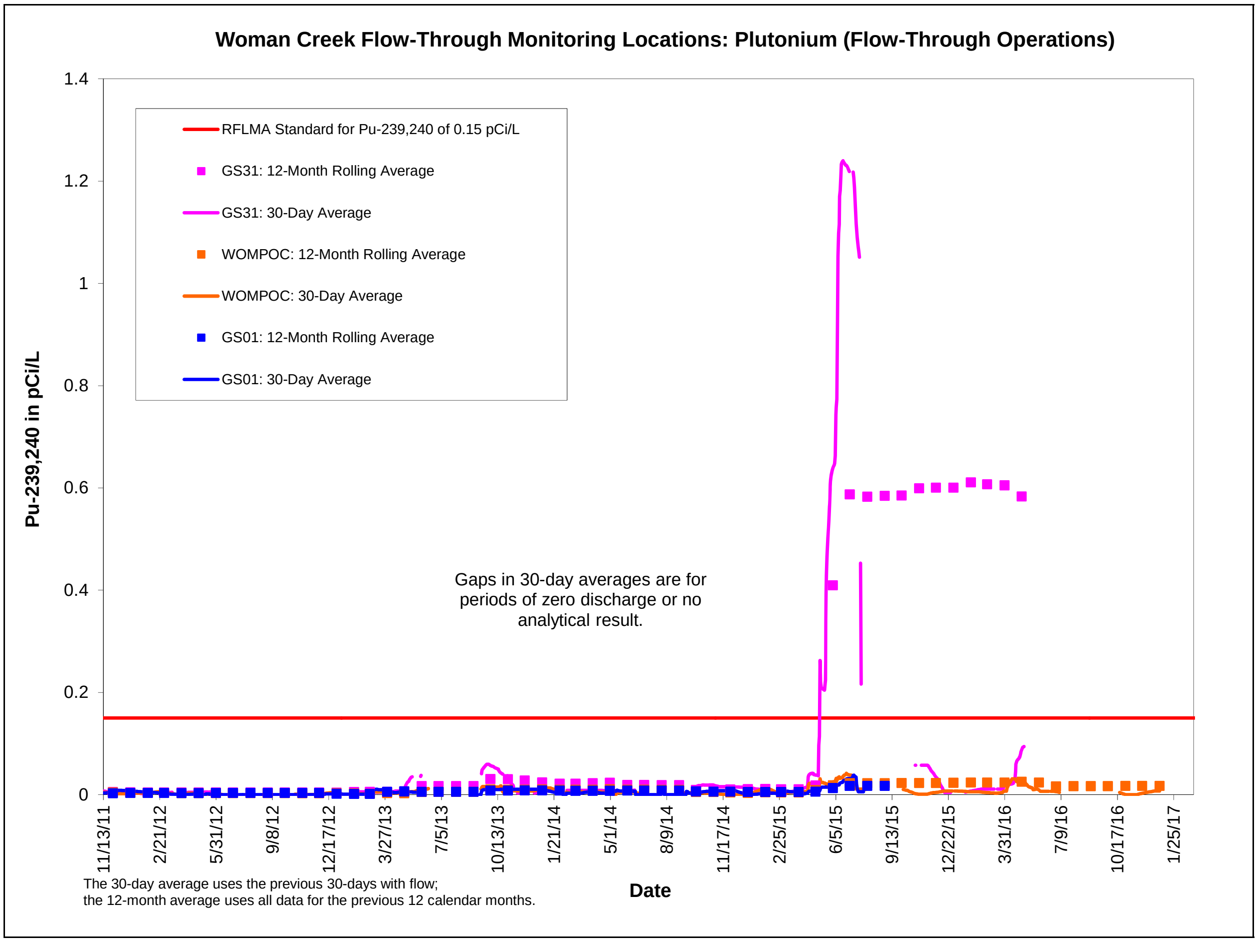
Notes:
Sample counts vary because composite sampling periods vary with water availability.
Monitoring at GS01 was discontinued on October 1, 2015.

Abbreviation:
ug/L = µg/L = micrograms per liter



Notes:
Monitoring at GS01 was discontinued on October 1, 2015.
The composite sample started on May 5, 2016, at GS31 is still in progress.

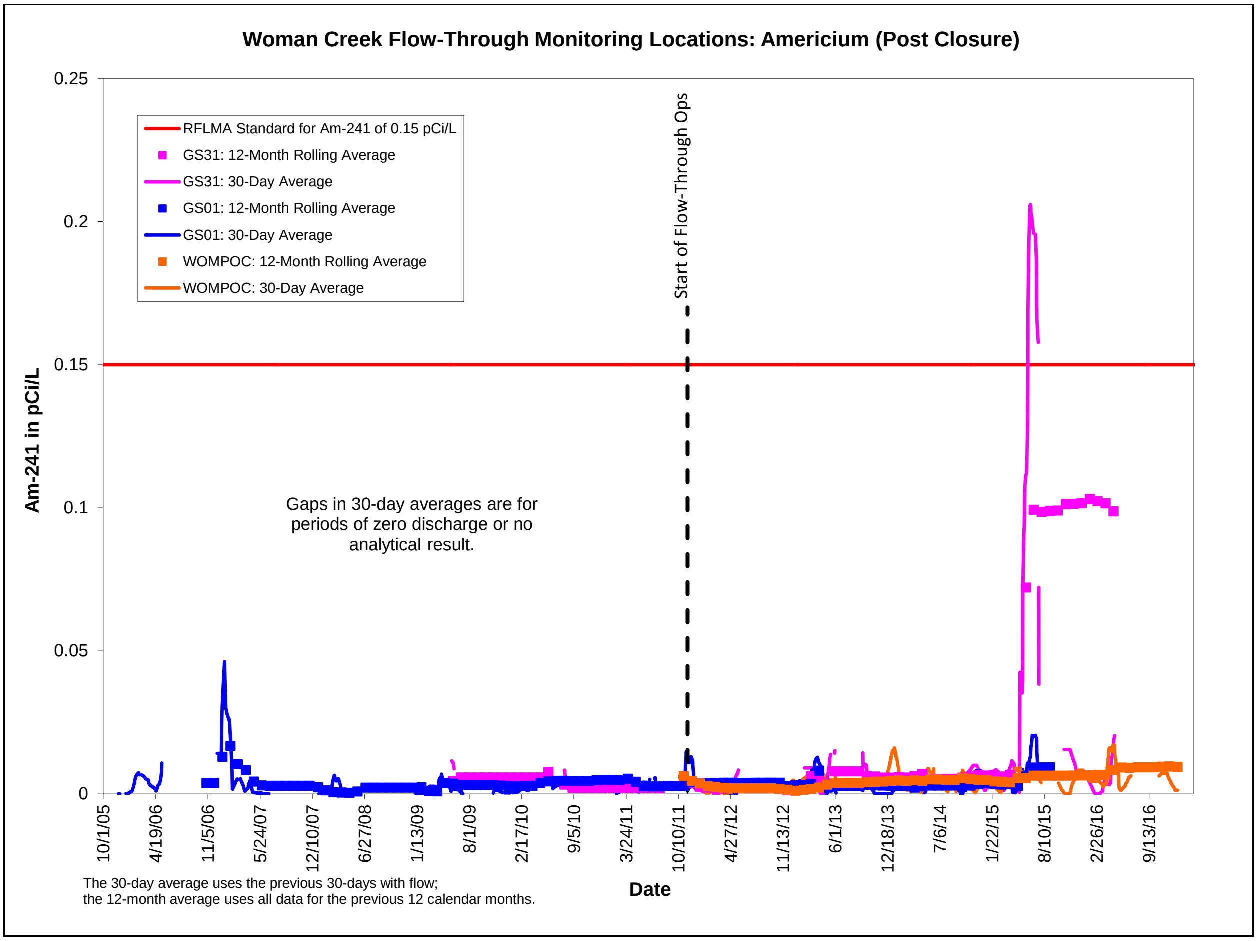
Figure 12. Running Plutonium Averages at Woman Creek Flow-Through Locations: Post-Closure Period



Notes:

Monitoring at GS01 was discontinued on October 1, 2015.
The composite sample started on May 5, 2016, at GS31 is still in progress.

Figure 13. Running Plutonium Averages at Woman Creek Flow-Through Locations: Flow-Through Period

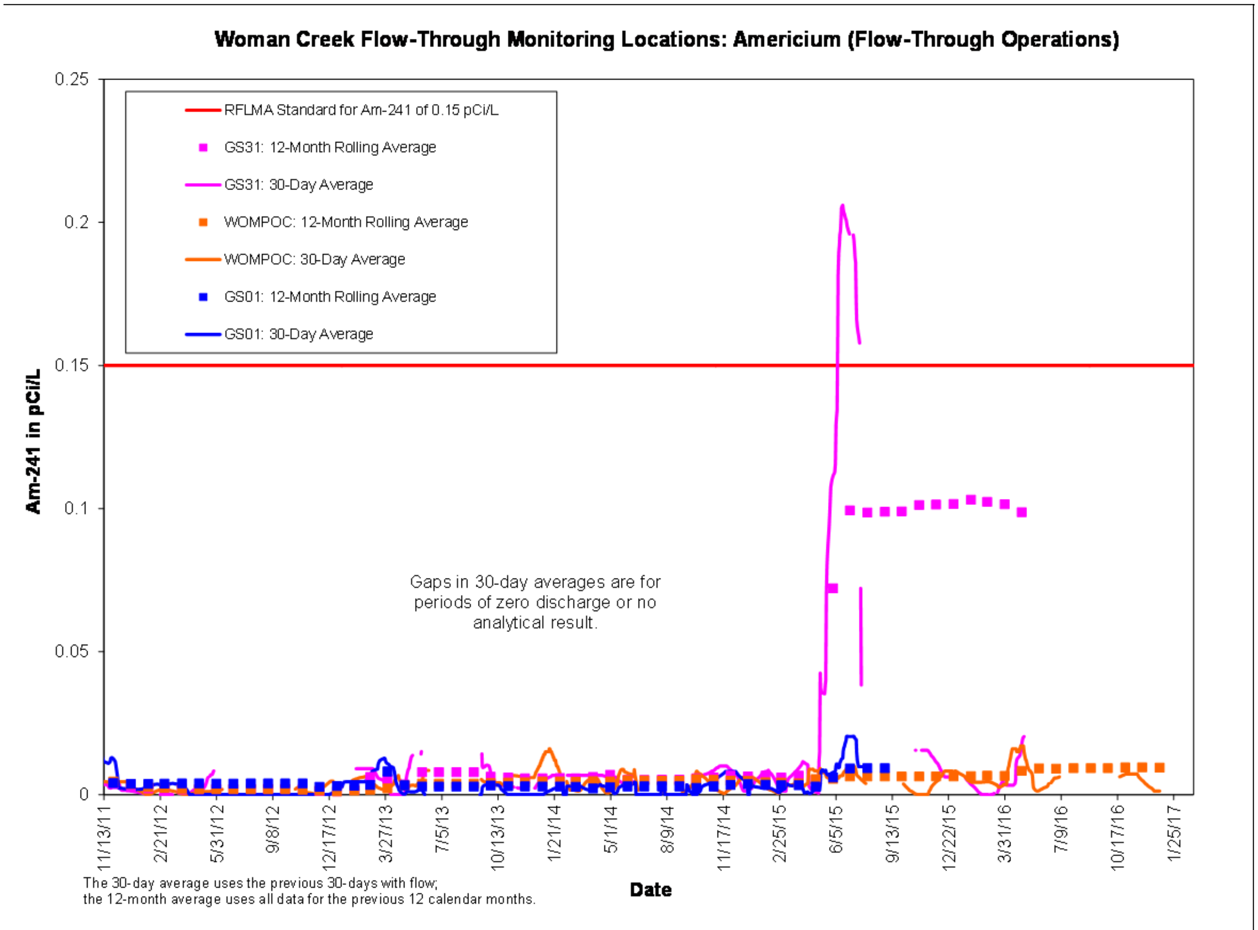


Notes:

Monitoring at GS01 was discontinued on October 1, 2015.

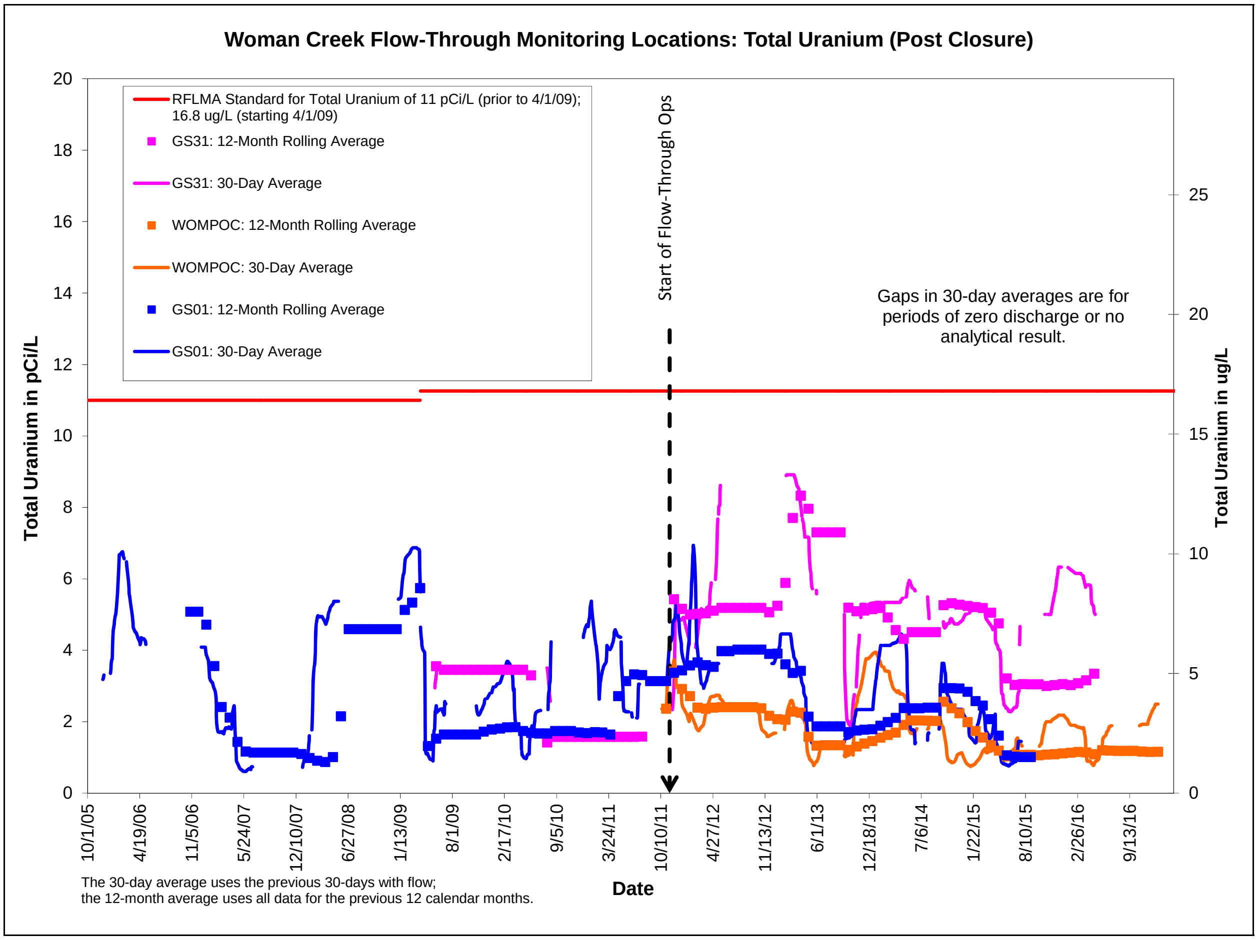
The composite sample started on May 5, 2016, at GS31 is still in progress.

Figure 14. Running Americium Averages at Woman Creek Flow-Through Locations: Post-Closure Period



Notes:
Monitoring at GS01 was discontinued on October 1, 2015.
The composite sample started on May 5, 2016, at GS31 is still in progress.

Figure 15. Running Americium Averages at Woman Creek Flow-Through Locations: Flow-Through Period



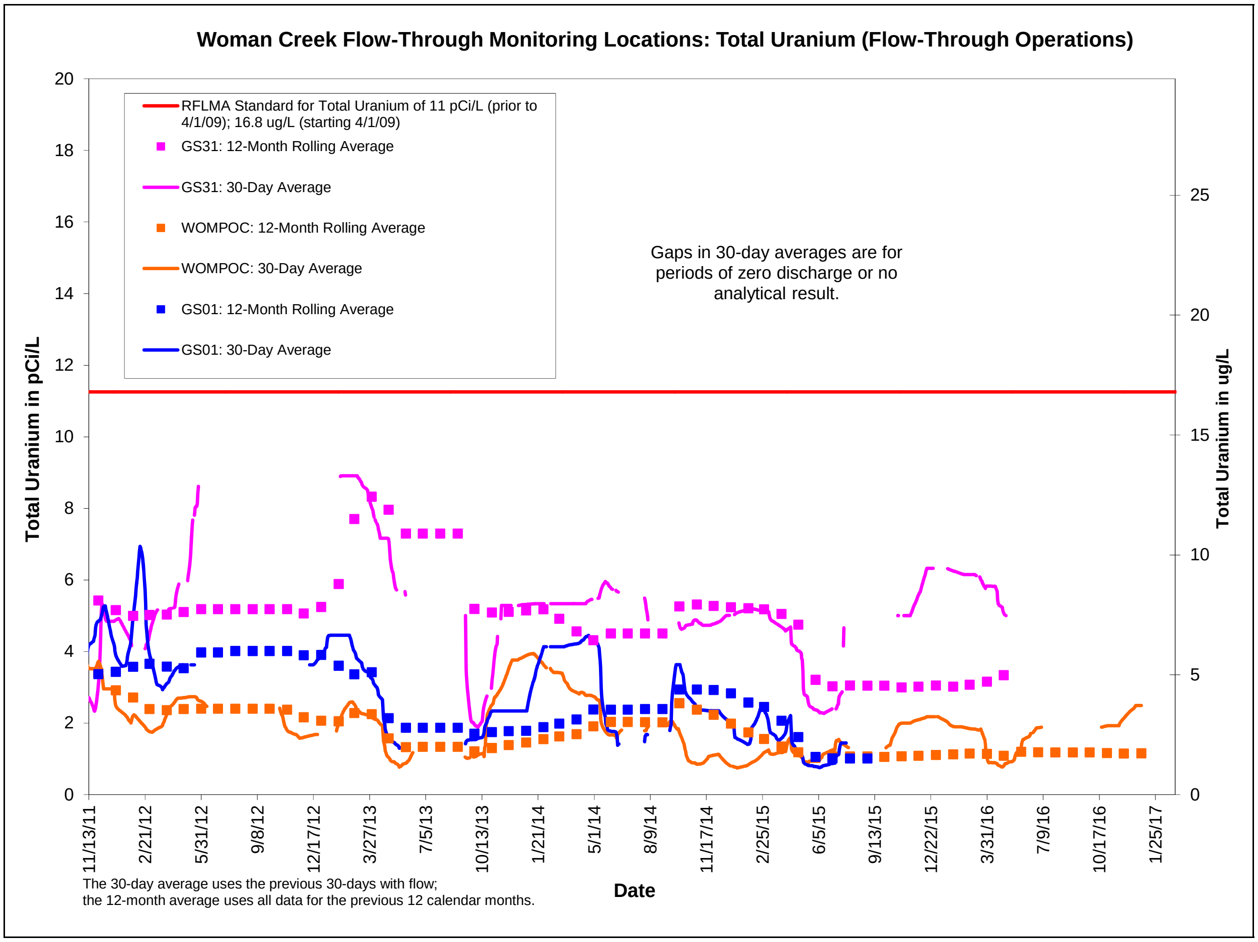
Notes:

Monitoring at GS01 was discontinued on October 1, 2015.
The composite sample started on May 5, 2106, at GS31 is still in progress.
After April 1, 2009, the µg/L results are shown as pCi/L using the conversion 1 µg/L = 0.67 pCi/L.

Abbreviation:

ug/L = µg/L = micrograms per liter

Figure 16. Running Uranium Averages at Woman Creek Flow-Through Locations: Post-Closure Period



Notes:
Monitoring at GS01 was discontinued on October 1, 2015.
The composite sample started on May 5, 2016, at GS31 is still in progress.
After April 1, 2009, the µg/L results are shown as pCi/L using the conversion 1 µg/L = 0.67 pCi/L.

Abbreviation:
ug/L = µg/L = micrograms per liter

Figure 17. Running Uranium Averages at Woman Creek Flow-Through Locations: Flow-Through Period

3.4 Storm-Event Monitoring

This objective involves collecting water quality data during runoff periods to assess actinide and solids transport. The intent is to develop correlations between flow rate and actinide concentrations and to further describe short-term, event-driven variability. In addition, these data can be used to assess the effectiveness of ongoing revegetation and erosion control practices. The specific location is shown in Figure 18 and Figure 19.

Storm-event monitoring equipment at GS31 at the Pond C-2 outlet was installed in spring 2012 to specifically evaluate water quality when runoff passes through Pond C-2 while being operated in a flow-through configuration.

During 2016, one runoff event was sampled at GS31 when SW027 was contributing flow to Pond C-2. Hydrographs with sample events are given in Figure 20 through Figure 25. Analytical results are listed in Table 4.

Various correlations are plotted in Figure 26 through Figure 29 for the relatively few results available. Good correlations are observed for Pu, Am, and uranium in relation to flow rate. Figure 27 shows increasing Pu and Am activity with increasing flowrate. Since Pu and Am move in association with suspended solids (i.e., soil particles), this correlation is expected as increased flow rate generally results in increased total suspended solids (TSS). However, Figure 29 shows no relationship between flow rate and TSS. Therefore, the increased activity may depend on the origin of the runoff for specific events. In other words, if an area with higher residual contamination, like the 903 Lip Area, contributes a higher proportion of runoff during large runoff events, then an increase in activity would consequently be observed for higher flow rates.

Figure 28, in contrast, shows a decrease in uranium concentration with an increase in flow rate. This water-quality effect is observed at locations on the Site as naturally occurring uranium from groundwater sources is diluted during runoff events.

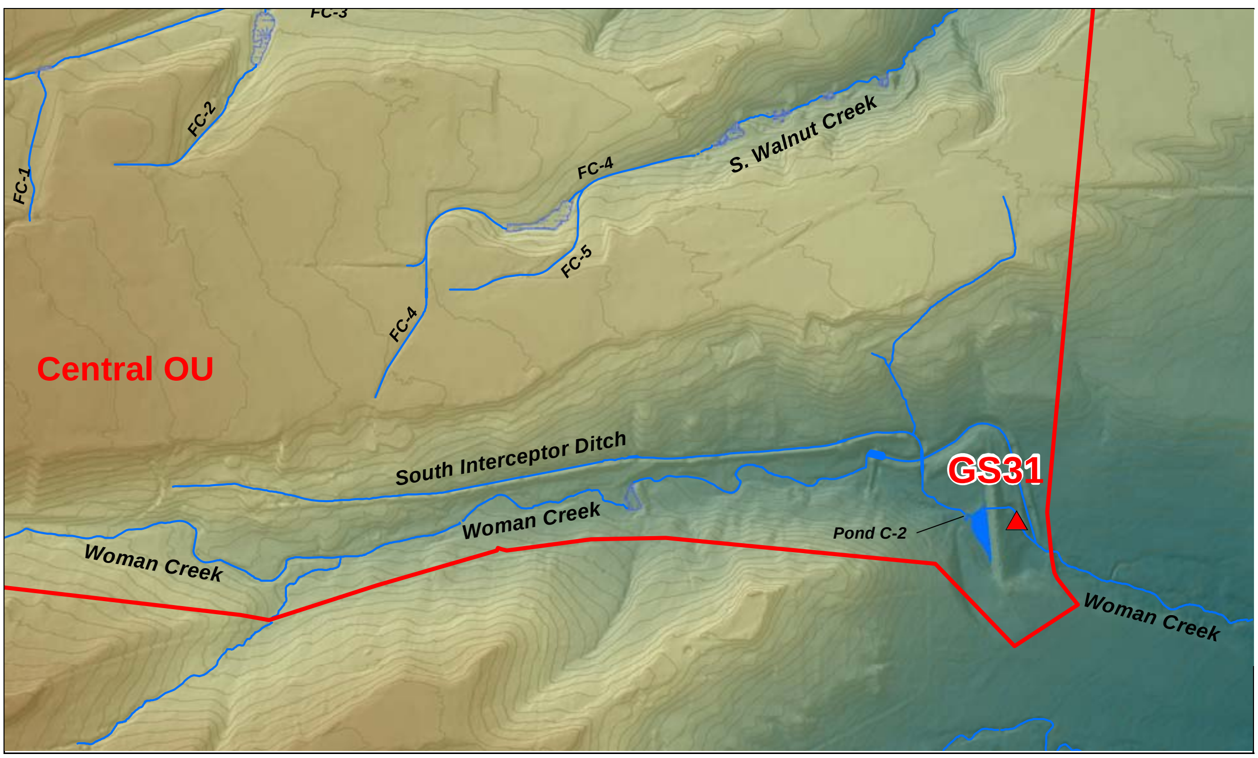


Figure 18. Storm-Event Monitoring Location GS31

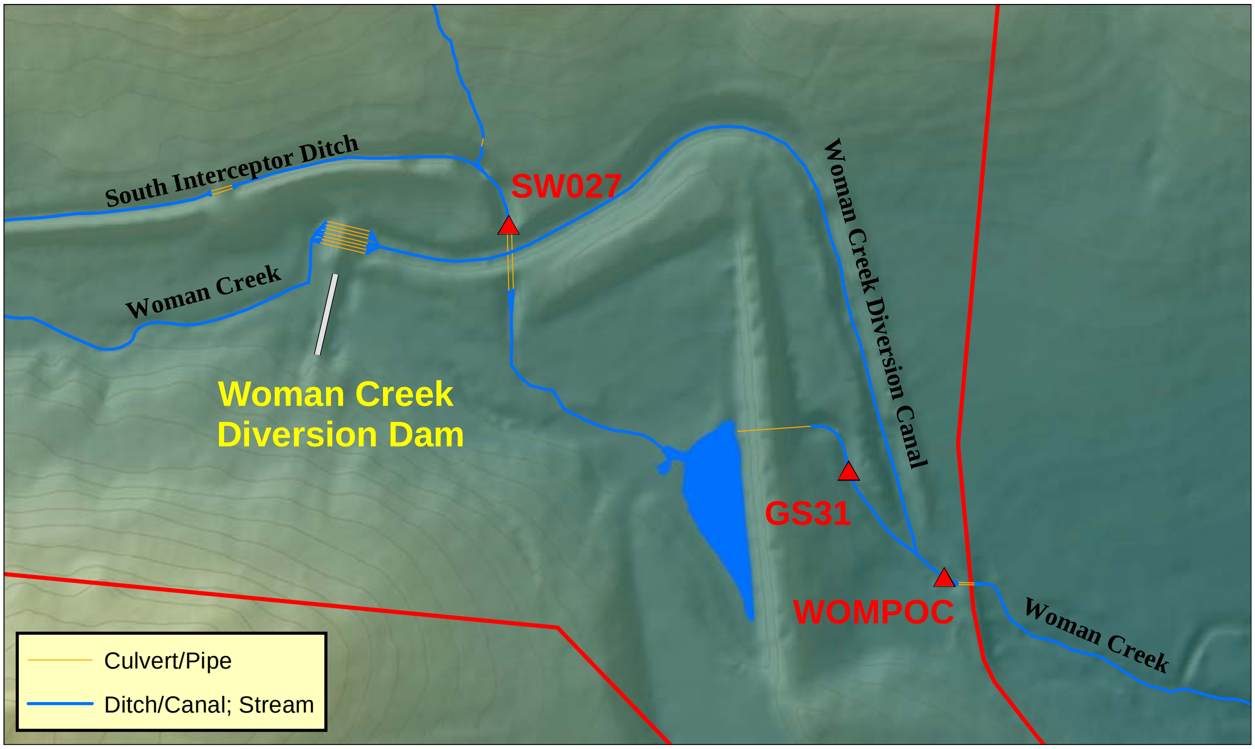


Figure 19. Detail Map for Storm-Event Monitoring Location GS31

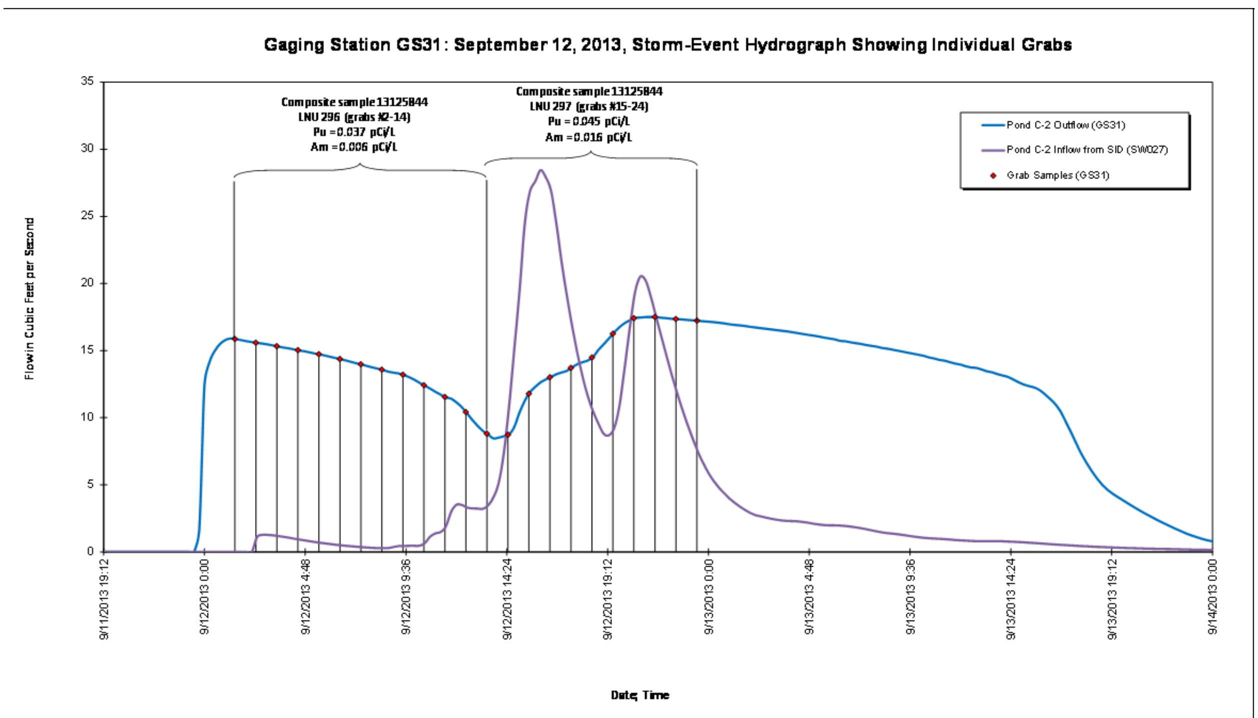


Figure 20. Storm-Event Hydrograph at GS31: September 12, 2013

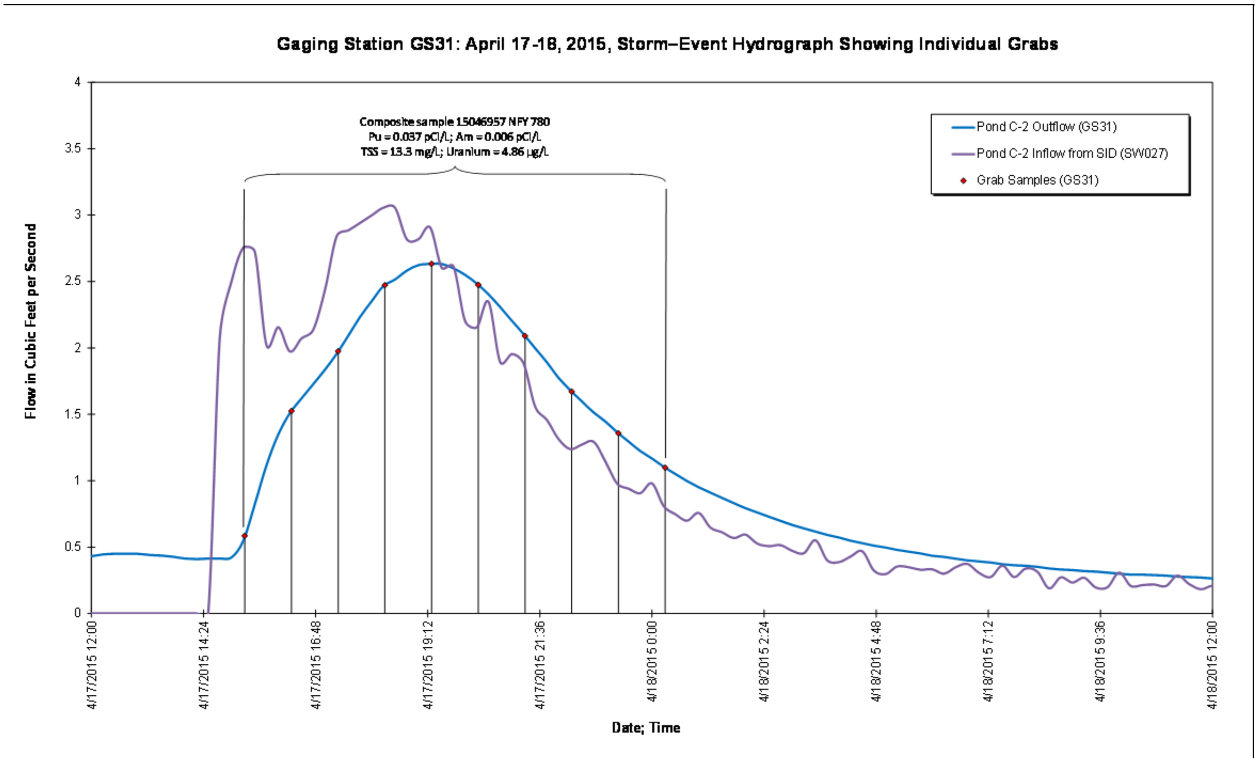


Figure 21. Storm-Event Hydrograph at GS31: April 17–18, 2015

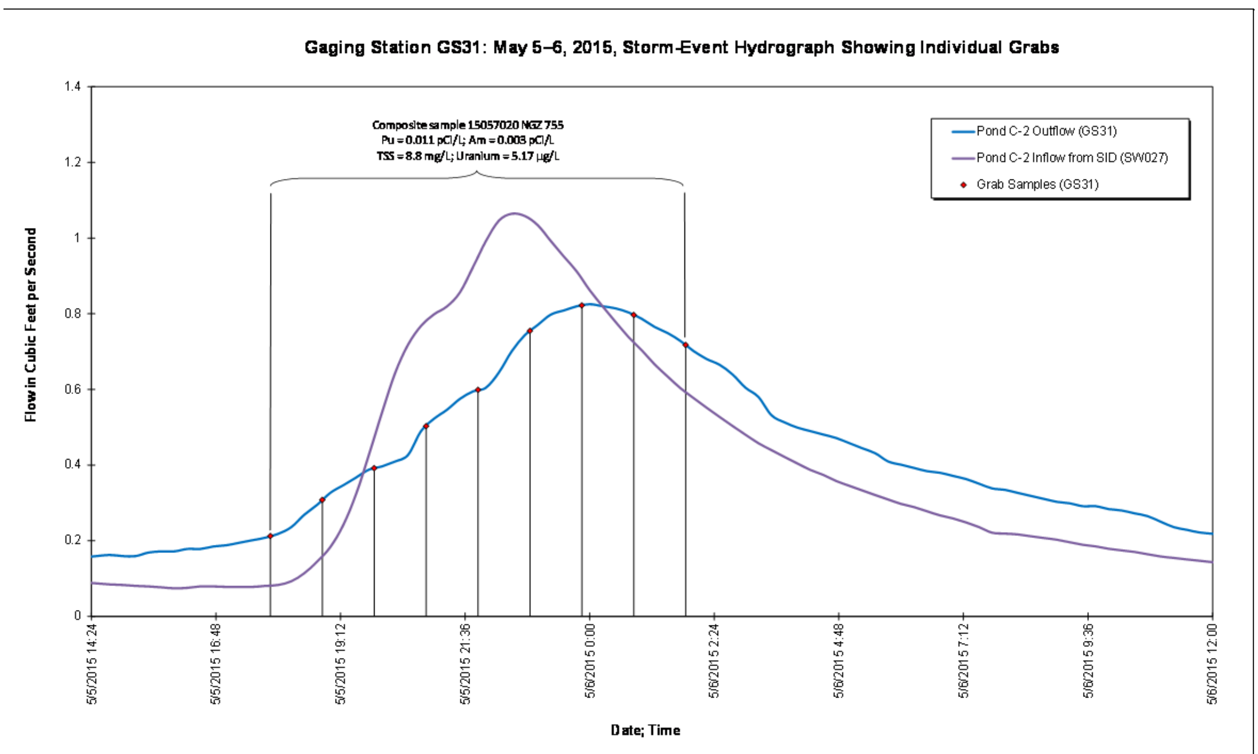


Figure 22. Storm-Event Hydrograph at GS31: May 5–6, 2015

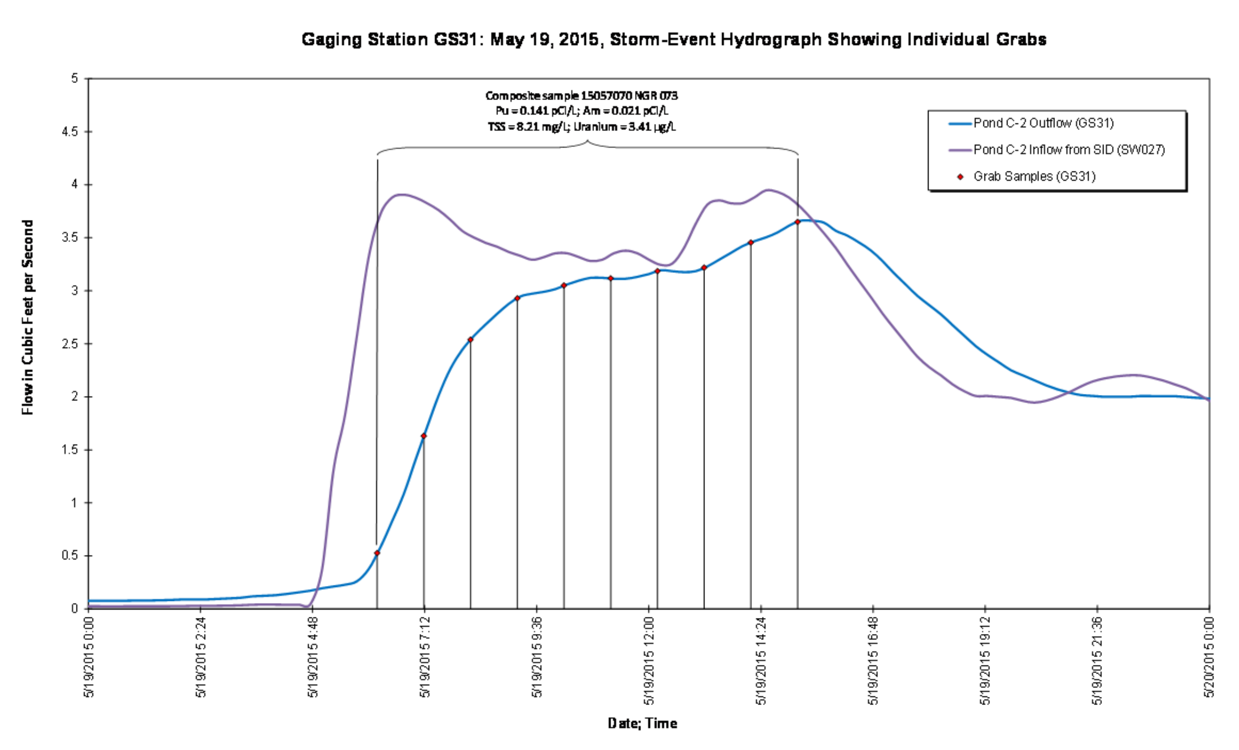


Figure 23. Storm-Event Hydrograph at GS31: May 19, 2015

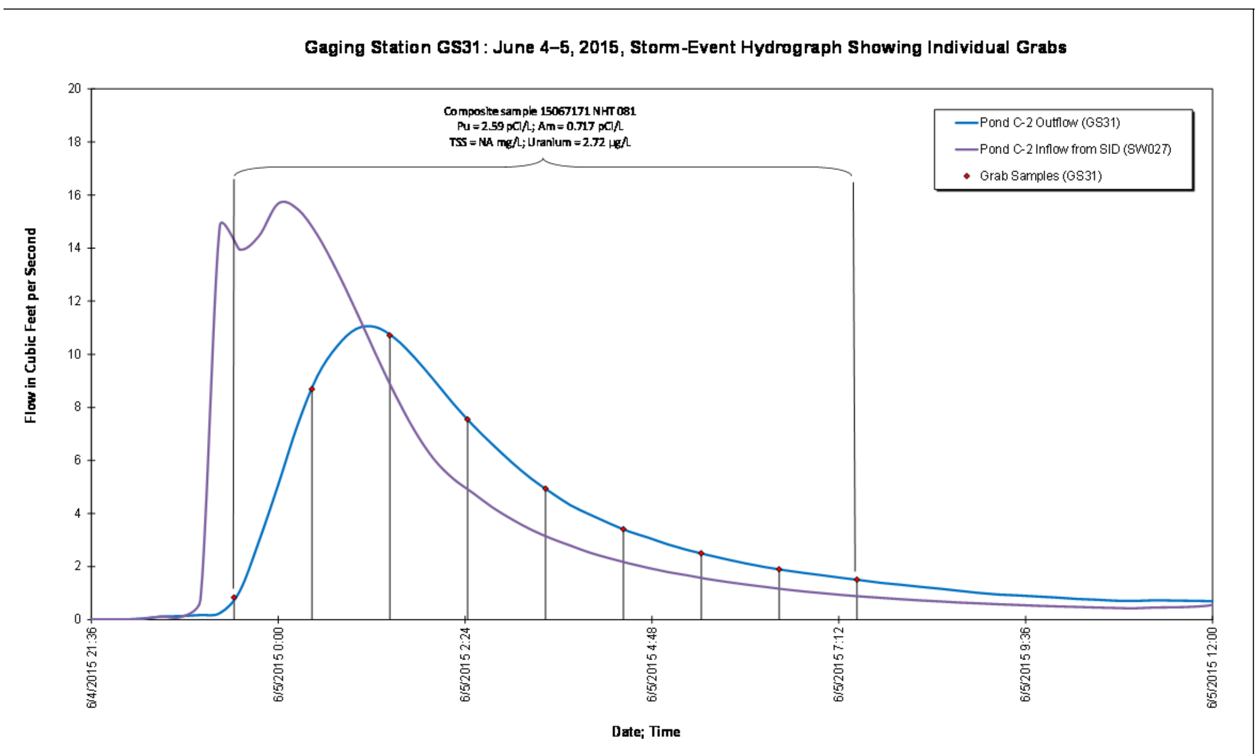


Figure 24. Storm-Event Hydrograph at GS31: June 4–5, 2015

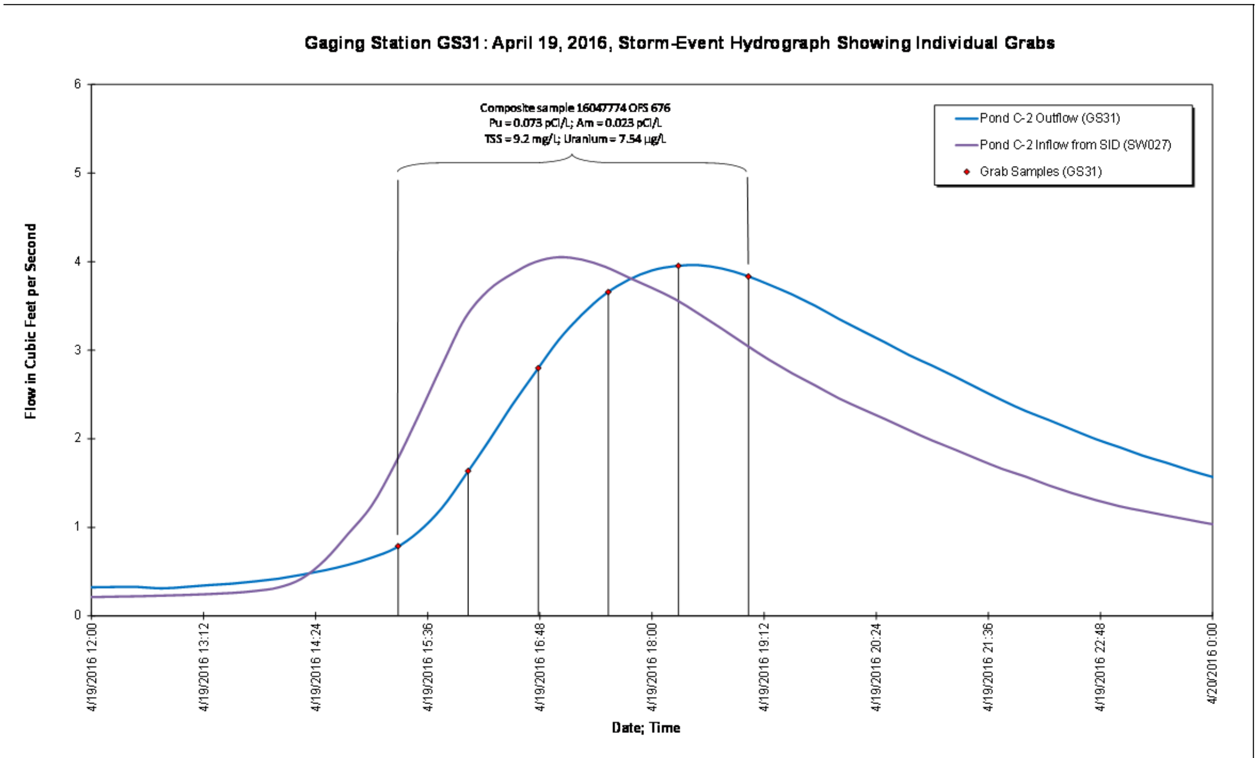


Figure 25. Storm-Event Hydrograph at GS31: April 19, 2016

Table 4. GS31 Storm-Event Sample Results

Sampling Date(s)	Pu-239, 240 [pCi/L]	Am-241 [pCi/L]	Uranium [µg/L]	TSS [mg/L]	Flow Rate [cfs]
9/12/2013[a]	0.037	0.006	1.41	NA	13.5
9/12/2013[b]	0.045	0.016	1.11	NA	14.7
4/17/2015	0.090	0.008	4.86	13.3	1.79
5/5/2015	0.011	0.003	5.17	8.8	0.57
5/19/2015	0.141	0.021	3.41	8.2	2.73
6/4/2015	2.590	0.717	2.72	NA	4.67
4/16/2016	0.073	0.023	7.54	9.2	2.78

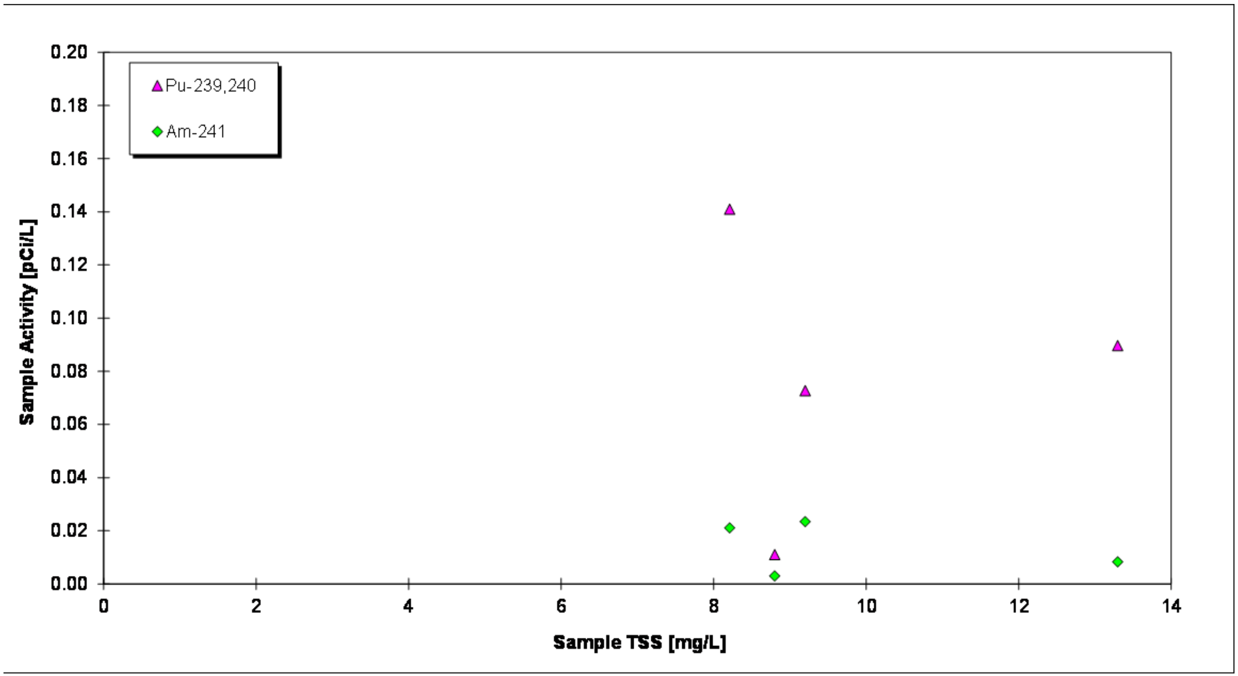
Notes:

[a] Sample includes significant quantities of water that flooded over the Woman Creek diversion into Pond C-2 when flows were minimal from the SID (see Figure 20).

[b] Sample includes significant quantities of water that flooded over the Woman Creek diversion into Pond C-2 when flows were also significant from the SID (see Figure 20).

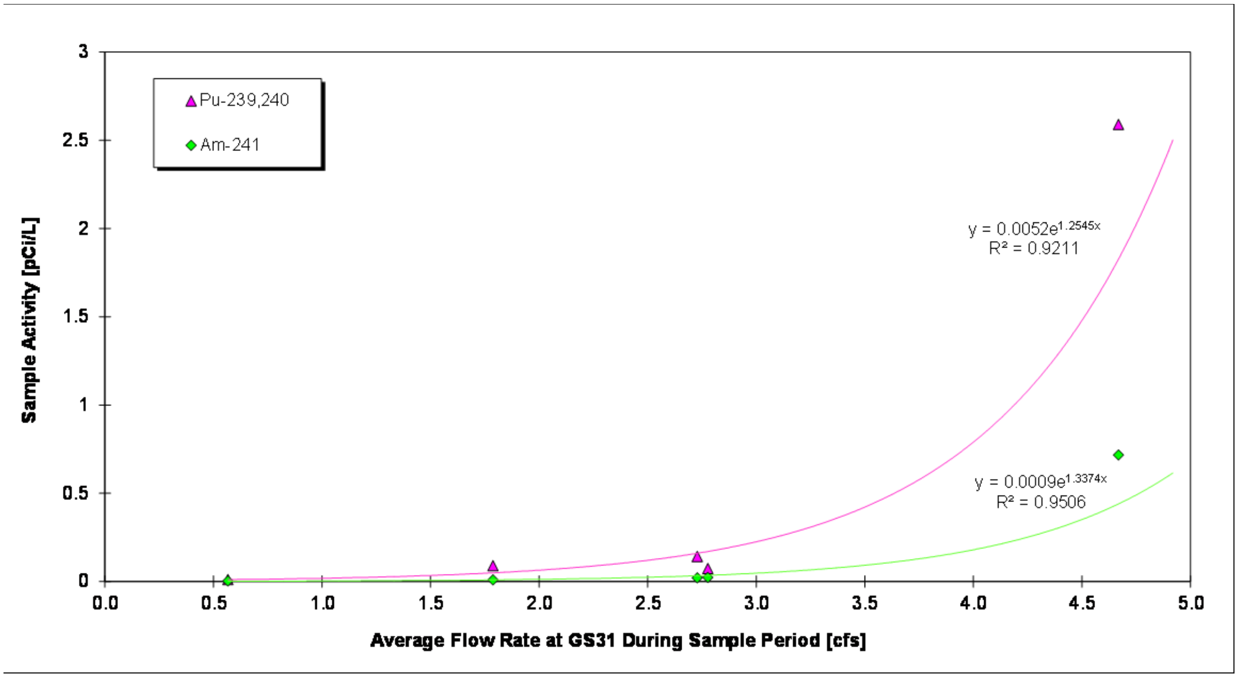
Abbreviations:

cfs = cubic feet per second
mg/L = milligrams per liter
µg/L = micrograms per liter



Abbreviation:
mg/L = milligrams per liter

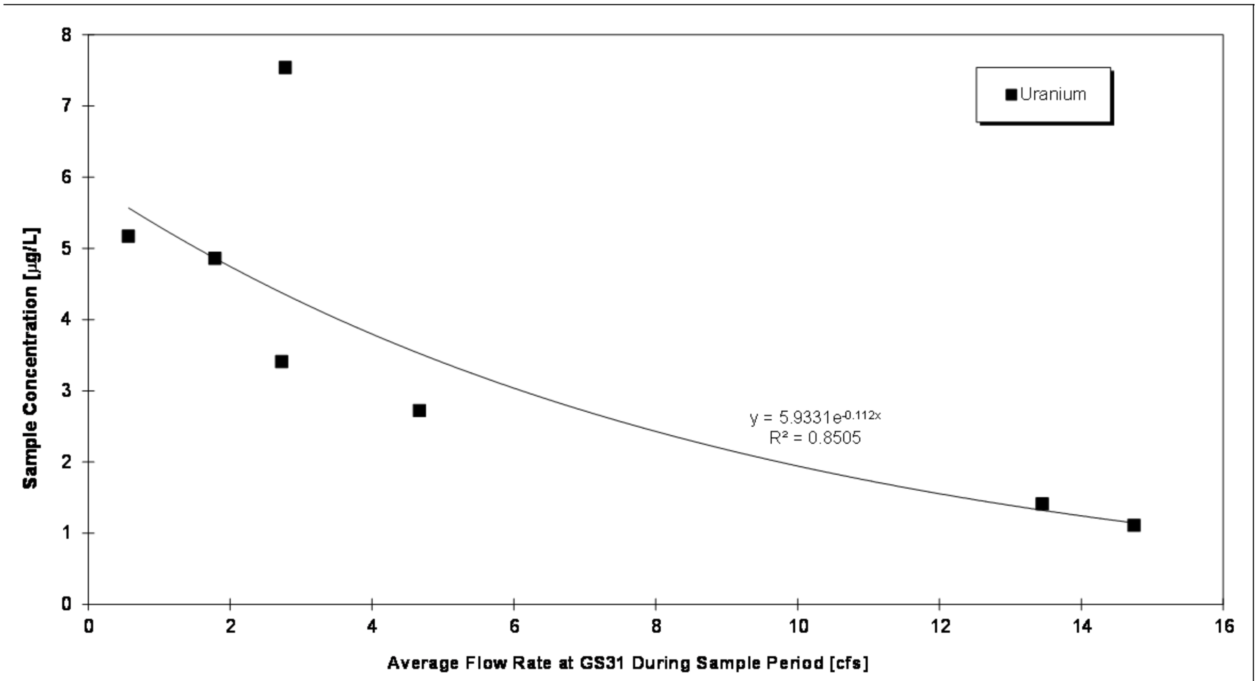
Figure 26. Plutonium and Americium Activity vs. Total Suspended Solids for GS31 Storm-Event Samples



Note:
The 2013 results are not shown since they were significantly diluted by Woman Creek water that flooded over the Woman Creek Diversion into Pond C-2.

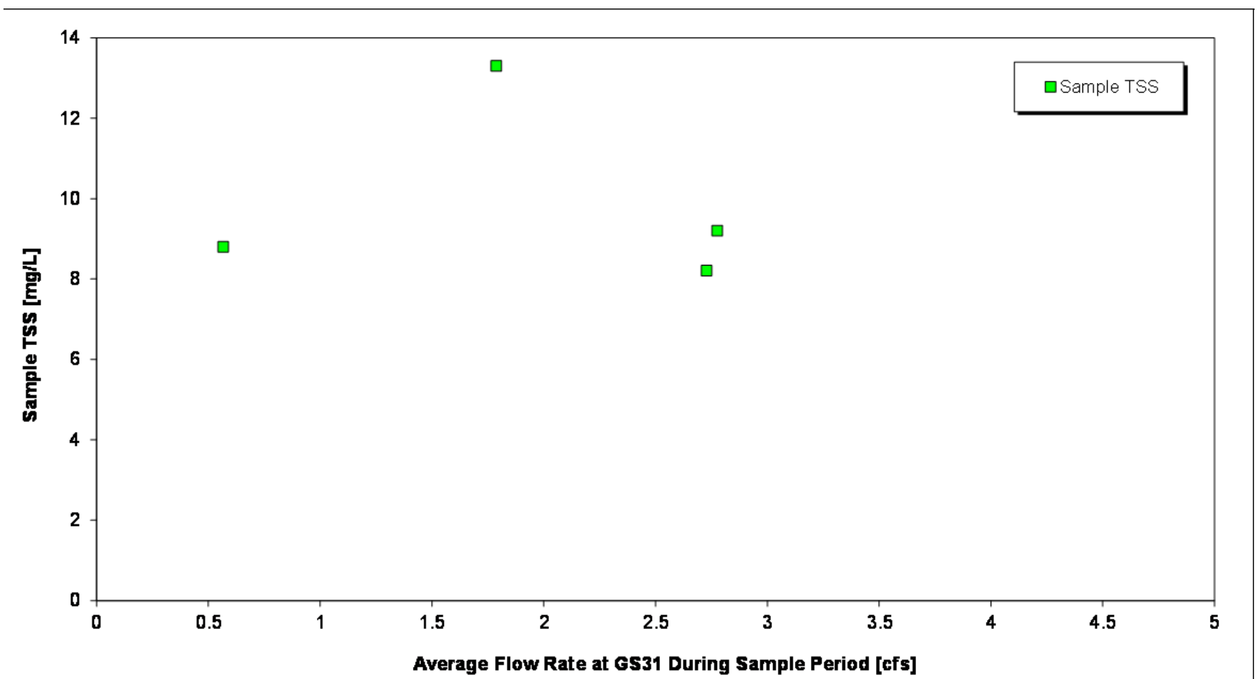
Abbreviation:
cfs = cubic feet per second

Figure 27. Plutonium and Americium Activity vs. Average Sample Flow Rate for GS31 Storm-Event Samples



Abbreviations:
cfs = cubic feet per second
µg/L = micrograms per liter

Figure 28. Uranium Concentration vs. Average Sample Flow Rate for GS31 Storm-Event Samples

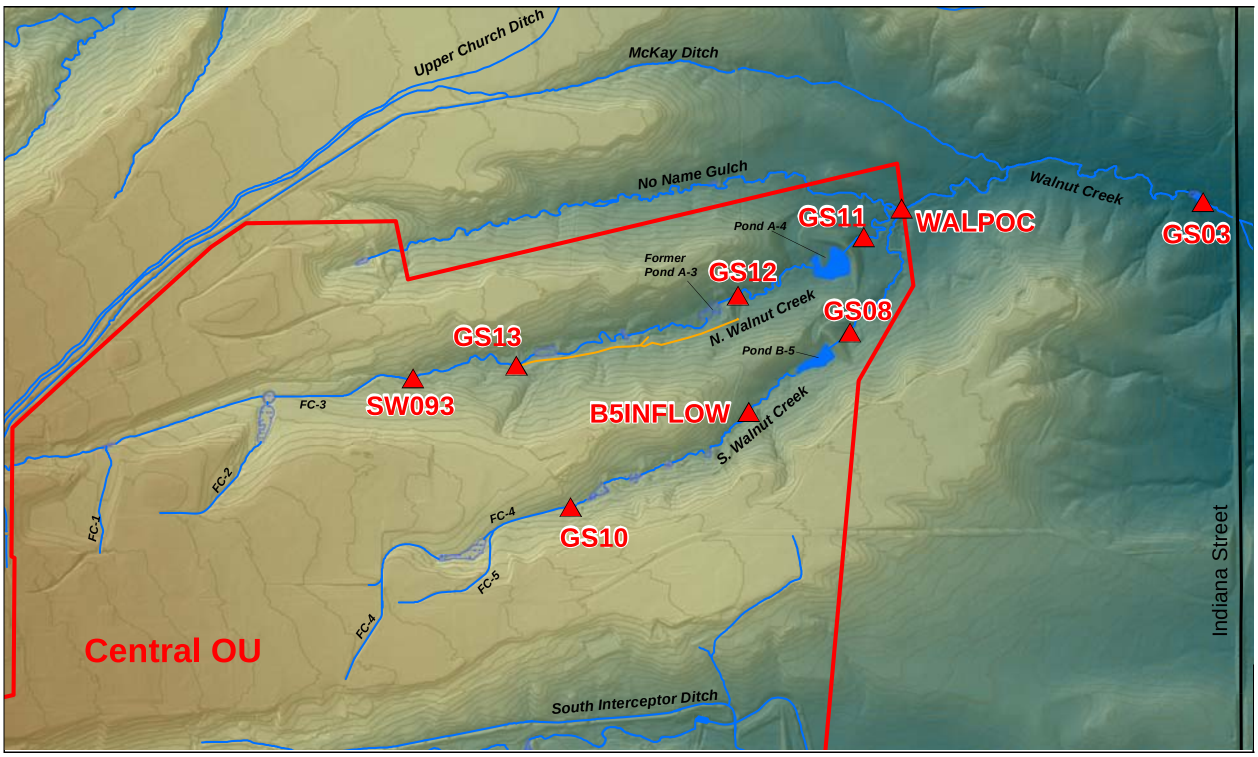


Abbreviations:
cfs = cubic feet per second;
mg/L = milligrams per liter

Figure 29. Total Suspended Solids vs. Average Sample Flow Rate for GS31 Storm-Event Samples

3.5 Continuous Flow-Paced Composite Sampling to Evaluate Uranium Transport

This monitoring objective is intended to evaluate the in-stream transport of uranium, specifically for Ponds A-4 and B-5, by assessing correlations, patterns, variability, and loading. The monitoring locations currently being used to support this objective are shown in Figure 30. Samples are collected as continuous flow-paced composites during all flow conditions. Sampling for this monitoring objective began on March 10, 2010, in North Walnut Creek and on June 16, 2010, in South Walnut Creek. Monitoring location WALPOC began operation on September 9, 2011. Monitoring at GS03 was discontinued on October 1, 2015. Therefore, this evaluation uses three time periods: March 10, 2010, to October 1, 2015; June 16, 2010, to October 1, 2015; and September 9, 2011, to the present.



Notes:
The orange line shows the location of the A-Series Bypass Pipeline. See text for additional information.
Monitoring at GS03 was discontinued on October 1, 2015.

Figure 30. Continuous Flow-Paced Composite Sampling Locations in Walnut Creek

Starting on October 13, 2011, water in North Walnut Creek was diverted around Pond A-3 and former Ponds A-1 and A-2 to support the Dam A-3 breach construction. This diverted water was routed through the A-Series Bypass Pipeline from GS13 to just below Pond A-3 (near GS12) until March 21, 2012. During this period, it is assumed that the quality and quantity of water when it entered the pipeline were the same as when it exited the pipeline.[5] Therefore, data

[5] This assumption was confirmed by grab samples taken at GS13 and A4INFLOW during use of the pipeline; A4INFLOW is located just upstream of Pond A-4.

collected at both GS13 and GS12 during this period have been combined to effectively summarize water quality *entering* Pond A-4, and not water quality *exiting* Pond A-3.

Table 5 through Table 7 show summary statistics for the three time periods described above. The data show long-term concentrations below the standard (16.8 micrograms per liter [µg/L]) at all locations. In addition, all locations show concentrations well below the 30 µg/L maximum contaminant level for uranium. Figure 31 uses proportional symbols to map the uranium concentrations since September 9, 2011 (see Table 7 for values).[6]

Table 5. Summary Statistics for Uranium Continuous Flow-Paced Composite Sampling: March 10, 2010, to October 1, 2015

South Walnut Creek

	Location Code	Volume-Weighted Average (µg/L)	Sample Count
Upstream	GS10*	13.7	104
Downstream	GS08	8.9	61

North Walnut Creek

Volume-Weighted Average (µg/L)	Sample Count	Location Code	
6.6	90	SW093*	**Upstream**
10.2	76	GS13*	🠗
12.8	80	GS12 (A-4 inflow)	🠗
9.2	53	GS11	**Downstream**

Walnut Creek

Location Code	Volume-Weighted Average	Sample Count
GS03	5.5	74

Notes:

* Data for GS10, SW093, and GS13 are currently acquired through the routine RFLMA-required monitoring at these locations.

Sample counts vary because composite sampling periods vary with water availability.

Summary includes all data available as of February 1, 2017; some recent data are not validated (i.e., are preliminary and subject to revision).

Monitoring at GS03 was discontinued on October 1, 2015.

[6] Due to the interruptions in automated sampling and the corresponding lack of analytical data for some periods during the September 2013 flood, for comparison purposes the start of the high runoff (generally late on September 11, 2013) through September 13, 2013, is not included in the evaluation in this section. Additionally, some data are estimated for the comparison herein; under normal RFLMA data evaluation protocols, these estimated data would not be included.

Table 6. Summary Statistics for Uranium Continuous Flow-Paced Composite Sampling: June 16, 2010, to October 1, 2015

South Walnut Creek

	Location Code	Volume-Weighted Average (μg/L)	Sample Count
Upstream	GS10*	13.7	95
↓	B5INFLOW	10.3	62
Downstream	GS08	8.8	51

North Walnut Creek

Volume-Weighted Average (μg/L)	Sample Count	Location Code	
6.5	77	SW093*	**Upstream**
10.5	65	GS13*	↓
13.1	67	GS12 (A-4 inflow)	↓
9.1	44	GS11	**Downstream**

Walnut Creek

Location Code	Volume-Weighted Average	Sample Count
GS03	5.4	58

Notes:

* Data for GS10, SW093, and GS13 are currently acquired through the routine RFLMA-required monitoring at these locations.

Sample counts vary because composite sampling periods vary with water availability.

Summary includes all data available as of February 1, 2017; some recent data are not validated (i.e., are preliminary and subject to revision).

Monitoring at GS03 was discontinued on October 1, 2015.

Table 7. Summary Statistics for Uranium Continuous Flow-Paced Composite Sampling: Starting September 9, 2011

South Walnut Creek

	Location Code	Volume-Weighted Average (μg/L)	Sample Count
Upstream	GS10*	13.1	97
↓	B5INFLOW	10.7	58
Downstream	GS08	9.2	59

North Walnut Creek

Volume-Weighted Average (μg/L)	Sample Count	Location Code	
7.0	73	SW093*	**Upstream**
10.1	56	GS13*	↓
13.4	59	GS12	↓
9.8	49	GS11	**Downstream**

Walnut Creek

Location Code	Volume-Weighted Average	Sample Count
WALPOC*	9.4	73

Notes:

* Data for GS10, SW093, GS13, and WALPOC are currently acquired through the routine RFLMA-required monitoring at these locations.

Sample counts vary because composite sampling periods vary with water availability.

Summary includes all data available as of February 1, 2017; some recent data are not validated (i.e., are preliminary and subject to revision).

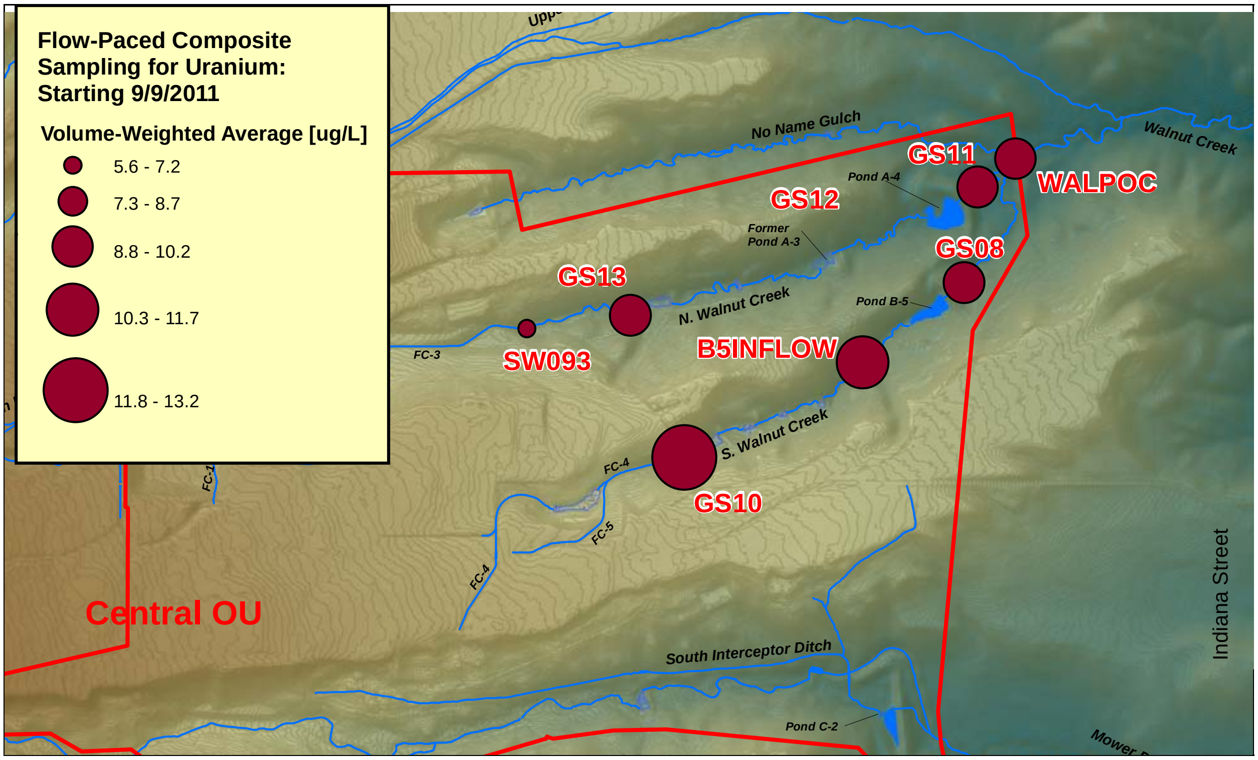


Figure 31. Map Showing Volume-Weighted Average Uranium Concentrations for Samples Collected Since September 9, 2011

Figure 32 through Figure 47 show plots of composite sample results and the 365-day volume-weighted rolling averages at each location.[7] The 365-day rolling average differs from the 12-month rolling average used for RFLMA evaluation in that the 365-day rolling average is calculated for every day, while the 12-month rolling average is calculated only on the last day of each month. The plots also show the corresponding hydrograph at each location showing the mean daily flow in cubic feet per second (cfs). The plots clearly show the significant variability in sample results. In general, the higher concentrations are during periods of baseflow with very little runoff (i.e., winter) and during periods when the natural geochemistry is more favorable for uranium transport.

As mentioned earlier, an extensive geochemistry study has been completed that examines the transport mechanisms associated with uranium and nitrate at the Site and the effects of the September 2013 flood. The report can be found at:
http://www.lm.doe.gov/Rocky_Flats/RFS_Evaluation_of_Water_Quality_Variability_April_2015.pdf.

[7] The RFLMA standards shown on these plots are for reference only. The RFLMA-required evaluation is location-specific (i.e., POCs, POEs) and is not part of this AMP report. Evaluation of sampling results as required by RFLMA is routinely presented in other reports in accordance with the RFLMA reporting requirements.

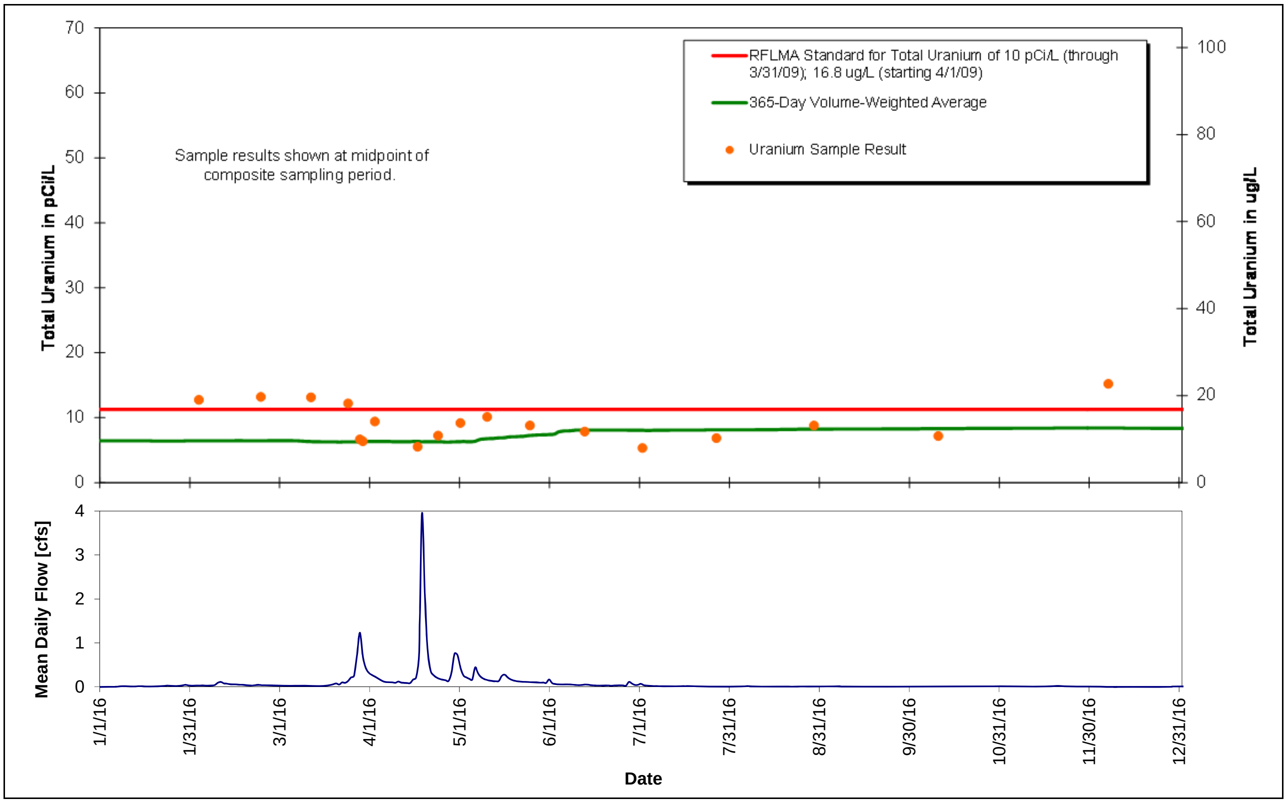


Figure 32. Composite Sample Uranium Results and Rolling 365-Day Averages at GS10: CY 2016

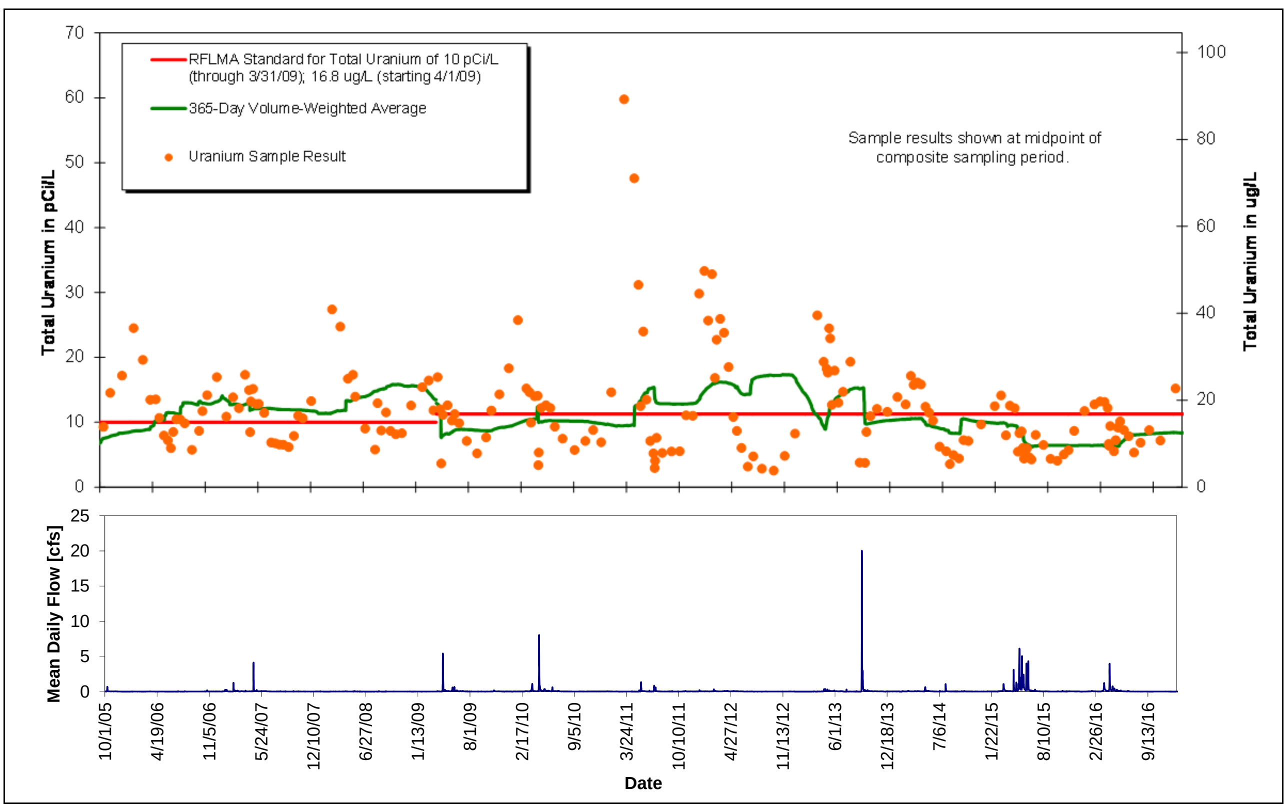
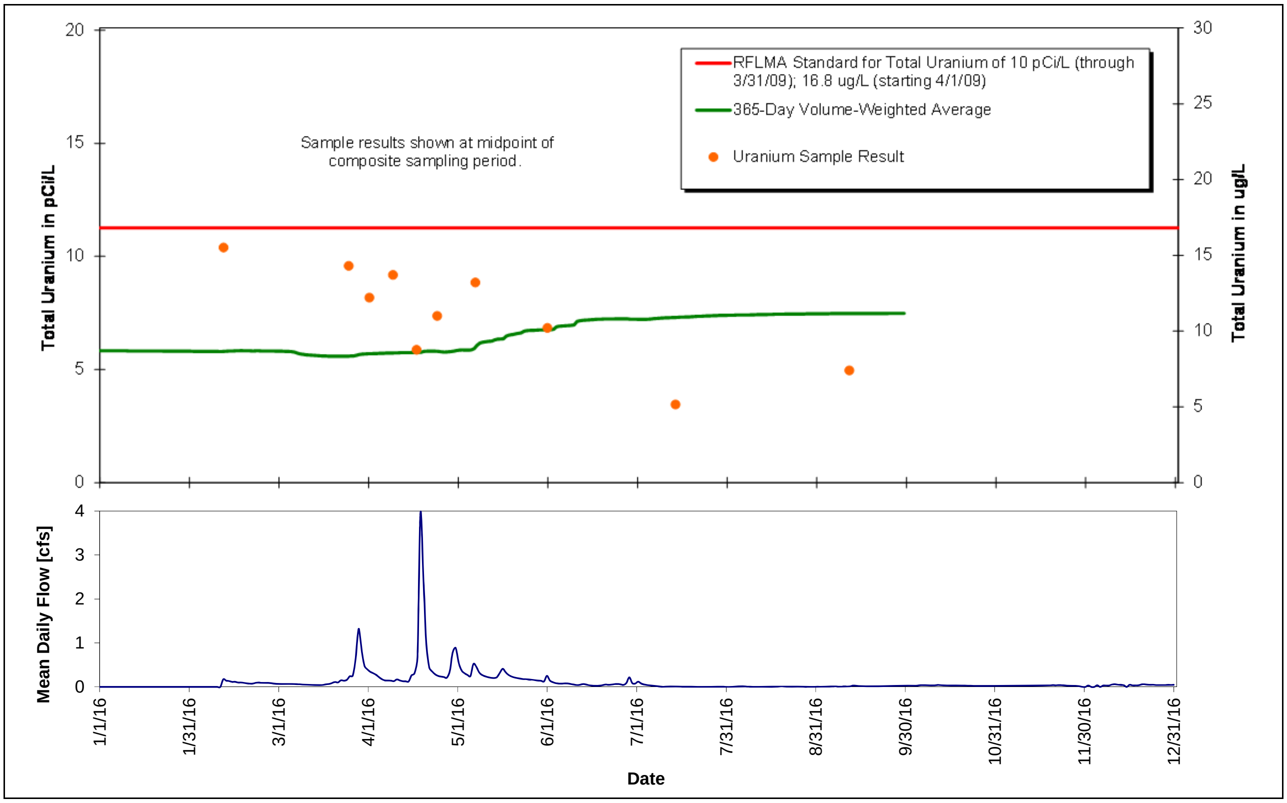
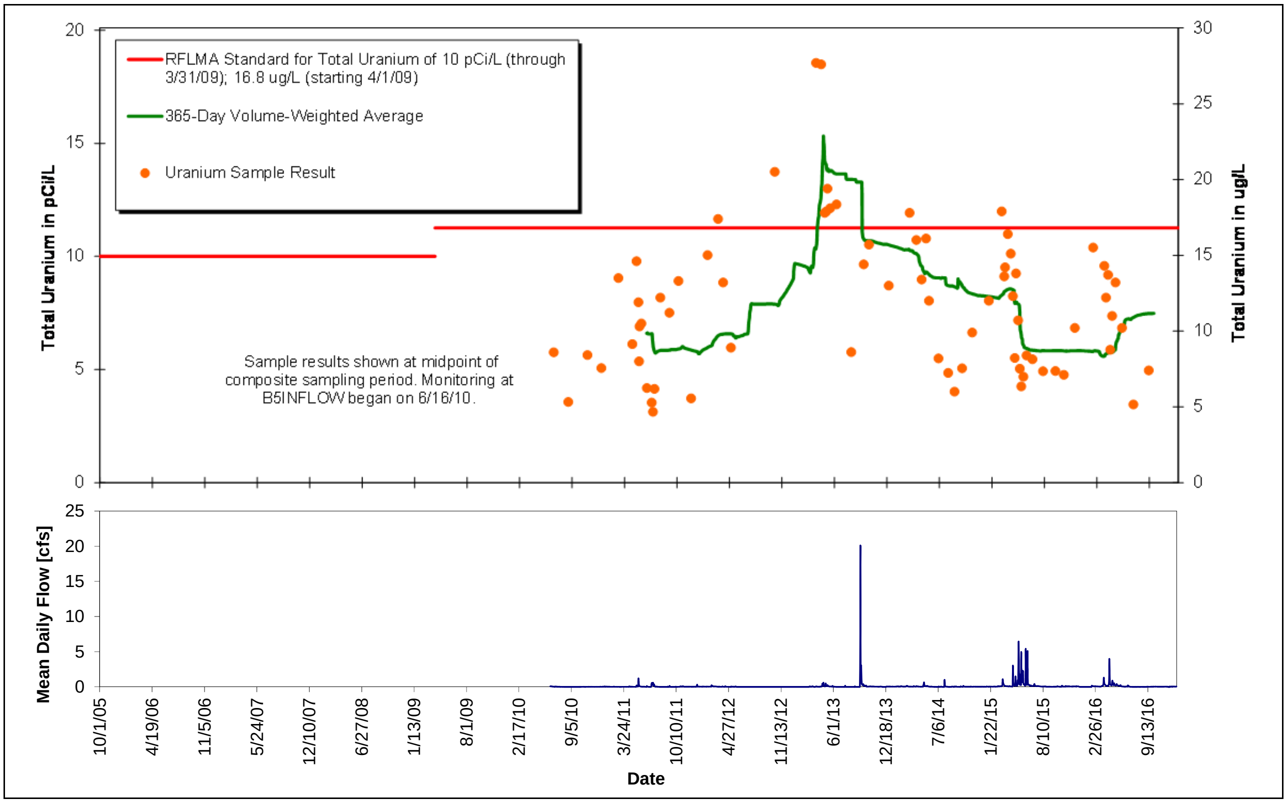


Figure 33. Composite Sample Uranium Results and Rolling 365-Day Averages at GS10: Post-Closure



Note:
Results for the composite sample for the period October 12, 2106, to January 19, 2017, are pending.

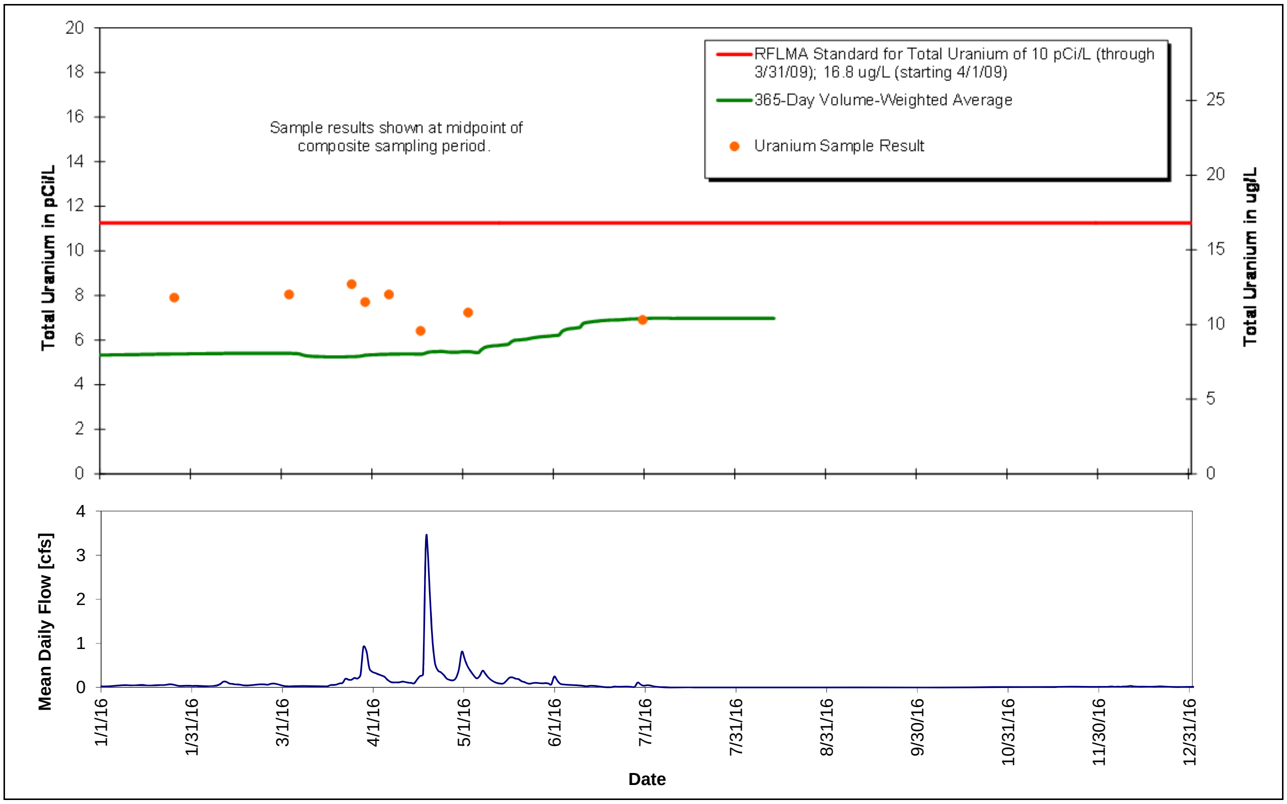
Figure 34. Composite Sample Uranium Results and Rolling 365-Day Averages at B5INFLOW: CY 2016



Note:

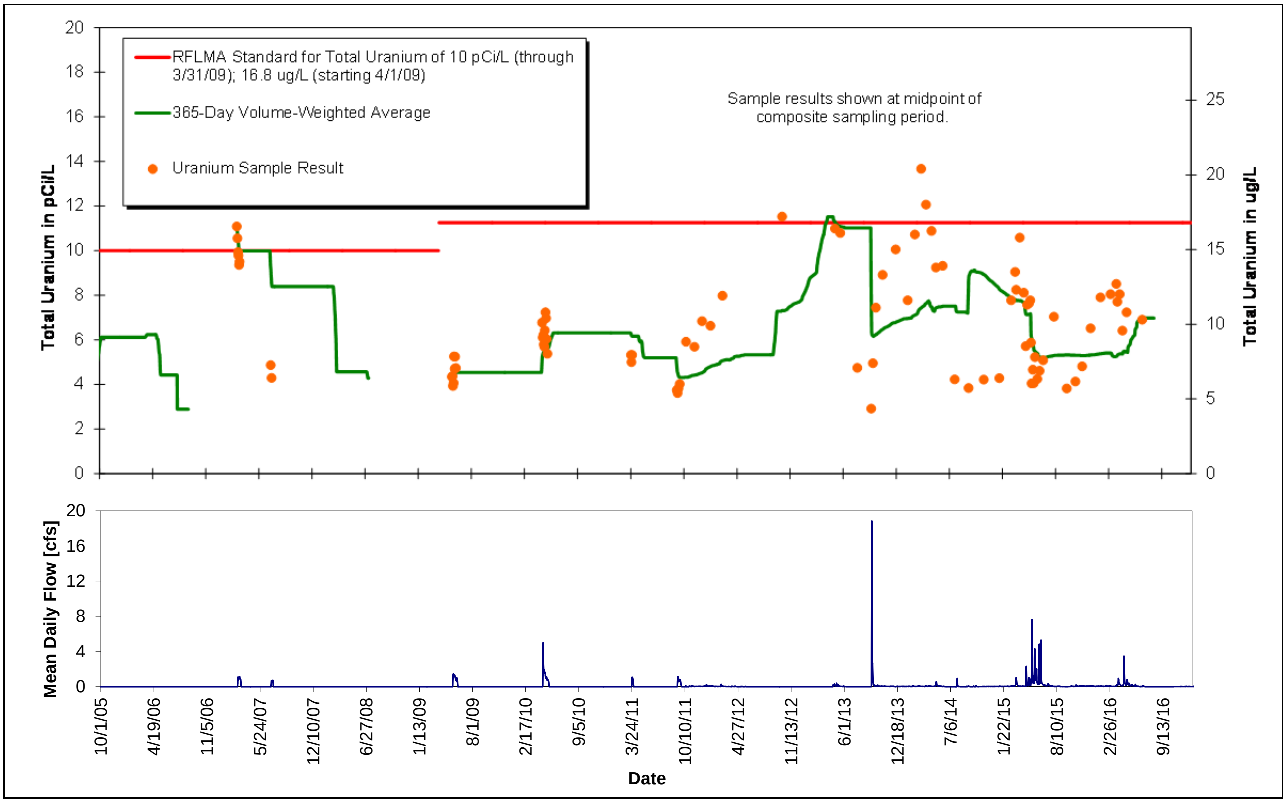
Results for the composite sample for the period October 12, 2016, to January 19, 2017, are pending.

Figure 35. Composite Sample Uranium Results and Rolling 365-Day Averages at B5INFLOW: Post-Closure



Note:
Results for the composite sample for the period August 15, 2016, to January 8, 2017, are pending.

Figure 36. Composite Sample Uranium Results and Rolling 365-Day Averages at GS08: CY 2016



Note:
Results for the composite sample for the period August 15, 2016, to January 8, 2017, are pending.

Figure 37. Composite Sample Uranium Results and Rolling 365-Day Averages at GS08: Post-Closure

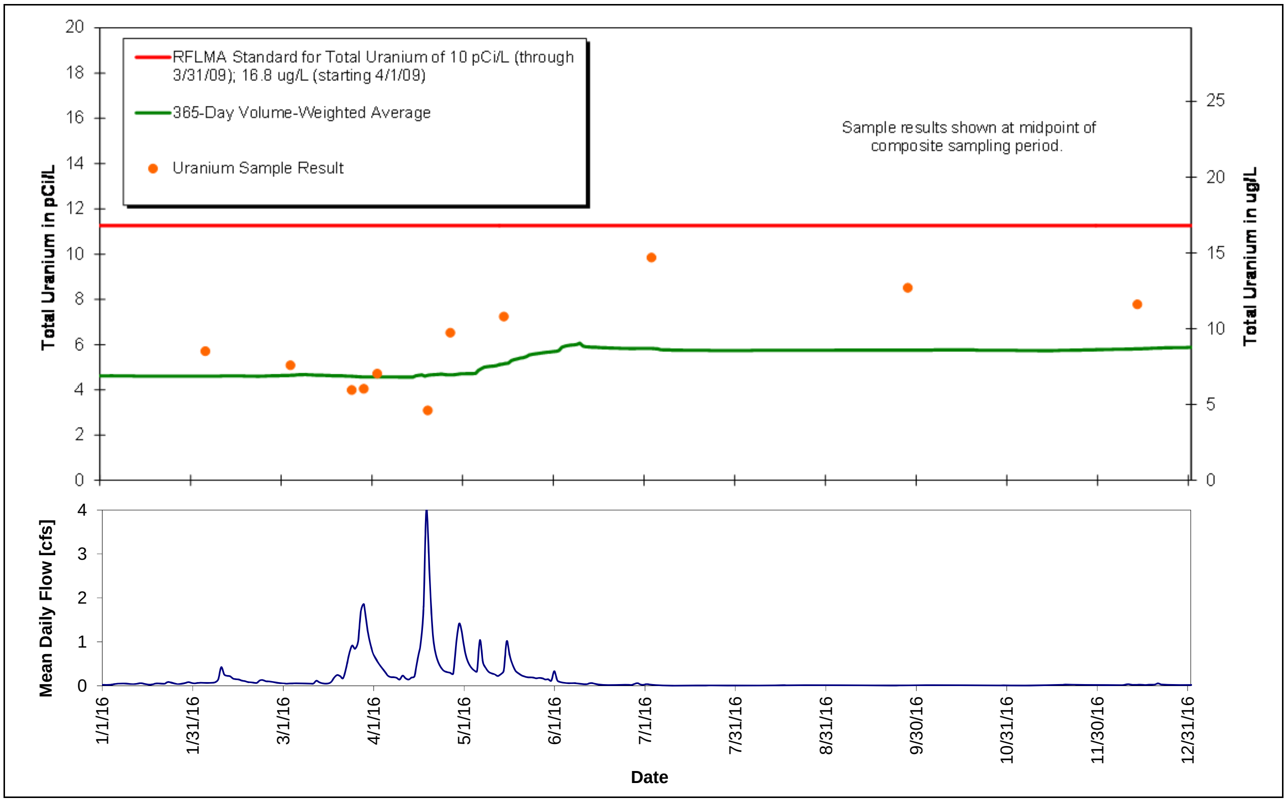


Figure 38. Composite Sample Uranium Results and Rolling 365-Day Averages at SW093: CY 2016

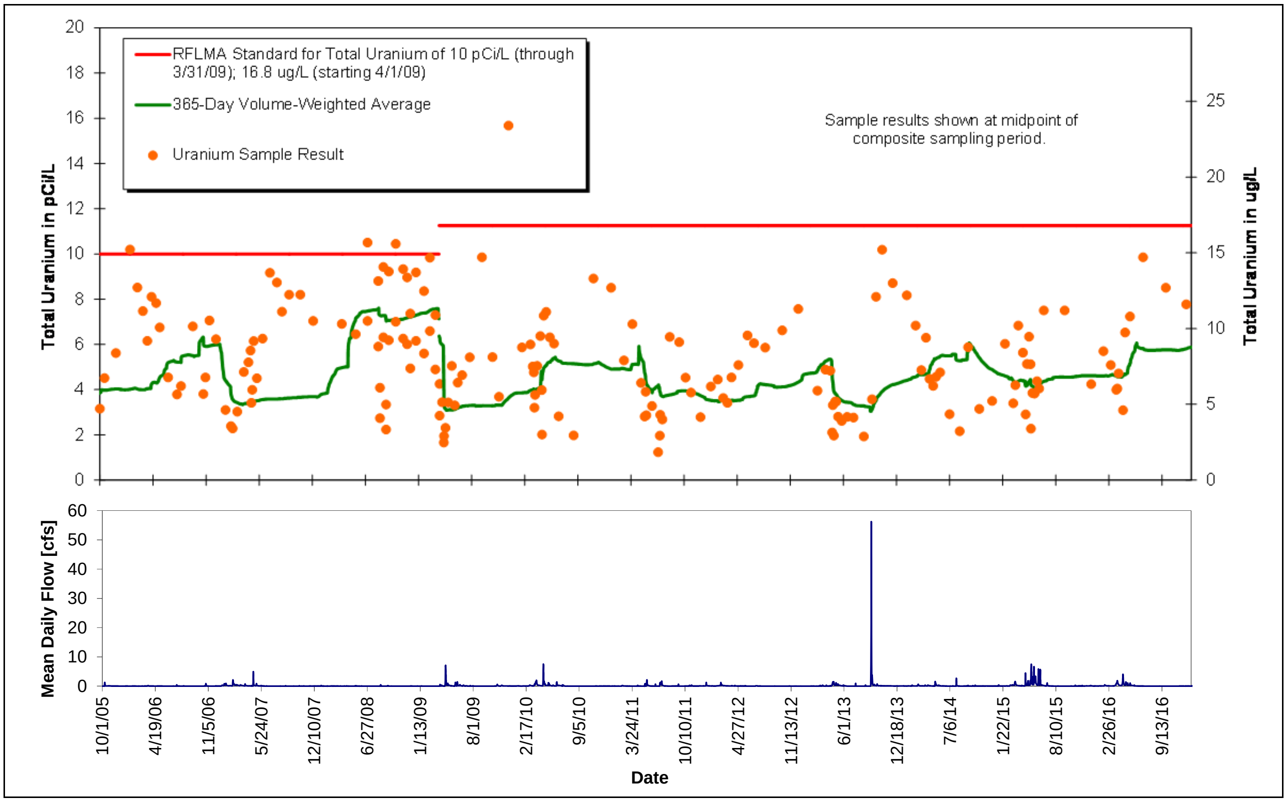


Figure 39. Composite Sample Uranium Results and Rolling 365-Day Averages at SW093: Post-Closure

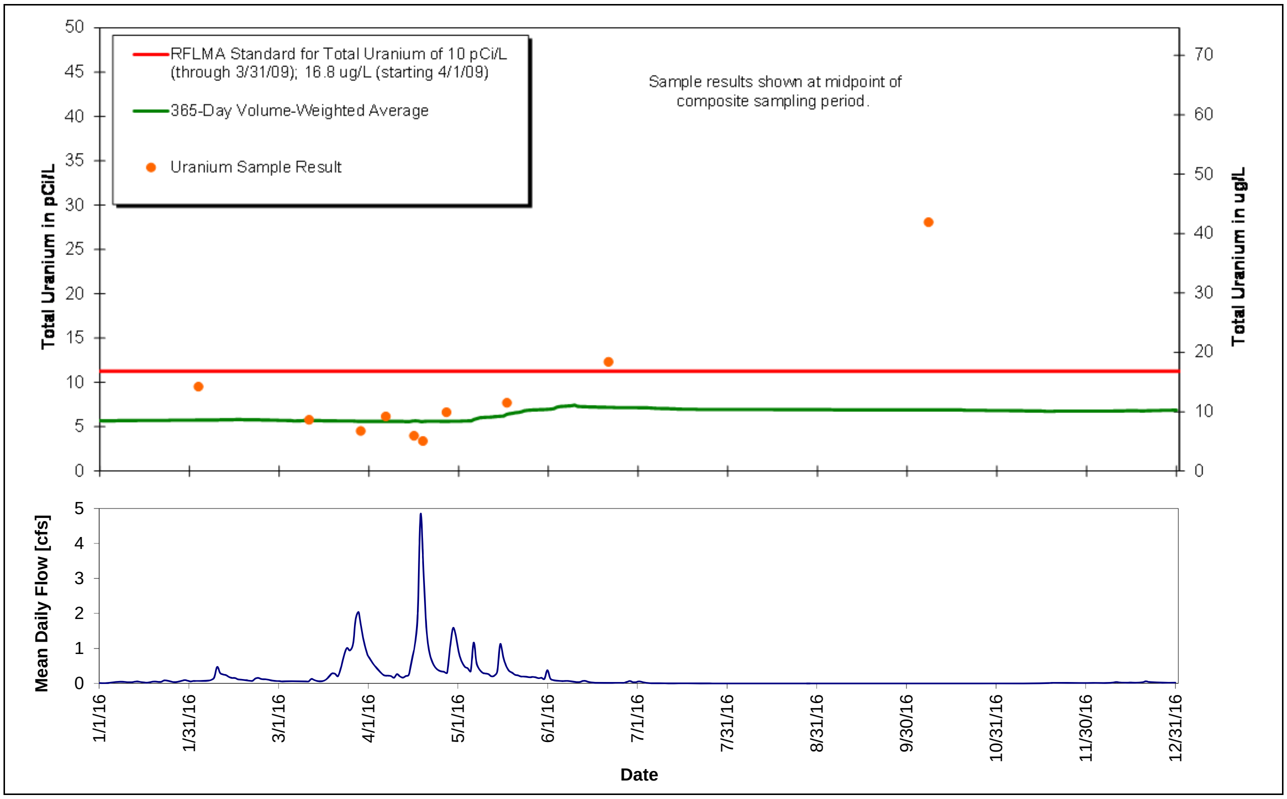


Figure 40. Composite Sample Uranium Results and Rolling 365-Day Averages at GS13: CY 2016

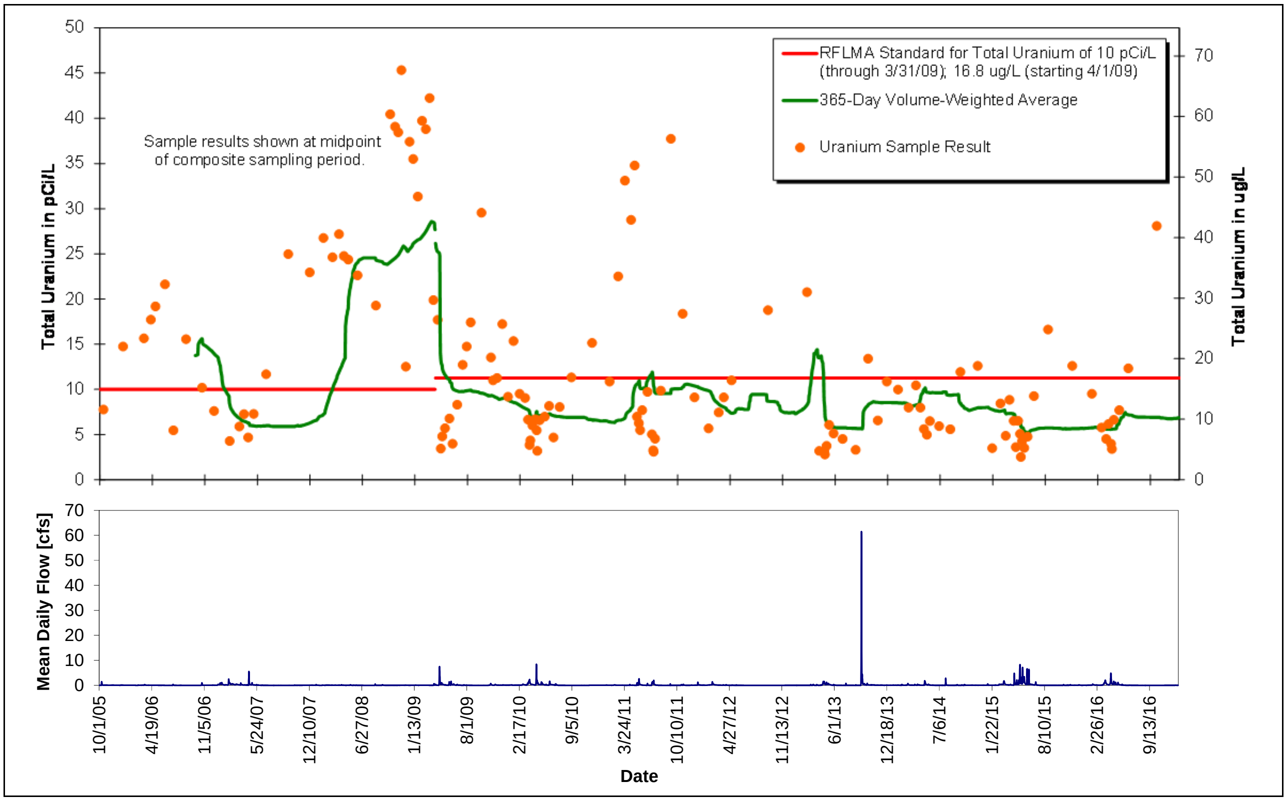


Figure 41. Composite Sample Uranium Results and Rolling 365-Day Averages at GS13: Post-Closure

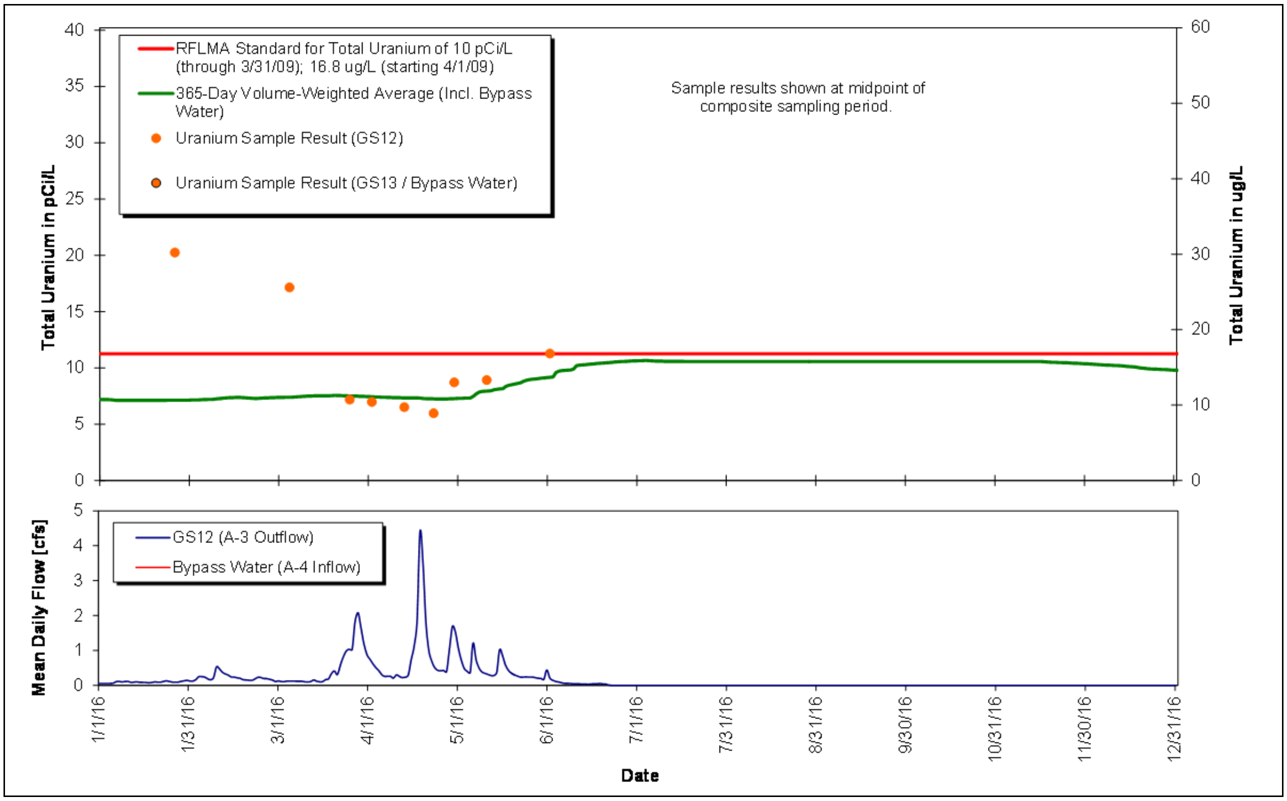


Figure 42. Composite Sample Uranium Results and Rolling 365-Day Averages at GS12 (A-4 Inflow): CY 2016

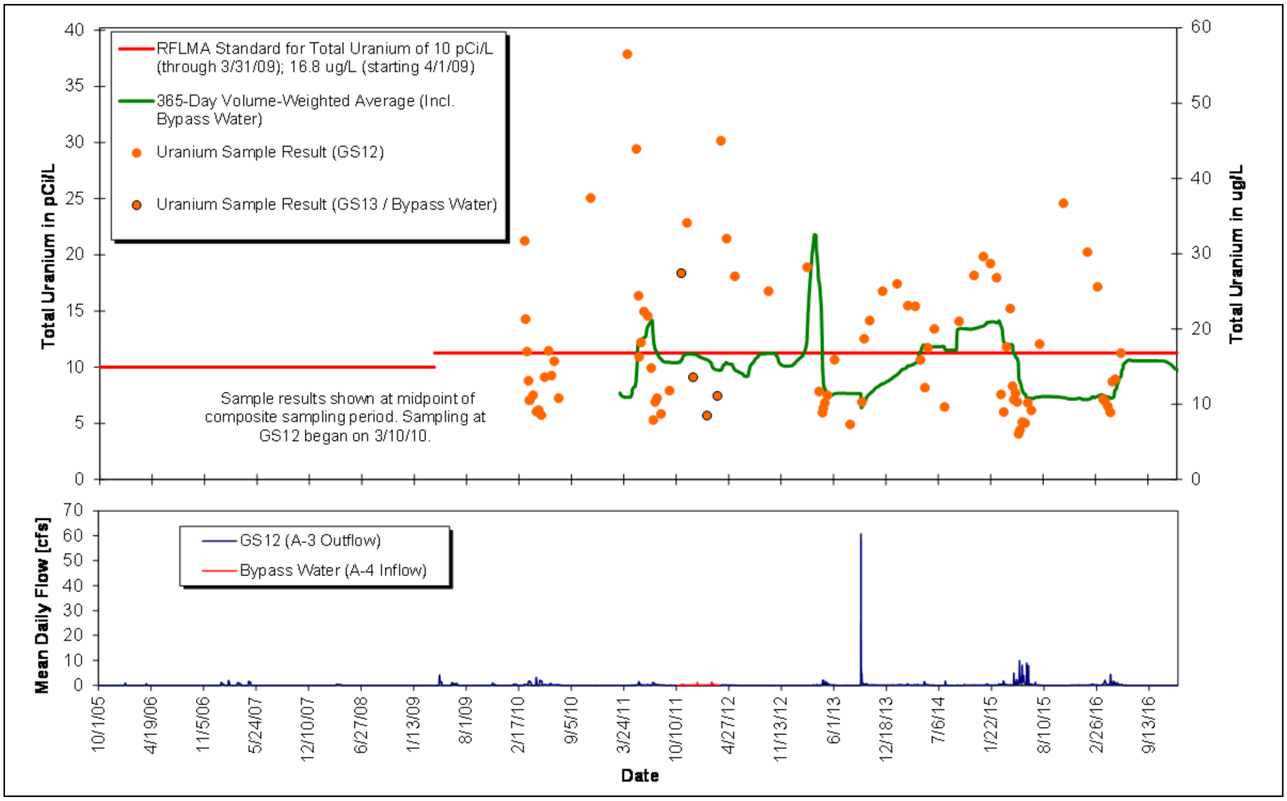
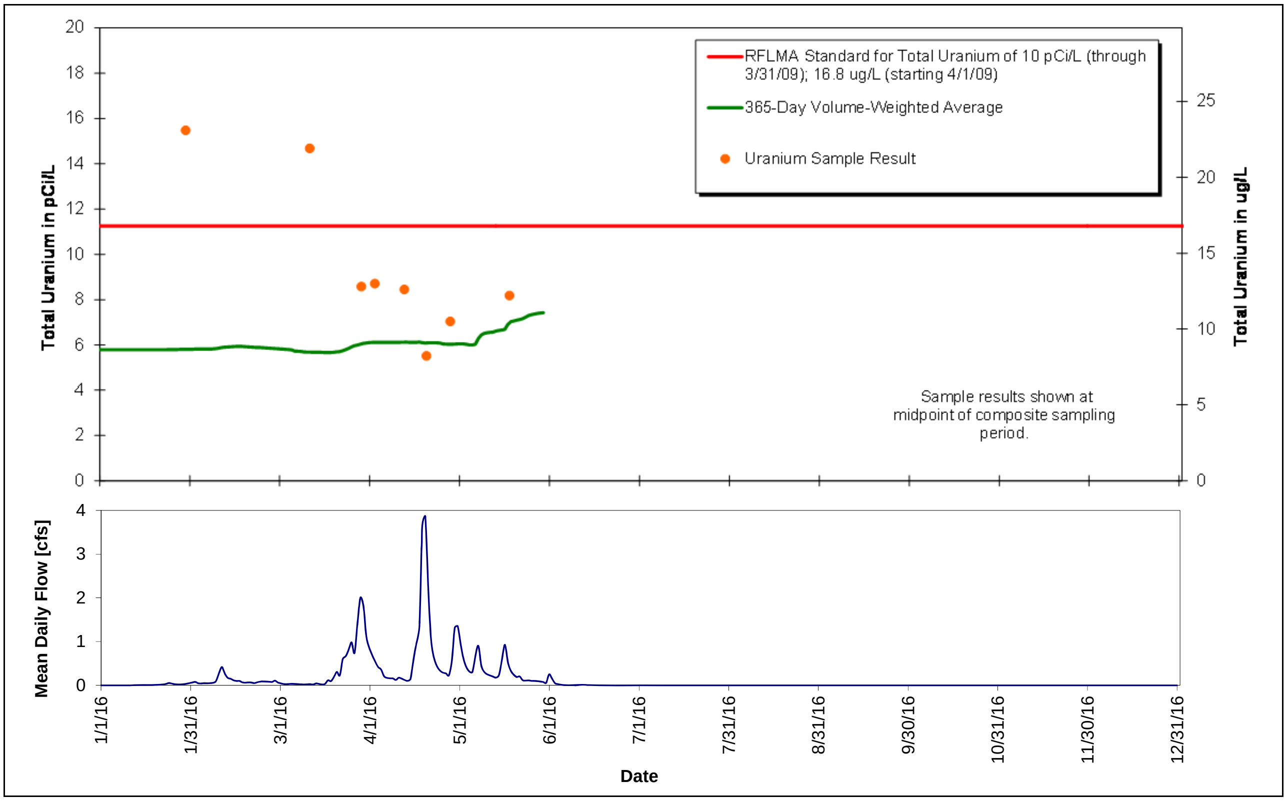


Figure 43. Composite Sample Uranium Results and Rolling 365-Day Averages at GS12 (A-4 Inflow): Post-Closure



Note:
The composite sample started on May, 31, 2016, is still in progress.

Figure 44. Composite Sample Uranium Results and Rolling 365-Day Averages at GS11: CY 2016

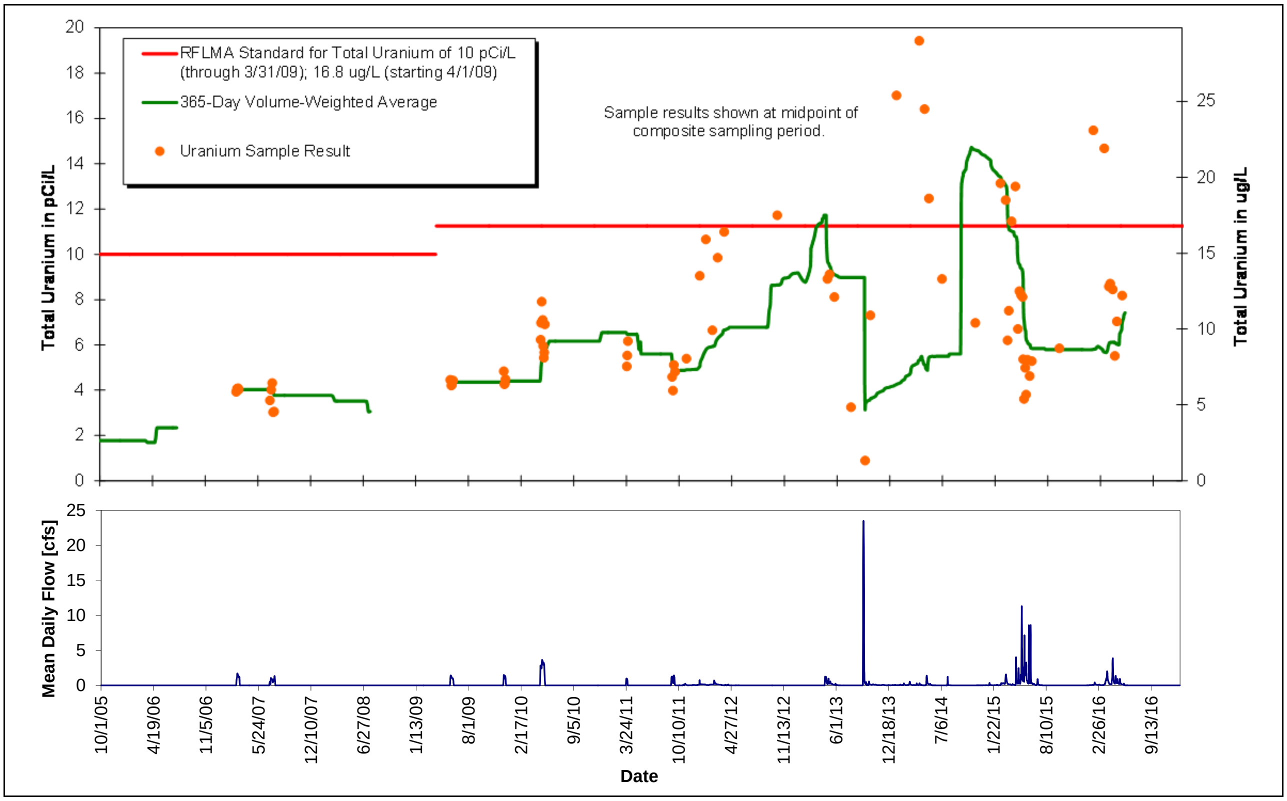


Figure 45. Composite Sample Uranium Results and Rolling 365-Day Averages at GS11: Post-Closure

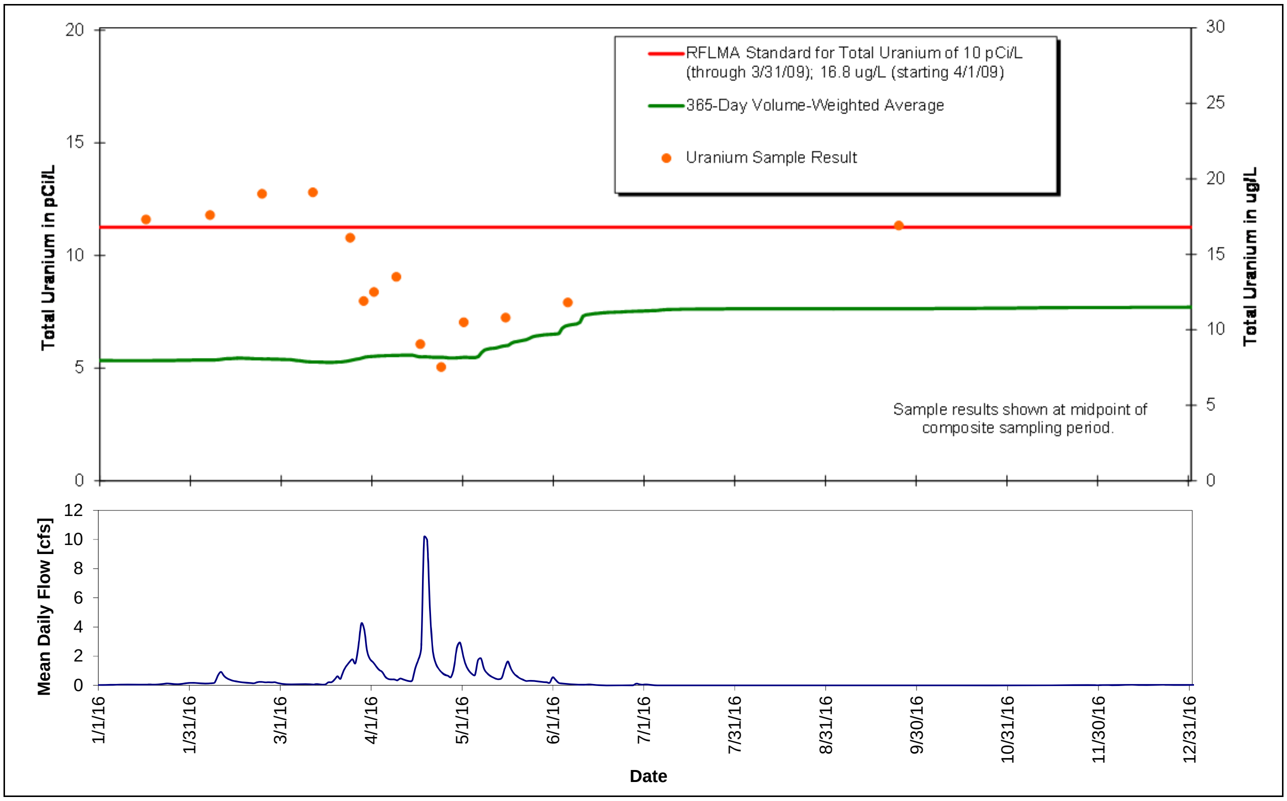


Figure 46. Composite Sample Uranium Results and Rolling 365-Day Averages at WALPOC: CY 2016

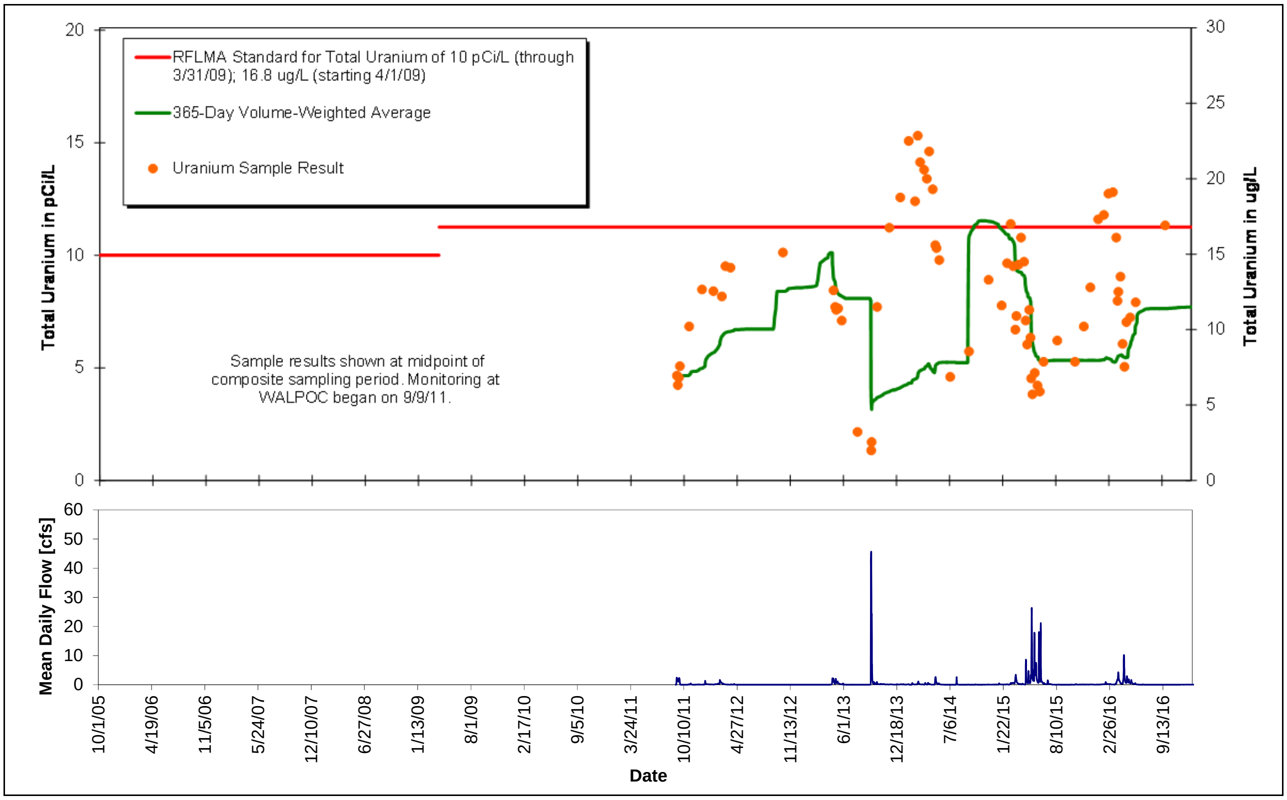
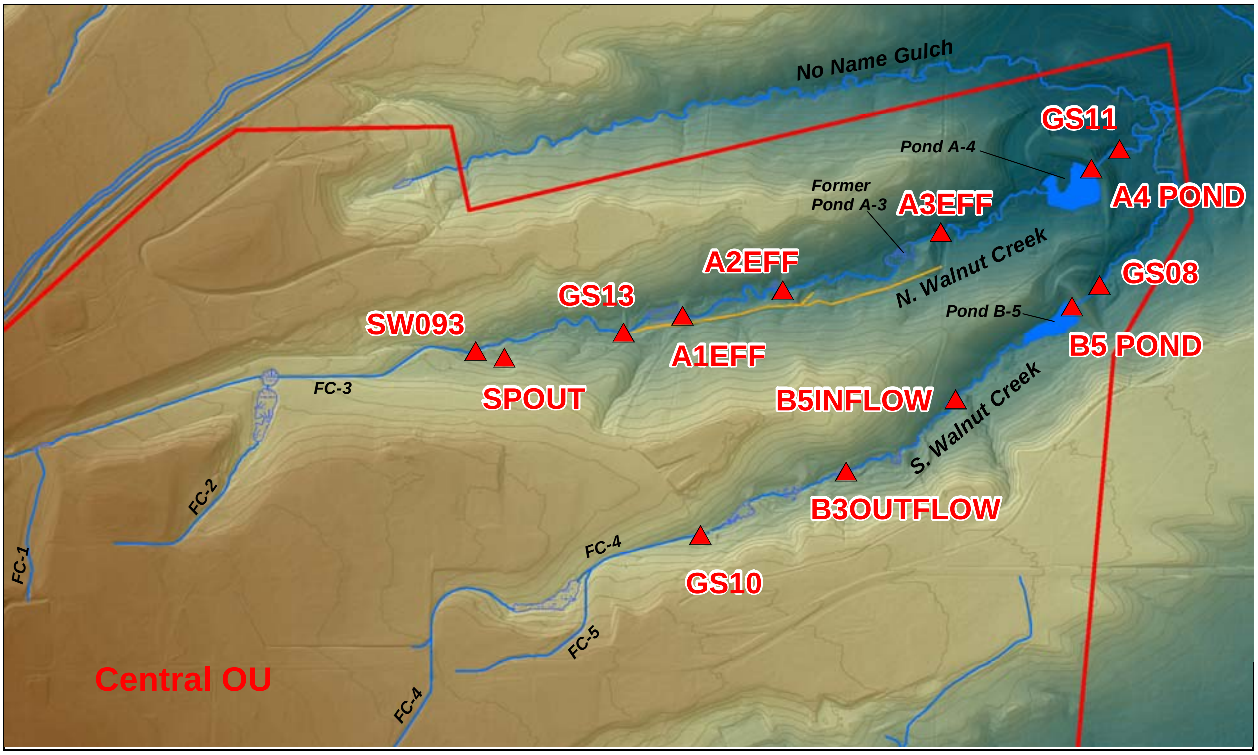


Figure 47. Composite Sample Uranium Results and Rolling 365-Day Averages at WALPOC: Post-Closure

3.6 Grab Sampling for Uranium in North and South Walnut Creeks

This monitoring objective is primarily intended to evaluate the transport of uranium in North and South Walnut Creeks by assessing correlations, patterns, variability, and loading. This objective is also intended to help define the relative impacts of the Solar Ponds Plume Treatment System (SPPTS) contributions on surface water in North Walnut Creek. Samples are currently collected biweekly as grabs. Figure 48 presents the uranium grab sampling locations in North and South Walnut Creeks. Sampling for this monitoring objective at most locations began on January 27, 2010.



Notes:
The orange line shows the location of the A-Series Bypass Pipeline.
A3EFF is co-located with GS12 (A3EFF is the grab sampling location, while GS12 is the automated composite sampling location).

Figure 48. Uranium Grab Sampling Locations in North and South Walnut Creeks

Starting on October 13, 2011, water in North Walnut Creek was diverted around Pond A-3 and former Ponds A-1 and A-2 to support the Dam A-3 breach construction. This diverted water was routed through the A-Series Bypass Pipeline from GS13 to just below Pond A-3 (near A3EFF) until March 21, 2012. During this period, it is assumed that the quality and quantity of water when it entered the pipeline were the same as when it exited the pipeline.[8] Therefore, data collected at both GS13 and A3EFF during this period have been combined to effectively summarize water quality *entering* Pond A-4, and not water quality *exiting* Pond A-3.

Table 8 shows summary statistics for the uranium grab sampling in North and South Walnut Creeks. The grab sample results show even more variability than the flow-paced composite results, as expected. Grab samples are generally collected during fair-weather, baseflow periods when uranium is more likely to be present at higher concentrations. Continuous flow-paced composite sample results are a better representation of actual longer-term uranium concentrations; by design, automated composite sampling collects samples during all flow conditions, including intense, high-volume runoff periods when uranium concentrations are generally lower.

[8] This assumption has been confirmed by grab samples taken at GS13 and A4INFLOW; A4INFLOW is located just upstream of Pond A-4.

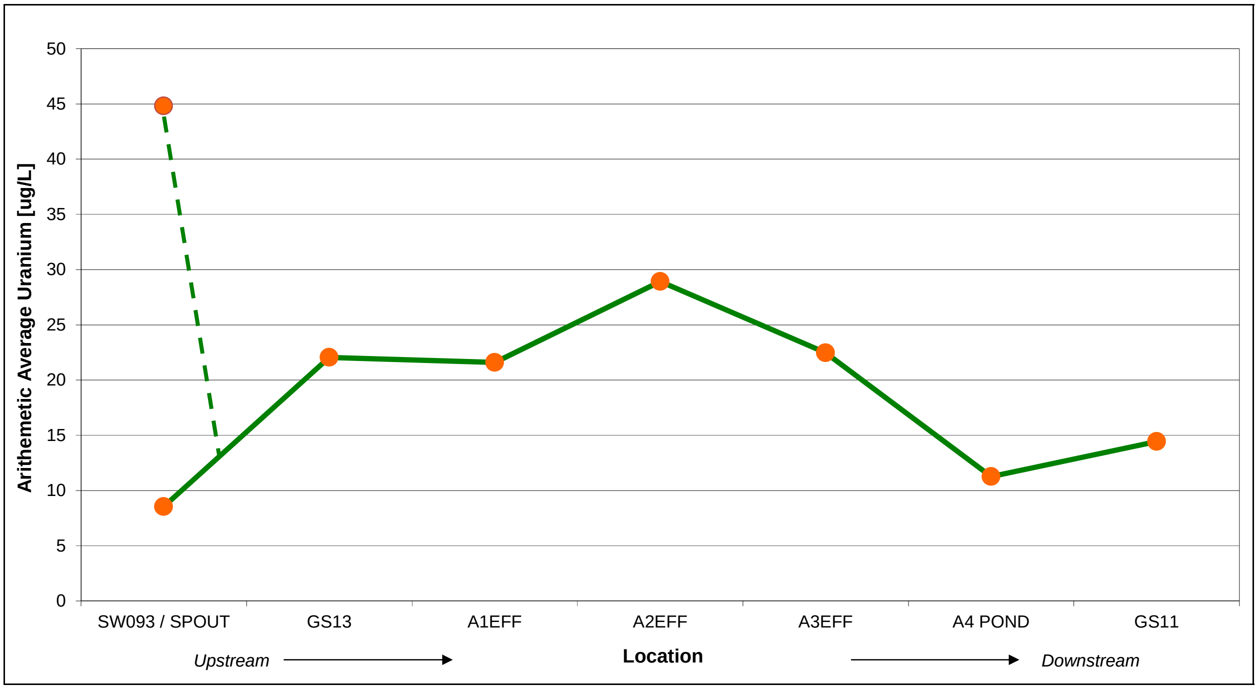
Table 8. Summary Statistics for Uranium Grab Sampling in North and South Walnut Creeks for the Period Starting January 27, 2010

North Walnut Creek		Uranium (ug/L)			
	Location Code	**Average**	**Sample Count**	**85th Percentile**	**50th Percentile**
Upstream	SW093	8.54	172	12.0	8.40
⬇	SPOUT*	44.8	173	62.0	44.0
⬇	GS13	22.0	147	36.1	18.0
⬇	A1EFF	21.6	111	30.0	17.0
⬇	A2EFF	28.9	106	42.5	24.0
⬇	A3EFF (A-4 inflow)	22.5	103	34.0	22.0
⬇	A4 POND	11.3	146	17.0	9.75
Downstream	GS11	14.4	19	21.8	13.0

South Walnut Creek		Uranium (ug/L)			
	Location Code	**Average**	**Sample Count**	**85th Percentile**	**50th Percentile**
Upstream	GS10	14.5	181	21.0	14.0
⬇	B3OUTFLOW	15.2	136	22.0	15.0
⬇	B5INFLOW	12.7	134	17.1	13.0
⬇	B5 POND	8.46	147	12.1	7.30
Downstream	GS08	8.54	35	11.9	7.80

Notes:
* SPOUT (SPPTS effluent) is not located in North Walnut Creek but flows into a below-ground discharge gallery south of North Walnut Creek between monitoring locations SW093 and GS13.
Sample counts vary because some locations are periodically dry.
Summary includes all data available as of February 1, 2017; some recent data are not validated (i.e., are preliminary and subject to revision).
Data at GS11 and GS08 start on April 30, 2015. AMP uranium grab sampling at A4 POND and B5 POND was discontinued on October 31, 2015.

Grab samples do, however, give a good portrayal of spatial water quality variation (i.e., upstream to downstream). Figure 49 and Figure 50 show the spatial variation (upstream to downstream) of average uranium concentrations in North and South Walnut Creeks. Both plots show noticeable variation. As mentioned earlier, an extensive geochemistry study has been completed that examines the transport mechanisms associated with uranium and nitrate at the Site and the effects of the September 2013 flood. The report is available at:
http://www.lm.doe.gov/Rocky_Flats/RFS_Evaluation_of_Water_Quality_Variability_April_2015.pdf.



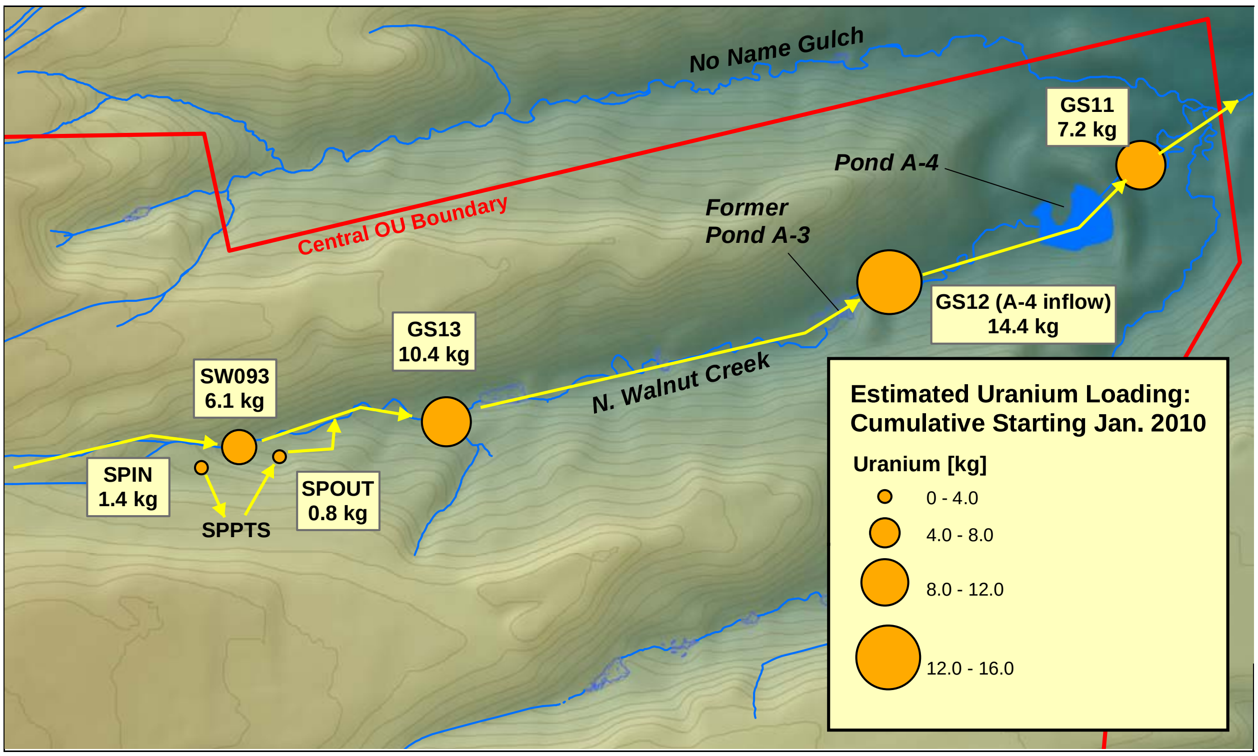
Notes:
SPOUT (SPPTS effluent) is not located in North Walnut Creek but flows into a below-ground discharge gallery south of North Walnut Creek between monitoring locations SW093 and GS13.
Data at GS11 start on April 30, 2015. AMP uranium grab sampling at A4 POND was discontinued on October 31, 2015.

Figure 49. Arithmetic Average Uranium Concentration at North Walnut Creek Grab Locations

Note:
Data at GS08 starts on April 30, 2015. AMP uranium grab sampling at B5 POND was discontinued on October 31, 2015.

Figure 50. Arithmetic Average Uranium Concentration at South Walnut Creek Grab Locations

The map in Figure 51 shows the estimated total uranium loads in North Walnut Creek since January 2010 (using all available sample results as of February 3, 2017).[9] While the SPPTS has removed approximately 40 percent of the uranium load in the water it collects, the loads at both the system influent (SPIN) and effluent (SPOUT) are small compared to the loads in North Walnut Creek. Even though the SPPTS concentrations are higher than the creek concentrations, the much larger creek flow volumes yield significantly larger loads. In fact, the load at SPOUT is estimated to be only 5 to 10 percent of the load at GS13.



Notes:
SPIN represents influent to the SPPTS, while SPOUT represents effluent.
Loads at SW093, GS13, GS12, and GS11 are calculated using results from flow-paced composites (see Section 3.5).
Loads at SPIN and SPOUT are calculated using results from grab sampling related to this AMP objective and other treatment system optimization efforts.
Arrows indicate general flow routing.

Abbreviation:
kg = kilograms

Figure 51. Map Showing Estimated Uranium Loads in North Walnut Creek: Since January 2010

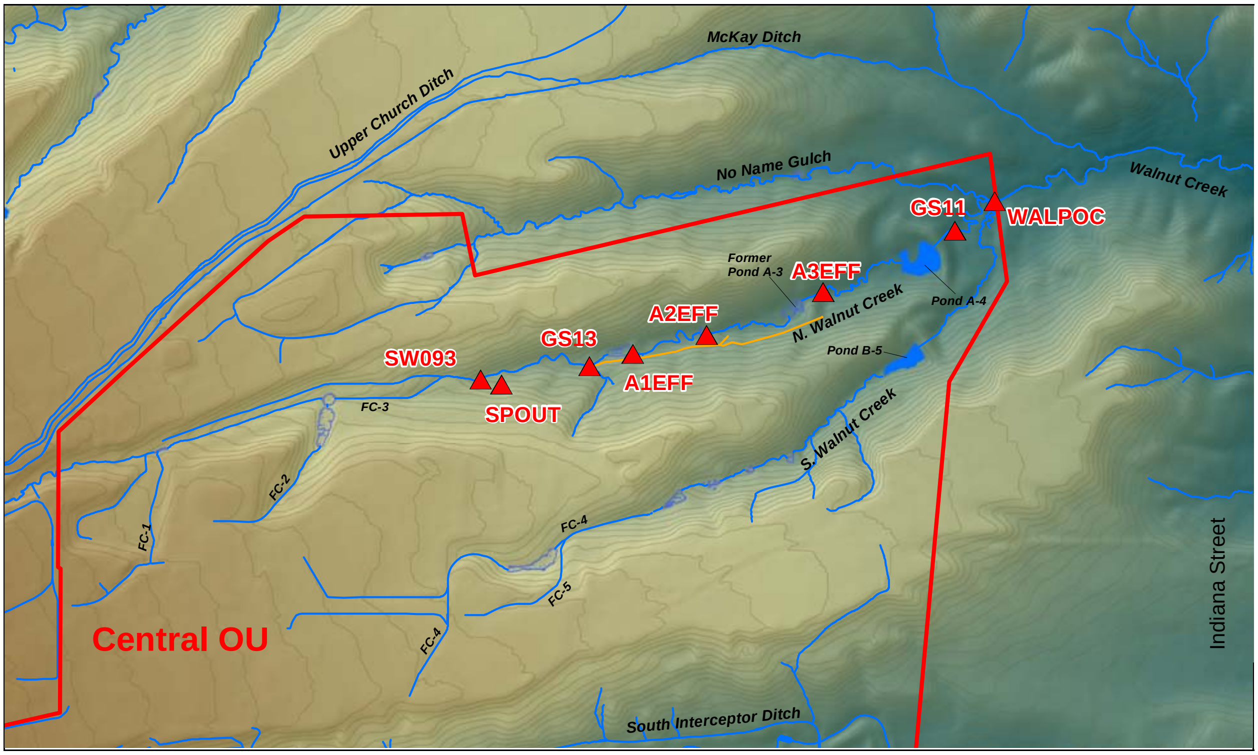
3.7 Grab Sampling for Nitrate + Nitrite as Nitrogen in Walnut Creek

This monitoring objective is primarily intended to evaluate the transport of nitrate in North Walnut and Walnut Creeks by assessing correlations, patterns, variability, and loading. This objective is also intended to help define the relative impacts of the SPPTS contributions on

[9] Loads are only calculated for locations with flow volume measurement.

surface water in North Walnut Creek. Samples are currently collected biweekly as grabs (Figure 52). Sampling for this monitoring objective at most locations began on January 27, 2010. WALPOC started operation on September 9, 2011.

This evaluation is performed for two different time periods in recognition of the WALPOC operational start date of September 9, 2011.



Notes:
The orange line shows the location of the A-Series Bypass Pipeline.
A3EFF is co-located with GS12 (A3EFF is the grab sampling location, while GS12 is the automated composite sampling location).

Figure 52. Nitrate + Nitrite as Nitrogen Grab Sampling Locations in North Walnut and Walnut Creeks

Starting on October 13, 2011, water in North Walnut Creek was diverted around Pond A-3 and former Ponds A-1 and A-2 to drain Pond A-3 in preparation for the Dam A-3 breach. This diverted water was routed through the A-Series Bypass Pipeline from GS13 to just below Pond A-3 (near A3EFF) until March 21, 2012. During this period, it is assumed that the quality and quantity of water when it entered the pipeline were the same as when it exited the pipeline.[10] Therefore, data collected at both GS13 and A3EFF during this period have been combined to effectively summarize water quality *entering* Pond A-4, and not water quality *exiting* Pond A-3.

[10] This assumption has been confirmed by grab samples taken at GS13 and A4INFLOW; A4INFLOW is located just upstream of Pond A-4.

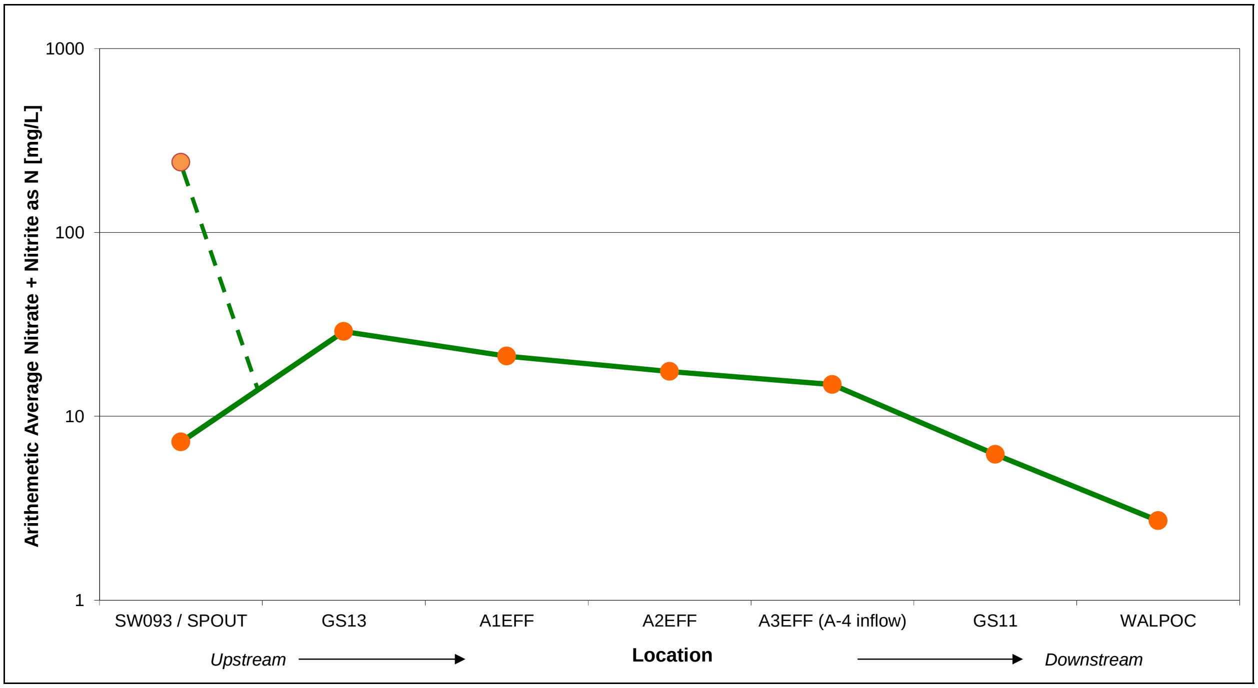
Table 9 shows summary statistics for the nitrate + nitrite as nitrogen (N) grab sampling in North Walnut and Walnut Creeks since January 27, 2010 (using all available sample results as of February 3, 2017). These grab samples are collected during fair-weather, baseflow periods when nitrate is more likely to be present at higher concentrations (due to the source being groundwater). These grab samples also give a good portrayal of spatial nitrate variation (i.e., upstream to downstream). Figure 53 shows the spatial variation (upstream to downstream) of average nitrate concentrations in North Walnut Creek. The plot shows a measurable increase between SW093 (upstream of Solar Ponds influence) and GS13 (downstream of Solar Ponds influence). However, farther downstream the natural reduction of nitrate through biological denitrification is apparent.

Table 9. Summary Statistics for Nitrate + Nitrite as N Grab Sampling in North Walnut and Walnut Creeks for the Period Starting January 27, 2010

North Walnut Creek		**Nitrate+Nitrite as N (mg/L)**			
	Location Code	**Average**	**Sample Count**	**85th Percentile**	**50th Percentile**
Upstream	SW093	7.26	168	13.0	3.40
⬇	SPOUT*	241	169	418	250
⬇	GS13	28.9	153	50.0	25.0
⬇	A1EFF	21.3	107	40.0	19.0
⬇	A2EFF	17.5	103	36.0	15.0
⬇	A3EFF (A-4 inflow)	14.9	102	30.7	12.0
⬇	GS11	6.20	72	10.1	6.70
Downstream	WALPOC	2.70	85	5.72	2.30

Notes:
* SPOUT (SPPTS effluent) is not located in North Walnut Creek but flows into a below-ground discharge gallery south of North Walnut Creek between monitoring locations SW093 and GS13.
Sample counts vary because some locations are periodically dry.
Summary includes all data available as of February 3, 2017; some recent data are not validated (i.e., are preliminary and subject to revision).
Data for the period May 1, 2010, to March 28, 2011, at GS11 include results from short-duration composite samples collected during batch-discharge operations.
Sampling at WALPOC began on September 12, 2011.

Abbreviation:
mg/L = milligrams per liter



Notes:
Concentrations shown on logarithmic scale.
SPOUT (SPPTS effluent) is not located in North Walnut Creek but flows into a below-ground discharge gallery south of North Walnut Creek between monitoring locations SW093 and GS13.
Summary includes all data available as of February 3, 2017; some recent data are not validated (i.e., are preliminary and subject to revision).
Data for the period May 1, 2010, to March 28, 2011, at GS11 include results from short-duration composite samples collected during batch-discharge pond operations.
Sampling at WALPOC began on September 12, 2011.

Abbreviation:
mg/L = milligrams per liter

Figure 53. Arithmetic Average Nitrate + Nitrite as N Concentration at North Walnut and Walnut Creek Grab Locations

Table 10 shows summary statistics for the nitrate + nitrite as N grab sampling in North Walnut and Walnut Creeks since September 1, 2011 (using all available sample results as of February 3, 2017). Figure 54 shows the spatial variation (upstream to downstream) of average nitrate concentrations in North Walnut Creek for this time period. As for the previously discussed time period, the plot shows a measurable increase between SW093 (upstream of Solar Ponds influence) and GS13 (downstream of Solar Ponds influence). However, farther downstream the natural reduction of nitrate through biological denitrification is generally apparent.

Table 10. Summary Statistics for Nitrate + Nitrite as N Grab Sampling in North Walnut and Walnut Creeks for the Period Starting September 1, 2011

North Walnut Creek		Nitrate+Nitrite as N (mg/L)			
	Location Code	Average	Sample Count	85th Percentile	50th Percentile
Upstream	SW093	7.45	127	13.7	2.90
⬇	SPOUT*	288	119	440	300
⬇	GS13	31.4	117	52.0	25.0
⬇	A1EFF	25.0	72	42.2	21.0
⬇	A2EFF	20.0	76	38.9	17.8
⬇	A3EFF (A-4 inflow)	17.9	79	32.3	16.0
⬇	GS11	6.68	59	10.8	7.15
Downstream	WALPOC	2.70	85	5.72	2.30

Notes:

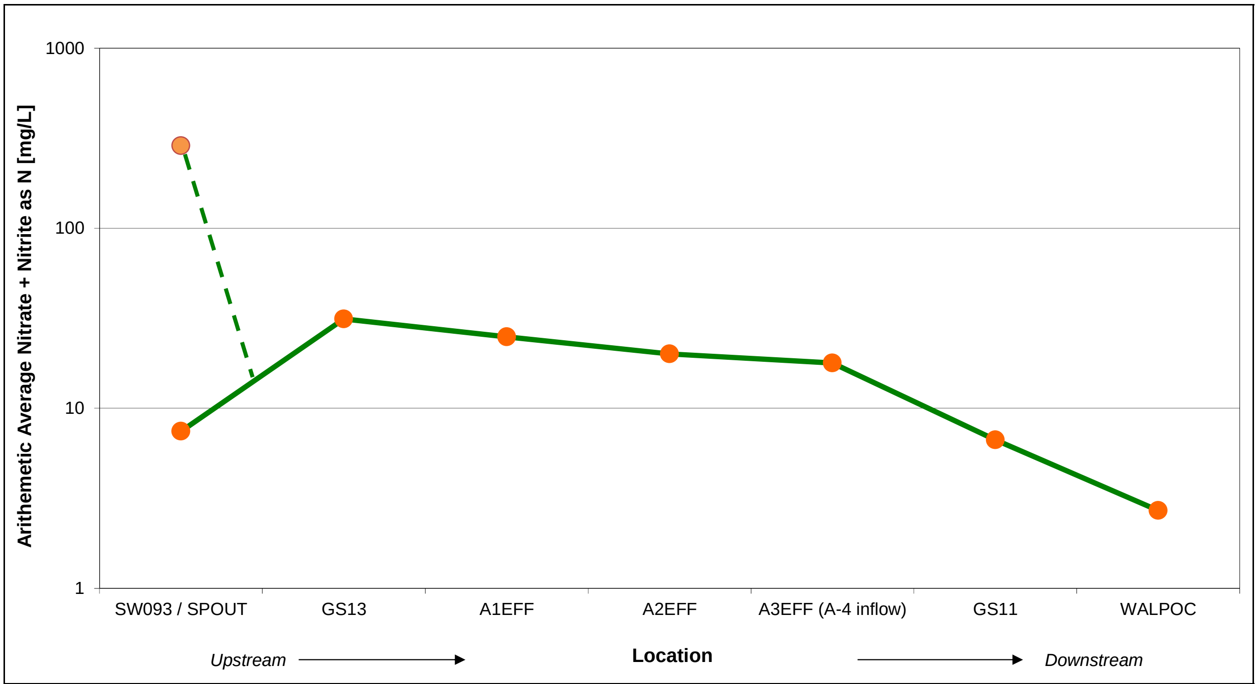
* SPOUT (SPPTS effluent) is not located in North Walnut Creek but flows into a below-ground discharge gallery south of North Walnut Creek between monitoring locations SW093 and GS13.

Sample counts vary because some locations are periodically dry.

Summary includes all data available as of February 3, 2017; some recent data are not validated (i.e., are preliminary and subject to revision).

Abbreviation:

mg/L = milligrams per liter



Notes:

Concentrations shown on logarithmic scale.

SPOUT (SPPTS effluent) is not located in North Walnut Creek but flows into a below-ground discharge gallery south of North Walnut Creek between monitoring locations SW093 and GS13.

Summary includes all data available as of February 3, 2017; some recent data are not validated (i.e., are preliminary and subject to revision).

Abbreviation:

mg/L = milligrams per liter

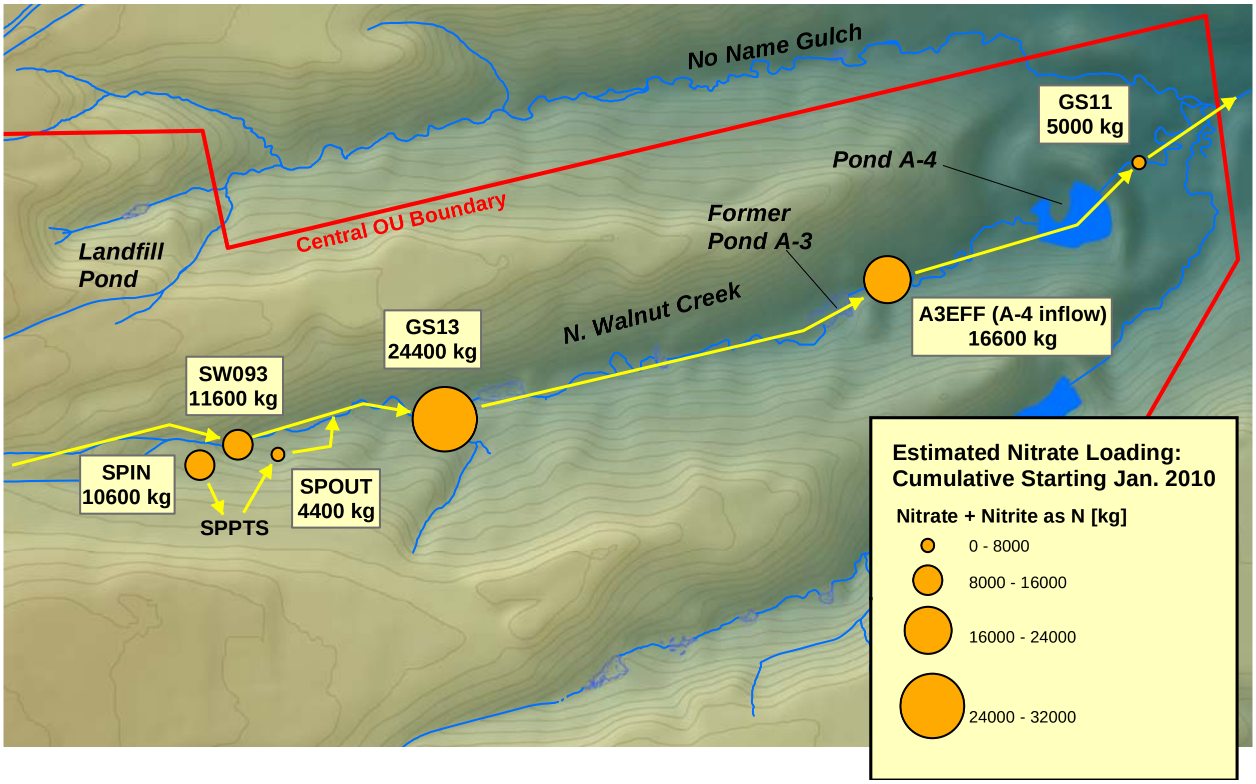
Figure 54. Arithmetic Average Nitrate + Nitrite as N Concentration at North Walnut and Walnut Creek Grab Locations

The map in Figure 55 shows the estimated total nitrate + nitrite as N loads in North Walnut Creek since January 2010 (using all available sample results as of February 3, 2016).[11] While the SPPTS has removed approximately 60 percent of the nitrate load in the water it collects, the loads at both the system influent (SPIN) and effluent (SPOUT) are only a portion of the loads in North Walnut Creek. As with uranium, the SPPTS nitrate concentrations are higher than the creek concentrations, but the much larger creek flow volumes yield significantly larger loads. In fact, the nitrate load at SPOUT is estimated to be only about 20 percent of the load at GS13.

However, it should be noted that the grab samples collected in the creek are likely biased toward higher concentrations since they are generally collected during baseflow periods. In other words, high-volume runoff events with relatively lower concentrations are underrepresented in the average creek concentrations calculated from grab sample results. Therefore, the amount of nitrate + nitrite as N at creek locations could be overestimated. Assuming this is the case, the relative contribution from the SPPTS to North Walnut Creek would be larger than currently estimated.

It should also be noted that the recent implementation of the full-scale pilot, biological denitrification "lagoon" at the SPPTS is removing all of the nitrate from the collected groundwater. Nitrate+nitrite as N concentrations in the SPPTS effluent (SPOUT) have been below detection limits for the last several months. Therefore, should the system continue to perform at this level, the SPPTS will be contributing no nitrate+nitrite to N. Walnut Creek going forward.

[11] Loads are calculated only for locations with flow volume measurement.



Notes:
SPIN represents influent to the SPPTS, while SPOUT represents effluent.
Loads at SW093, GS13, and GS11 are calculated using results from flow-paced composites (Section 3.5). Loads at A3EFF are calculated using grab sample results and flow measurement from GS12 (co-located with A3EFF). Loads at SPIN and SPOUT are calculated using results from grab sampling related to this AMP objective and other treatment system optimization efforts.
Arrows indicate general flow routing.

Abbreviation:
kg = kilograms

Figure 55. Map Showing Estimated Nitrate + Nitrite as N Loads in North Walnut Creek: Since January 2010

4.0 Analytical Data: Fourth Quarter CY 2016

Table 11, "Analytical Results for Water Samples," is available at the end of this report.

Table 12, "Water Sampling Events: Fourth Quarter CY 2016," is available at the end of this report.

5.0 References

DOE (U.S. Department of Energy), 2007. *Rocky Flats Legacy Management Agreement*, Rocky Flats Environmental Technology Site, Golden, Colorado, March 14 (Attachment 2 Legacy Management Requirements, revised 2012).

DOE (U.S. Department of Energy), 2011. *Rocky Flats Site, Colorado*, *Surface Water Configuration Environmental Assessment*, DOE/EA-1747, LMS/RFS/S06335, Office of Legacy Management, May.

DOE (U.S. Department of Energy), 2013b. *Rocky Flats, Colorado*, *Site Site Operations Guide*, Revision 6.0, LMS/RFS/S03037, Office of Legacy Management, Westminster, Colorado, July.

DOE (U.S. Department of Energy), 2015a. *Surface Water Configuration Adaptive Management Plan for the Rocky Flats, Colorado, Site*, Revision 1.0, LMS/RFS/S07698, Office of Legacy Management, May.

DOE (U.S. Department of Energy), 2017. *Annual Report of Site Surveillance and Maintenance Activities at the Rocky Flats, Colorado, Site, Calendar Year 2016,* LMS/RFS/S15402, Office of Legacy Management, April. (At the time of publication of this 2016 AMP Annual Report, it was anticipated that the *Annual Report of Site Surveillance and Maintenance Activities at the Rocky Flats Site, Colorado, Calendar Year 2016* would be published in April 2017.)

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LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
00193	WL	10/11/2016	16108090	000630-20-6	1,1,1,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		QF	G	STD
00193	WL	10/11/2016	16108090	000071-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		QF	G	STD
00193	WL	10/11/2016	16108090	000079-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		QF	G	STD
00193	WL	10/11/2016	16108090	000079-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		QF	G	STD
00193	WL	10/11/2016	16108090	000075-34-3	1,1-Dichloroethane	N001	0.22	ug/L	U	F	0.22		QF	G	STD
00193	WL	10/11/2016	16108090	000075-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		QF	G	STD
00193	WL	10/11/2016	16108090	000563-58-6	1,1-Dichloropropene	N001	0.19	ug/L	U	F	0.19		QF	G	STD
00193	WL	10/11/2016	16108090	000087-61-6	1,2,3-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		QF	G	STD
00193	WL	10/11/2016	16108090	000096-18-4	1,2,3-Trichloropropane	N001	0.33	ug/L	U	F	0.33		QF	G	STD
00193	WL	10/11/2016	16108090	000120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U*	F	0.21		QF	G	STD
00193	WL	10/11/2016	16108090	000095-63-6	1,2,4-Trimethylbenzene	N001	0.15	ug/L	U	F	0.15		QF	G	STD
00193	WL	10/11/2016	16108090	000096-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		QF	G	STD
00193	WL	10/11/2016	16108090	000106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		QF	G	STD
00193	WL	10/11/2016	16108090	000095-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		QF	G	STD
00193	WL	10/11/2016	16108090	000107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		QF	G	STD
00193	WL	10/11/2016	16108090	000078-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		QF	G	STD
00193	WL	10/11/2016	16108090	000108-67-8	1,3,5-Trimethylbenzene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
00193	WL	10/11/2016	16108090	000541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		QF	G	STD
00193	WL	10/11/2016	16108090	000142-28-9	1,3-Dichloropropane	N001	0.22	ug/L	U	F	0.22		QF	G	STD
00193	WL	10/11/2016	16108090	000106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
00193	WL	10/11/2016	16108090	000594-20-7	2,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		QF	G	STD
00193	WL	10/11/2016	16108090	000078-93-3	2-Butanone	N001	2	ug/L	U	F	2		QF	G	STD
00193	WL	10/11/2016	16108090	000095-49-8	2-Chlorotoluene	N001	0.17	ug/L	U	F	0.17		QF	G	STD
00193	WL	10/11/2016	16108090	000591-78-6	2-Hexanone	N001	1.7	ug/L	U	F	1.7		QF	G	STD
00193	WL	10/11/2016	16108090	000106-43-4	4-Chlorotoluene	N001	0.21	ug/L	U	F	0.21		QF	G	STD
00193	WL	10/11/2016	16108090	000108-10-1	4-Methyl-2-Pentanone	N001	0.98	ug/L	U	F	0.98		QF	G	STD
00193	WL	10/11/2016	16108090	000067-64-1	Acetone	N001	1.9	ug/L	U	F	1.9		QF	G	STD
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00193	WL	10/11/2016	16108090	000074-97-5	Bromochloromethane	N001	0.1	ug/L	U	F	0.1		QF	G	STD
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00193	WL	10/11/2016	16108090	010061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		QF	G	STD
00193	WL	10/11/2016	16108090	000079-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
00193	WL	10/11/2016	16108090	000075-69-4	Trichlorofluoromethane	N001	0.29	ug/L	U	F	0.29		QF	G	STD
00193	WL	10/11/2016	16108090	07440-61-1	Uranium	0001	84	ug/L		F	0.05		QF	G	STD
00193	WL	10/11/2016	16108090	000075-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		QF	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
00997	WL	10/12/2016	16108090	000630-20-6	1,1,1,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		QF	G	STD
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00997	WL	10/12/2016	16108090	000079-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		QF	G	STD
00997	WL	10/12/2016	16108090	000079-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		QF	G	STD
00997	WL	10/12/2016	16108090	000075-34-3	1,1-Dichloroethane	N001	0.22	ug/L	U	F	0.22		QF	G	STD
00997	WL	10/12/2016	16108090	000075-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		QF	G	STD
00997	WL	10/12/2016	16108090	000563-58-6	1,1-Dichloropropene	N001	0.19	ug/L	U	F	0.19		QF	G	STD
00997	WL	10/12/2016	16108090	000087-61-6	1,2,3-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		QF	G	STD
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00997	WL	10/12/2016	16108090	000120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U*	F	0.21		QF	G	STD
00997	WL	10/12/2016	16108090	000095-63-6	1,2,4-Trimethylbenzene	N001	0.15	ug/L	U	F	0.15		QF	G	STD
00997	WL	10/12/2016	16108090	000096-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		QF	G	STD
00997	WL	10/12/2016	16108090	000106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		QF	G	STD
00997	WL	10/12/2016	16108090	000095-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		QF	G	STD
00997	WL	10/12/2016	16108090	000107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		QF	G	STD
00997	WL	10/12/2016	16108090	000078-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		QF	G	STD
00997	WL	10/12/2016	16108090	000108-67-8	1,3,5-Trimethylbenzene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
00997	WL	10/12/2016	16108090	000541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		QF	G	STD
00997	WL	10/12/2016	16108090	000142-28-9	1,3-Dichloropropane	N001	0.22	ug/L	U	F	0.22		QF	G	STD
00997	WL	10/12/2016	16108090	000106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
00997	WL	10/12/2016	16108090	000594-20-7	2,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		QF	G	STD
00997	WL	10/12/2016	16108090	000078-93-3	2-Butanone	N001	2	ug/L	U	F	2		QF	G	STD
00997	WL	10/12/2016	16108090	000095-49-8	2-Chlorotoluene	N001	0.17	ug/L	U	F	0.17		QF	G	STD
00997	WL	10/12/2016	16108090	000591-78-6	2-Hexanone	N001	1.7	ug/L	U	F	1.7		QF	G	STD
00997	WL	10/12/2016	16108090	000106-43-4	4-Chlorotoluene	N001	0.21	ug/L	U	F	0.21		QF	G	STD
00997	WL	10/12/2016	16108090	000108-10-1	4-Methyl-2-Pentanone	N001	0.98	ug/L	U	F	0.98		QF	G	STD
00997	WL	10/12/2016	16108090	000067-64-1	Acetone	N001	1.9	ug/L	U	F	1.9		QF	G	STD
00997	WL	10/12/2016	16108090	000071-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
00997	WL	10/12/2016	16108090	000108-86-1	Bromobenzene	N001	0.17	ug/L	U	F	0.17		QF	G	STD
00997	WL	10/12/2016	16108090	000074-97-5	Bromochloromethane	N001	0.1	ug/L	U	F	0.1		QF	G	STD
00997	WL	10/12/2016	16108090	000075-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		QF	G	STD
00997	WL	10/12/2016	16108090	000075-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		QF	G	STD
00997	WL	10/12/2016	16108090	000074-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		QF	G	STD
00997	WL	10/12/2016	16108090	000075-15-0	Carbon Disulfide	N001	0.45	ug/L	U	F	0.45		QF	G	STD
00997	WL	10/12/2016	16108090	000056-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		QF	G	STD
00997	WL	10/12/2016	16108090	000108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		QF	G	STD
00997	WL	10/12/2016	16108090	000124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		QF	G	STD
00997	WL	10/12/2016	16108090	000075-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		QF	G	STD
00997	WL	10/12/2016	16108090	000067-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		QF	G	STD
00997	WL	10/12/2016	16108090	000074-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		QF	G	STD
00997	WL	10/12/2016	16108090	000156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		QF	G	STD
00997	WL	10/12/2016	16108090	010061-01-5	cis-1,3-Dichloropropene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
00997	WL	10/12/2016	16108090	000074-95-3	Dibromomethane	N001	0.17	ug/L	U	F	0.17		QF	G	STD
00997	WL	10/12/2016	16108090	000075-71-8	Dichlorodifluoromethane	N001	0.31	ug/L	U	F	0.31		QF	G	STD
00997	WL	10/12/2016	16108090	000100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
00997	WL	10/12/2016	16108090	000087-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		QF	G	STD
00997	WL	10/12/2016	16108090	000098-82-8	Isopropylbenzene	N001	0.19	ug/L	U	F	0.19		QF	G	STD
00997	WL	10/12/2016	16108090	000075-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		QF	G	STD
00997	WL	10/12/2016	16108090	000091-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		QF	G	STD
00997	WL	10/12/2016	16108090	000104-51-8	n-Butylbenzene	N001	0.32	ug/L	U	F	0.32		QF	G	STD
00997	WL	10/12/2016	16108090	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.083	mg/L		F	0.019		QF	G	STD
00997	WL	10/12/2016	16108090	000103-65-1	n-Propylbenzene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
00997	WL	10/12/2016	16108090	000099-87-6	p-Isopropyltoluene	N001	0.2	ug/L	U	F	0.2		QF	G	STD
00997	WL	10/12/2016	16108090	000135-98-8	sec-Butylbenzene	N001	0.17	ug/L	U	F	0.17		QF	G	STD
00997	WL	10/12/2016	16108090	000100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		QF	G	STD
00997	WL	10/12/2016	16108090	000098-06-6	tert-Butylbenzene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
00997	WL	10/12/2016	16108090	000127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		QF	G	STD
00997	WL	10/12/2016	16108090	000108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		QF	G	STD
00997	WL	10/12/2016	16108090	001330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		QF	G	STD
00997	WL	10/12/2016	16108090	000156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		QF	G	STD
00997	WL	10/12/2016	16108090	010061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		QF	G	STD
00997	WL	10/12/2016	16108090	000079-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
00997	WL	10/12/2016	16108090	000075-69-4	Trichlorofluoromethane	N001	0.29	ug/L	U	F	0.29		QF	G	STD
00997	WL	10/12/2016	16108090	07440-61-1	Uranium	0001	30	ug/L		F	0.05		QF	G	STD
00997	WL	10/12/2016	16108090	000075-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		QF	G	STD
10304	WL	10/12/2016	16108090	000630-20-6	1,1,1,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		F	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
10304	WL	10/12/2016	16108090	000630-20-6	1,1,1,2-Tetrachloroethane	N002	0.21	ug/L	U	D	0.21		F	G	STD
10304	WL	10/12/2016	16108090	000071-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000071-55-6	1,1,1-Trichloroethane	N002	0.16	ug/L	U	D	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000079-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		F	G	STD
10304	WL	10/12/2016	16108090	000079-34-5	1,1,2,2-Tetrachloroethane	N002	0.21	ug/L	U	D	0.21		F	G	STD
10304	WL	10/12/2016	16108090	000079-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		F	G	STD
10304	WL	10/12/2016	16108090	000079-00-5	1,1,2-Trichloroethane	N002	0.27	ug/L	U	D	0.27		F	G	STD
10304	WL	10/12/2016	16108090	000075-34-3	1,1-Dichloroethane	N001	0.22	ug/L	U	F	0.22		F	G	STD
10304	WL	10/12/2016	16108090	000075-34-3	1,1-Dichloroethane	N002	0.22	ug/L	U	D	0.22		F	G	STD
10304	WL	10/12/2016	16108090	000075-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		F	G	STD
10304	WL	10/12/2016	16108090	000075-35-4	1,1-Dichloroethene	N002	0.23	ug/L	U	D	0.23		F	G	STD
10304	WL	10/12/2016	16108090	000563-58-6	1,1-Dichloropropene	N001	0.19	ug/L	U	F	0.19		F	G	STD
10304	WL	10/12/2016	16108090	000563-58-6	1,1-Dichloropropene	N002	0.19	ug/L	U	D	0.19		F	G	STD
10304	WL	10/12/2016	16108090	000087-61-6	1,2,3-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		F	G	STD
10304	WL	10/12/2016	16108090	000087-61-6	1,2,3-Trichlorobenzene	N002	0.21	ug/L	U	D	0.21		F	G	STD
10304	WL	10/12/2016	16108090	000096-18-4	1,2,3-Trichloropropane	N001	0.33	ug/L	U	F	0.33		F	G	STD
10304	WL	10/12/2016	16108090	000096-18-4	1,2,3-Trichloropropane	N002	0.33	ug/L	U	D	0.33		F	G	STD
10304	WL	10/12/2016	16108090	000120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U*	F	0.21		F	G	STD
10304	WL	10/12/2016	16108090	000120-82-1	1,2,4-Trichlorobenzene	N002	0.21	ug/L	U*	D	0.21		F	G	STD
10304	WL	10/12/2016	16108090	000095-63-6	1,2,4-Trimethylbenzene	N001	0.15	ug/L	U	F	0.15		F	G	STD
10304	WL	10/12/2016	16108090	000095-63-6	1,2,4-Trimethylbenzene	N002	0.15	ug/L	U	D	0.15		F	G	STD
10304	WL	10/12/2016	16108090	000096-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		F	G	STD
10304	WL	10/12/2016	16108090	000096-12-8	1,2-Dibromo-3-chloropropane	N002	0.47	ug/L	U	D	0.47		F	G	STD
10304	WL	10/12/2016	16108090	000106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		F	G	STD
10304	WL	10/12/2016	16108090	000106-93-4	1,2-Dibromoethane	N002	0.18	ug/L	U	D	0.18		F	G	STD
10304	WL	10/12/2016	16108090	000095-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		F	G	STD
10304	WL	10/12/2016	16108090	000095-50-1	1,2-Dichlorobenzene	N002	0.15	ug/L	U	D	0.15		F	G	STD
10304	WL	10/12/2016	16108090	000107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		F	G	STD
10304	WL	10/12/2016	16108090	000107-06-2	1,2-Dichloroethane	N002	0.13	ug/L	U	D	0.13		F	G	STD
10304	WL	10/12/2016	16108090	000078-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		F	G	STD
10304	WL	10/12/2016	16108090	000078-87-5	1,2-Dichloropropane	N002	0.18	ug/L	U	D	0.18		F	G	STD
10304	WL	10/12/2016	16108090	000108-67-8	1,3,5-Trimethylbenzene	N001	0.16	ug/L	U	F	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000108-67-8	1,3,5-Trimethylbenzene	N002	0.16	ug/L	U	D	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		F	G	STD
10304	WL	10/12/2016	16108090	000541-73-1	1,3-Dichlorobenzene	N002	0.13	ug/L	U	D	0.13		F	G	STD
10304	WL	10/12/2016	16108090	000142-28-9	1,3-Dichloropropane	N001	0.22	ug/L	U	F	0.22		F	G	STD
10304	WL	10/12/2016	16108090	000142-28-9	1,3-Dichloropropane	N002	0.22	ug/L	U	D	0.22		F	G	STD
10304	WL	10/12/2016	16108090	000106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000106-46-7	1,4-Dichlorobenzene	N002	0.16	ug/L	U	D	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000594-20-7	2,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		F	G	STD
10304	WL	10/12/2016	16108090	000594-20-7	2,2-Dichloropropane	N002	0.18	ug/L	U	D	0.18		F	G	STD
10304	WL	10/12/2016	16108090	000078-93-3	2-Butanone	N001	2	ug/L	U	F	2		F	G	STD
10304	WL	10/12/2016	16108090	000078-93-3	2-Butanone	N002	2	ug/L	U	D	2		F	G	STD
10304	WL	10/12/2016	16108090	000095-49-8	2-Chlorotoluene	N001	0.17	ug/L	U	F	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000095-49-8	2-Chlorotoluene	N002	0.17	ug/L	U	D	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000591-78-6	2-Hexanone	N001	1.7	ug/L	U	F	1.7		F	G	STD
10304	WL	10/12/2016	16108090	000591-78-6	2-Hexanone	N002	1.7	ug/L	U	D	1.7		F	G	STD
10304	WL	10/12/2016	16108090	000106-43-4	4-Chlorotoluene	N001	0.21	ug/L	U	F	0.21		F	G	STD
10304	WL	10/12/2016	16108090	000106-43-4	4-Chlorotoluene	N002	0.21	ug/L	U	D	0.21		F	G	STD
10304	WL	10/12/2016	16108090	000108-10-1	4-Methyl-2-Pentanone	N001	0.98	ug/L	U	F	0.98		F	G	STD
10304	WL	10/12/2016	16108090	000108-10-1	4-Methyl-2-Pentanone	N002	0.98	ug/L	U	D	0.98		F	G	STD
10304	WL	10/12/2016	16108090	000067-64-1	Acetone	N001	1.9	ug/L	U	F	1.9		F	G	STD
10304	WL	10/12/2016	16108090	000067-64-1	Acetone	N002	1.9	ug/L	U	D	1.9		F	G	STD
10304	WL	10/12/2016	16108090	000071-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000071-43-2	Benzene	N002	0.16	ug/L	U	D	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000108-86-1	Bromobenzene	N001	0.17	ug/L	U	F	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000108-86-1	Bromobenzene	N002	0.17	ug/L	U	D	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000074-97-5	Bromochloromethane	N001	0.1	ug/L	U	F	0.1		F	G	STD
10304	WL	10/12/2016	16108090	000074-97-5	Bromochloromethane	N002	0.1	ug/L	U	D	0.1		F	G	STD
10304	WL	10/12/2016	16108090	000075-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000075-27-4	Bromodichloromethane	N002	0.17	ug/L	U	D	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000075-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		F	G	STD
10304	WL	10/12/2016	16108090	000075-25-2	Bromoform	N002	0.19	ug/L	U	D	0.19		F	G	STD
10304	WL	10/12/2016	16108090	000074-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		F	G	STD
10304	WL	10/12/2016	16108090	000074-83-9	Bromomethane	N002	0.21	ug/L	U	D	0.21		F	G	STD
10304	WL	10/12/2016	16108090	000075-15-0	Carbon Disulfide	N001	0.45	ug/L	U	F	0.45		F	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
10304	WL	10/12/2016	16108090	000075-15-0	Carbon Disulfide	N002	0.45	ug/L	U	D	0.45		F	G	STD
10304	WL	10/12/2016	16108090	000056-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		F	G	STD
10304	WL	10/12/2016	16108090	000056-23-5	Carbon tetrachloride	N002	0.19	ug/L	U	D	0.19		F	G	STD
10304	WL	10/12/2016	16108090	000108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000108-90-7	Chlorobenzene	N002	0.17	ug/L	U	D	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000124-48-1	Chlorodibromomethane	N002	0.17	ug/L	U	D	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000075-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		F	G	STD
10304	WL	10/12/2016	16108090	000075-00-3	Chloroethane	N002	0.41	ug/L	U	D	0.41		F	G	STD
10304	WL	10/12/2016	16108090	000067-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000067-66-3	Chloroform	N002	0.19	ug/L	J	D	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000074-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		F	G	STD
10304	WL	10/12/2016	16108090	000074-87-3	Chloromethane	N002	0.3	ug/L	U	D	0.3		F	G	STD
10304	WL	10/12/2016	16108090	000156-59-2	cis-1,2-Dichloroethene	N001	3.3	ug/L		F	0.15		JF	G	STD
10304	WL	10/12/2016	16108090	000156-59-2	cis-1,2-Dichloroethene	N002	2.5	ug/L		D	0.15		JF	G	STD
10304	WL	10/12/2016	16108090	010061-01-5	cis-1,3-Dichloropropene	N001	0.16	ug/L	U	F	0.16		F	G	STD
10304	WL	10/12/2016	16108090	010061-01-5	cis-1,3-Dichloropropene	N002	0.16	ug/L	U	D	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000074-95-3	Dibromomethane	N001	0.17	ug/L	U	F	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000074-95-3	Dibromomethane	N002	0.17	ug/L	U	D	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000075-71-8	Dichlorodifluoromethane	N001	0.31	ug/L	U	F	0.31		F	G	STD
10304	WL	10/12/2016	16108090	000075-71-8	Dichlorodifluoromethane	N002	0.31	ug/L	U	D	0.31		F	G	STD
10304	WL	10/12/2016	16108090	000100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000100-41-4	Ethylbenzene	N002	0.16	ug/L	U	D	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000087-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		F	G	STD
10304	WL	10/12/2016	16108090	000087-68-3	Hexachlorobutadiene	N002	0.36	ug/L	U	D	0.36		F	G	STD
10304	WL	10/12/2016	16108090	000098-82-8	Isopropylbenzene	N001	0.19	ug/L	U	F	0.19		F	G	STD
10304	WL	10/12/2016	16108090	000098-82-8	Isopropylbenzene	N002	0.19	ug/L	U	D	0.19		F	G	STD
10304	WL	10/12/2016	16108090	000075-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		F	G	STD
10304	WL	10/12/2016	16108090	000075-09-2	Methylene chloride	N002	0.32	ug/L	U	D	0.32		F	G	STD
10304	WL	10/12/2016	16108090	000091-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		F	G	STD
10304	WL	10/12/2016	16108090	000091-20-3	Naphthalene	N002	0.22	ug/L	U	D	0.22		F	G	STD
10304	WL	10/12/2016	16108090	000104-51-8	n-Butylbenzene	N001	0.32	ug/L	U	F	0.32		F	G	STD
10304	WL	10/12/2016	16108090	000104-51-8	n-Butylbenzene	N002	0.32	ug/L	U	D	0.32		F	G	STD
10304	WL	10/12/2016	16108090	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.019	mg/L	U	F	0.019		F	G	STD
10304	WL	10/12/2016	16108090	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N002	0.031	mg/L	J	D	0.019		F	G	STD
10304	WL	10/12/2016	16108090	000103-65-1	n-Propylbenzene	N001	0.16	ug/L	U	F	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000103-65-1	n-Propylbenzene	N002	0.16	ug/L	U	D	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000099-87-6	p-Isopropyltoluene	N001	0.2	ug/L	U	F	0.2		F	G	STD
10304	WL	10/12/2016	16108090	000099-87-6	p-Isopropyltoluene	N002	0.2	ug/L	U	D	0.2		F	G	STD
10304	WL	10/12/2016	16108090	000135-98-8	sec-Butylbenzene	N001	0.17	ug/L	U	F	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000135-98-8	sec-Butylbenzene	N002	0.17	ug/L	U	D	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000100-42-5	Styrene	N002	0.17	ug/L	U	D	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000098-06-6	tert-Butylbenzene	N001	0.16	ug/L	U	F	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000098-06-6	tert-Butylbenzene	N002	0.16	ug/L	U	D	0.16		F	G	STD
10304	WL	10/12/2016	16108090	000127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		F	G	STD
10304	WL	10/12/2016	16108090	000127-18-4	Tetrachloroethene	N002	0.2	ug/L	U	D	0.2		F	G	STD
10304	WL	10/12/2016	16108090	000108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		F	G	STD
10304	WL	10/12/2016	16108090	000108-88-3	Toluene	N002	0.17	ug/L	U	D	0.17		F	G	STD
10304	WL	10/12/2016	16108090	001330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		F	G	STD
10304	WL	10/12/2016	16108090	001330-20-7	Total Xylenes	N002	0.19	ug/L	U	D	0.19		F	G	STD
10304	WL	10/12/2016	16108090	000156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		F	G	STD
10304	WL	10/12/2016	16108090	000156-60-5	trans-1,2-Dichloroethene	N002	0.15	ug/L	U	D	0.15		F	G	STD
10304	WL	10/12/2016	16108090	010061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		F	G	STD
10304	WL	10/12/2016	16108090	010061-02-6	trans-1,3-dichloropropene	N002	0.19	ug/L	U	D	0.19		F	G	STD
10304	WL	10/12/2016	16108090	000079-01-6	Trichloroethene	N001	4.7	ug/L		F	0.16		JF	G	STD
10304	WL	10/12/2016	16108090	000079-01-6	Trichloroethene	N002	3.5	ug/L		D	0.16		JF	G	STD
10304	WL	10/12/2016	16108090	000075-69-4	Trichlorofluoromethane	N001	0.29	ug/L	U	F	0.29		F	G	STD
10304	WL	10/12/2016	16108090	000075-69-4	Trichlorofluoromethane	N002	0.29	ug/L	U	D	0.29		F	G	STD
10304	WL	10/12/2016	16108090	07440-61-1	Uranium	0001	33	ug/L		F	0.05		F	G	STD
10304	WL	10/12/2016	16108090	07440-61-1	Uranium	0002	33	ug/L		D	0.05		F	G	STD
10304	WL	10/12/2016	16108090	000075-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		F	G	STD
10304	WL	10/12/2016	16108090	000075-01-4	Vinyl chloride	N002	0.1	ug/L	U	D	0.1		F	G	STD
10594	WL	10/12/2016	16108090	000630-20-6	1,1,1,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		QF	G	STD
10594	WL	10/12/2016	16108090	000071-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		QF	G	STD
10594	WL	10/12/2016	16108090	000079-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		QF	G	STD

Table 11. Analytical Results for Water Samples

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
10594	WL	10/12/2016	16108090	000079-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		QF	G	STD
10594	WL	10/12/2016	16108090	000075-34-3	1,1-Dichloroethane	N001	0.22	ug/L	U	F	0.22		QF	G	STD
10594	WL	10/12/2016	16108090	000075-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		QF	G	STD
10594	WL	10/12/2016	16108090	000563-58-6	1,1-Dichloropropene	N001	0.19	ug/L	U	F	0.19		QF	G	STD
10594	WL	10/12/2016	16108090	000087-61-6	1,2,3-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		QF	G	STD
10594	WL	10/12/2016	16108090	000096-18-4	1,2,3-Trichloropropane	N001	0.33	ug/L	U	F	0.33		QF	G	STD
10594	WL	10/12/2016	16108090	000120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U*	F	0.21		QF	G	STD
10594	WL	10/12/2016	16108090	000095-63-6	1,2,4-Trimethylbenzene	N001	0.15	ug/L	U	F	0.15		QF	G	STD
10594	WL	10/12/2016	16108090	000096-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		QF	G	STD
10594	WL	10/12/2016	16108090	000106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		QF	G	STD
10594	WL	10/12/2016	16108090	000095-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		QF	G	STD
10594	WL	10/12/2016	16108090	000107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		QF	G	STD
10594	WL	10/12/2016	16108090	000078-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		QF	G	STD
10594	WL	10/12/2016	16108090	000108-67-8	1,3,5-Trimethylbenzene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
10594	WL	10/12/2016	16108090	000541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		QF	G	STD
10594	WL	10/12/2016	16108090	000142-28-9	1,3-Dichloropropane	N001	0.22	ug/L	U	F	0.22		QF	G	STD
10594	WL	10/12/2016	16108090	000106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
10594	WL	10/12/2016	16108090	000594-20-7	2,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		QF	G	STD
10594	WL	10/12/2016	16108090	000078-93-3	2-Butanone	N001	2	ug/L	U	F	2		QF	G	STD
10594	WL	10/12/2016	16108090	000095-49-8	2-Chlorotoluene	N001	0.17	ug/L	U	F	0.17		QF	G	STD
10594	WL	10/12/2016	16108090	000591-78-6	2-Hexanone	N001	1.7	ug/L	U	F	1.7		QF	G	STD
10594	WL	10/12/2016	16108090	000106-43-4	4-Chlorotoluene	N001	0.21	ug/L	U	F	0.21		QF	G	STD
10594	WL	10/12/2016	16108090	000108-10-1	4-Methyl-2-Pentanone	N001	0.98	ug/L	U	F	0.98		QF	G	STD
10594	WL	10/12/2016	16108090	000067-64-1	Acetone	N001	1.9	ug/L	U	F	1.9		QF	G	STD
10594	WL	10/12/2016	16108090	000071-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
10594	WL	10/12/2016	16108090	000108-86-1	Bromobenzene	N001	0.17	ug/L	U	F	0.17		QF	G	STD
10594	WL	10/12/2016	16108090	000074-97-5	Bromochloromethane	N001	0.1	ug/L	U	F	0.1		QF	G	STD
10594	WL	10/12/2016	16108090	000075-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		QF	G	STD
10594	WL	10/12/2016	16108090	000075-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		QF	G	STD
10594	WL	10/12/2016	16108090	000074-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		QF	G	STD
10594	WL	10/12/2016	16108090	000075-15-0	Carbon Disulfide	N001	0.45	ug/L	U	F	0.45		QF	G	STD
10594	WL	10/12/2016	16108090	000056-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		QF	G	STD
10594	WL	10/12/2016	16108090	000108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		QF	G	STD
10594	WL	10/12/2016	16108090	000124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		QF	G	STD
10594	WL	10/12/2016	16108090	000075-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		QF	G	STD
10594	WL	10/12/2016	16108090	000067-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		QF	G	STD
10594	WL	10/12/2016	16108090	000074-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		QF	G	STD
10594	WL	10/12/2016	16108090	000156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		QF	G	STD
10594	WL	10/12/2016	16108090	010061-01-5	cis-1,3-Dichloropropene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
10594	WL	10/12/2016	16108090	000074-95-3	Dibromomethane	N001	0.17	ug/L	U	F	0.17		QF	G	STD
10594	WL	10/12/2016	16108090	000075-71-8	Dichlorodifluoromethane	N001	0.31	ug/L	U	F	0.31		QF	G	STD
10594	WL	10/12/2016	16108090	000100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
10594	WL	10/12/2016	16108090	000087-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		QF	G	STD
10594	WL	10/12/2016	16108090	000098-82-8	Isopropylbenzene	N001	0.19	ug/L	U	F	0.19		QF	G	STD
10594	WL	10/12/2016	16108090	000075-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		QF	G	STD
10594	WL	10/12/2016	16108090	000091-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		QF	G	STD
10594	WL	10/12/2016	16108090	000104-51-8	n-Butylbenzene	N001	0.32	ug/L	U	F	0.32		QF	G	STD
10594	WL	10/12/2016	16108090	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.019	mg/L	U	F	0.019		QF	G	STD
10594	WL	10/12/2016	16108090	000103-65-1	n-Propylbenzene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
10594	WL	10/12/2016	16108090	000099-87-6	p-Isopropyltoluene	N001	0.2	ug/L	U	F	0.2		QF	G	STD
10594	WL	10/12/2016	16108090	000135-98-8	sec-Butylbenzene	N001	0.17	ug/L	U	F	0.17		QF	G	STD
10594	WL	10/12/2016	16108090	000100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		QF	G	STD
10594	WL	10/12/2016	16108090	000098-06-6	tert-Butylbenzene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
10594	WL	10/12/2016	16108090	000127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		QF	G	STD
10594	WL	10/12/2016	16108090	000108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		QF	G	STD
10594	WL	10/12/2016	16108090	001330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		QF	G	STD
10594	WL	10/12/2016	16108090	000156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		QF	G	STD
10594	WL	10/12/2016	16108090	010061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		QF	G	STD
10594	WL	10/12/2016	16108090	000079-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		QF	G	STD
10594	WL	10/12/2016	16108090	000075-69-4	Trichlorofluoromethane	N001	0.29	ug/L	U	F	0.29		QF	G	STD
10594	WL	10/12/2016	16108090	07440-61-1	Uranium	0001	130	ug/L		F	0.05		QF	G	STD
10594	WL	10/12/2016	16108090	000075-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		QF	G	STD
11104	WL	10/19/2016	16108103	000630-20-6	1,1,1,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
11104	WL	10/19/2016	16108103	000071-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
11104	WL	10/19/2016	16108103	000079-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
11104	WL	10/19/2016	16108103	000079-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		FQ	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
11104	WL	10/19/2016	16108103	000075-34-3	1,1-Dichloroethane	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
11104	WL	10/19/2016	16108103	000075-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		FQ	G	STD
11104	WL	10/19/2016	16108103	000563-58-6	1,1-Dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
11104	WL	10/19/2016	16108103	000087-61-6	1,2,3-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
11104	WL	10/19/2016	16108103	000096-18-4	1,2,3-Trichloropropane	N001	0.33	ug/L	U	F	0.33		FQ	G	STD
11104	WL	10/19/2016	16108103	000120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U*	F	0.21		FQ	G	STD
11104	WL	10/19/2016	16108103	000095-63-6	1,2,4-Trimethylbenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
11104	WL	10/19/2016	16108103	000096-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U*	F	0.47		FQ	G	STD
11104	WL	10/19/2016	16108103	000106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
11104	WL	10/19/2016	16108103	000095-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
11104	WL	10/19/2016	16108103	000107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
11104	WL	10/19/2016	16108103	000078-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
11104	WL	10/19/2016	16108103	000108-67-8	1,3,5-Trimethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
11104	WL	10/19/2016	16108103	000541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
11104	WL	10/19/2016	16108103	000142-28-9	1,3-Dichloropropane	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
11104	WL	10/19/2016	16108103	000106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
11104	WL	10/19/2016	16108103	000594-20-7	2,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
11104	WL	10/19/2016	16108103	000078-93-3	2-Butanone	N001	2	ug/L	U	F	2		FQ	G	STD
11104	WL	10/19/2016	16108103	000095-49-8	2-Chlorotoluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
11104	WL	10/19/2016	16108103	000591-78-6	2-Hexanone	N001	1.7	ug/L	U	F	1.7		FQ	G	STD
11104	WL	10/19/2016	16108103	000106-43-4	4-Chlorotoluene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
11104	WL	10/19/2016	16108103	000108-10-1	4-Methyl-2-Pentanone	N001	0.98	ug/L	U	F	0.98		FQ	G	STD
11104	WL	10/19/2016	16108103	000067-64-1	Acetone	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
11104	WL	10/19/2016	16108103	000071-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
11104	WL	10/19/2016	16108103	000108-86-1	Bromobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
11104	WL	10/19/2016	16108103	000074-97-5	Bromochloromethane	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
11104	WL	10/19/2016	16108103	000075-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
11104	WL	10/19/2016	16108103	000075-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
11104	WL	10/19/2016	16108103	000074-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
11104	WL	10/19/2016	16108103	000075-15-0	Carbon Disulfide	N001	0.45	ug/L	U	F	0.45		FQ	G	STD
11104	WL	10/19/2016	16108103	000056-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
11104	WL	10/19/2016	16108103	000108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
11104	WL	10/19/2016	16108103	000124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
11104	WL	10/19/2016	16108103	000075-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		FQ	G	STD
11104	WL	10/19/2016	16108103	000067-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
11104	WL	10/19/2016	16108103	000074-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
11104	WL	10/19/2016	16108103	000156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
11104	WL	10/19/2016	16108103	010061-01-5	cis-1,3-Dichloropropene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
11104	WL	10/19/2016	16108103	000074-95-3	Dibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
11104	WL	10/19/2016	16108103	000075-71-8	Dichlorodifluoromethane	N001	0.31	ug/L	U	F	0.31		FQ	G	STD
11104	WL	10/19/2016	16108103	000100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
11104	WL	10/19/2016	16108103	000087-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
11104	WL	10/19/2016	16108103	000098-82-8	Isopropylbenzene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
11104	WL	10/19/2016	16108103	000075-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
11104	WL	10/19/2016	16108103	000091-20-3	Naphthalene	N001	0.22	ug/L	U*	F	0.22		FQ	G	STD
11104	WL	10/19/2016	16108103	000104-51-8	n-Butylbenzene	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
11104	WL	10/19/2016	16108103	000103-65-1	n-Propylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
11104	WL	10/19/2016	16108103	000099-87-6	p-Isopropyltoluene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
11104	WL	10/19/2016	16108103	000135-98-8	sec-Butylbenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
11104	WL	10/19/2016	16108103	000100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
11104	WL	10/19/2016	16108103	000098-06-6	tert-Butylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
11104	WL	10/19/2016	16108103	000127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
11104	WL	10/19/2016	16108103	000108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
11104	WL	10/19/2016	16108103	001330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
11104	WL	10/19/2016	16108103	000156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
11104	WL	10/19/2016	16108103	010061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
11104	WL	10/19/2016	16108103	000079-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
11104	WL	10/19/2016	16108103	000075-69-4	Trichlorofluoromethane	N001	0.29	ug/L	U	F	0.29		FQ	G	STD
11104	WL	10/19/2016	16108103	07440-61-1	Uranium	0001	27	ug/L		F	0.05		FQ	G	STD
11104	WL	10/19/2016	16108103	000075-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
4087	WL	10/19/2016	16108103	000630-20-6	1,1,1,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
4087	WL	10/19/2016	16108103	000071-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
4087	WL	10/19/2016	16108103	000079-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
4087	WL	10/19/2016	16108103	000079-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
4087	WL	10/19/2016	16108103	000075-34-3	1,1-Dichloroethane	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
4087	WL	10/19/2016	16108103	000075-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		FQ	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
4087	WL	10/19/2016	16108103	000563-58-6	1,1-Dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
4087	WL	10/19/2016	16108103	000087-61-6	1,2,3-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
4087	WL	10/19/2016	16108103	000096-18-4	1,2,3-Trichloropropane	N001	0.33	ug/L	U	F	0.33		FQ	G	STD
4087	WL	10/19/2016	16108103	000120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U*	F	0.21		FQ	G	STD
4087	WL	10/19/2016	16108103	000095-63-6	1,2,4-Trimethylbenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
4087	WL	10/19/2016	16108103	000096-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U*	F	0.47		FQ	G	STD
4087	WL	10/19/2016	16108103	000106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
4087	WL	10/19/2016	16108103	000095-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
4087	WL	10/19/2016	16108103	000107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
4087	WL	10/19/2016	16108103	000078-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
4087	WL	10/19/2016	16108103	000108-67-8	1,3,5-Trimethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
4087	WL	10/19/2016	16108103	000541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
4087	WL	10/19/2016	16108103	000142-28-9	1,3-Dichloropropane	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
4087	WL	10/19/2016	16108103	000106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
4087	WL	10/19/2016	16108103	000594-20-7	2,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
4087	WL	10/19/2016	16108103	000078-93-3	2-Butanone	N001	2	ug/L	U	F	2		FQ	G	STD
4087	WL	10/19/2016	16108103	000095-49-8	2-Chlorotoluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
4087	WL	10/19/2016	16108103	000591-78-6	2-Hexanone	N001	1.7	ug/L	U	F	1.7		FQ	G	STD
4087	WL	10/19/2016	16108103	000106-43-4	4-Chlorotoluene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
4087	WL	10/19/2016	16108103	000108-10-1	4-Methyl-2-Pentanone	N001	0.98	ug/L	U	F	0.98		FQ	G	STD
4087	WL	10/19/2016	16108103	000067-64-1	Acetone	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
4087	WL	10/19/2016	16108103	000071-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
4087	WL	10/19/2016	16108103	000108-86-1	Bromobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
4087	WL	10/19/2016	16108103	000074-97-5	Bromochloromethane	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
4087	WL	10/19/2016	16108103	000075-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
4087	WL	10/19/2016	16108103	000075-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
4087	WL	10/19/2016	16108103	000074-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
4087	WL	10/19/2016	16108103	000075-15-0	Carbon Disulfide	N001	0.45	ug/L	U	F	0.45		FQ	G	STD
4087	WL	10/19/2016	16108103	000056-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
4087	WL	10/19/2016	16108103	000108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
4087	WL	10/19/2016	16108103	000124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
4087	WL	10/19/2016	16108103	000075-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		FQ	G	STD
4087	WL	10/19/2016	16108103	000067-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
4087	WL	10/19/2016	16108103	000074-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
4087	WL	10/19/2016	16108103	000156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
4087	WL	10/19/2016	16108103	010061-01-5	cis-1,3-Dichloropropene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
4087	WL	10/19/2016	16108103	000074-95-3	Dibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
4087	WL	10/19/2016	16108103	000075-71-8	Dichlorodifluoromethane	N001	0.31	ug/L	U	F	0.31		FQ	G	STD
4087	WL	10/19/2016	16108103	000100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
4087	WL	10/19/2016	16108103	000087-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
4087	WL	10/19/2016	16108103	000098-82-8	Isopropylbenzene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
4087	WL	10/19/2016	16108103	000075-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
4087	WL	10/19/2016	16108103	000091-20-3	Naphthalene	N001	0.22	ug/L	U*	F	0.22		FQ	G	STD
4087	WL	10/19/2016	16108103	000104-51-8	n-Butylbenzene	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
4087	WL	10/19/2016	16108103	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.019	mg/L	U	F	0.019		FQ	G	STD
4087	WL	10/19/2016	16108103	000103-65-1	n-Propylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
4087	WL	10/19/2016	16108103	000099-87-6	p-Isopropyltoluene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
4087	WL	10/19/2016	16108103	000135-98-8	sec-Butylbenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
4087	WL	10/19/2016	16108103	000100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
4087	WL	10/19/2016	16108103	000098-06-6	tert-Butylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
4087	WL	10/19/2016	16108103	000127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
4087	WL	10/19/2016	16108103	000108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
4087	WL	10/19/2016	16108103	001330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
4087	WL	10/19/2016	16108103	000156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
4087	WL	10/19/2016	16108103	010061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
4087	WL	10/19/2016	16108103	000079-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
4087	WL	10/19/2016	16108103	000075-69-4	Trichlorofluoromethane	N001	0.29	ug/L	U	F	0.29		FQ	G	STD
4087	WL	10/19/2016	16108103	07440-61-1	Uranium	0001	13	ug/L		F	0.05		FQ	G	STD
4087	WL	10/19/2016	16108103	000075-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
42505	WL	10/11/2016	16108082	000630-20-6	1,1,1,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
42505	WL	10/11/2016	16108082	000071-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
42505	WL	10/11/2016	16108082	000079-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
42505	WL	10/11/2016	16108082	000079-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
42505	WL	10/11/2016	16108082	000075-34-3	1,1-Dichloroethane	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
42505	WL	10/11/2016	16108082	000075-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		FQ	G	STD
42505	WL	10/11/2016	16108082	000563-58-6	1,1-Dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
42505	WL	10/11/2016	16108082	000087-61-6	1,2,3-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
42505	WL	10/11/2016	16108082	000096-18-4	1,2,3-Trichloropropane	N001	0.33	ug/L	U	F	0.33		FQ	G	STD
42505	WL	10/11/2016	16108082	000120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
42505	WL	10/11/2016	16108082	000095-63-6	1,2,4-Trimethylbenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
42505	WL	10/11/2016	16108082	000096-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		FQ	G	STD
42505	WL	10/11/2016	16108082	000106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
42505	WL	10/11/2016	16108082	000095-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
42505	WL	10/11/2016	16108082	000107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
42505	WL	10/11/2016	16108082	000078-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
42505	WL	10/11/2016	16108082	000108-67-8	1,3,5-Trimethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
42505	WL	10/11/2016	16108082	000541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
42505	WL	10/11/2016	16108082	000142-28-9	1,3-Dichloropropane	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
42505	WL	10/11/2016	16108082	000106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
42505	WL	10/11/2016	16108082	000594-20-7	2,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
42505	WL	10/11/2016	16108082	000078-93-3	2-Butanone	N001	2	ug/L	U	F	2		FQ	G	STD
42505	WL	10/11/2016	16108082	000095-49-8	2-Chlorotoluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
42505	WL	10/11/2016	16108082	000591-78-6	2-Hexanone	N001	1.7	ug/L	U	F	1.7		FQ	G	STD
42505	WL	10/11/2016	16108082	000106-43-4	4-Chlorotoluene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
42505	WL	10/11/2016	16108082	000108-10-1	4-Methyl-2-Pentanone	N001	0.98	ug/L	U	F	0.98		FQ	G	STD
42505	WL	10/11/2016	16108082	000067-64-1	Acetone	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
42505	WL	10/11/2016	16108082	000071-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
42505	WL	10/11/2016	16108082	000108-86-1	Bromobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
42505	WL	10/11/2016	16108082	000074-97-5	Bromochloromethane	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
42505	WL	10/11/2016	16108082	000075-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
42505	WL	10/11/2016	16108082	000075-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
42505	WL	10/11/2016	16108082	000074-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
42505	WL	10/11/2016	16108082	000075-15-0	Carbon Disulfide	N001	0.45	ug/L	U	F	0.45		FQ	G	STD
42505	WL	10/11/2016	16108082	000056-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
42505	WL	10/11/2016	16108082	000108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
42505	WL	10/11/2016	16108082	000124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
42505	WL	10/11/2016	16108082	000075-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		FQ	G	STD
42505	WL	10/11/2016	16108082	000067-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
42505	WL	10/11/2016	16108082	000074-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
42505	WL	10/11/2016	16108082	000156-59-2	cis-1,2-Dichloroethene	N001	1.8	ug/L		F	0.15		FQ	G	STD
42505	WL	10/11/2016	16108082	010061-01-5	cis-1,3-Dichloropropene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
42505	WL	10/11/2016	16108082	000074-95-3	Dibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
42505	WL	10/11/2016	16108082	000075-71-8	Dichlorodifluoromethane	N001	0.31	ug/L	U	F	0.31		FQ	G	STD
42505	WL	10/11/2016	16108082	000100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
42505	WL	10/11/2016	16108082	000087-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
42505	WL	10/11/2016	16108082	000098-82-8	Isopropylbenzene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
42505	WL	10/11/2016	16108082	000075-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
42505	WL	10/11/2016	16108082	000091-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
42505	WL	10/11/2016	16108082	000104-51-8	n-Butylbenzene	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
42505	WL	10/11/2016	16108082	000103-65-1	n-Propylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
42505	WL	10/11/2016	16108082	000099-87-6	p-Isopropyltoluene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
42505	WL	10/11/2016	16108082	000135-98-8	sec-Butylbenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
42505	WL	10/11/2016	16108082	000100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
42505	WL	10/11/2016	16108082	000098-06-6	tert-Butylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
42505	WL	10/11/2016	16108082	000127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
42505	WL	10/11/2016	16108082	000108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
42505	WL	10/11/2016	16108082	001330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
42505	WL	10/11/2016	16108082	000156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
42505	WL	10/11/2016	16108082	010061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
42505	WL	10/11/2016	16108082	000079-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
42505	WL	10/11/2016	16108082	000075-69-4	Trichlorofluoromethane	N001	0.29	ug/L	U	F	0.29		FQ	G	STD
42505	WL	10/11/2016	16108082	000075-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
89104	WL	10/19/2016	16108102	000630-20-6	1,1,1,2-Tetrachloroethane	N001	0.21	ug/L	UH	F	0.21		JFQ	G	STD
89104	WL	10/19/2016	16108102	000071-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	UH	F	0.16		JFQ	G	STD
89104	WL	10/19/2016	16108102	000079-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	UH	F	0.21		JFQ	G	STD
89104	WL	10/19/2016	16108102	000079-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	UH	F	0.27		JFQ	G	STD
89104	WL	10/19/2016	16108102	000075-34-3	1,1-Dichloroethane	N001	0.22	ug/L	UH	F	0.22		JFQ	G	STD
89104	WL	10/19/2016	16108102	000075-35-4	1,1-Dichloroethene	N001	0.23	ug/L	UH	F	0.23		JFQ	G	STD
89104	WL	10/19/2016	16108102	000563-58-6	1,1-Dichloropropene	N001	0.19	ug/L	UH	F	0.19		JFQ	G	STD
89104	WL	10/19/2016	16108102	000087-61-6	1,2,3-Trichlorobenzene	N001	0.21	ug/L	UH	F	0.21		JFQ	G	STD
89104	WL	10/19/2016	16108102	000096-18-4	1,2,3-Trichloropropane	N001	0.33	ug/L	UH	F	0.33		JFQ	G	STD
89104	WL	10/19/2016	16108102	000120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	UH	F	0.21		JFQ	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCERTAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
89104	WL	10/19/2016	16108102	000095-63-6	1,2,4-Trimethylbenzene	N001	0.15	ug/L	UH	F	0.15		JFQ	G	STD
89104	WL	10/19/2016	16108102	000096-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	UH	F	0.47		JFQ	G	STD
89104	WL	10/19/2016	16108102	000106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	UH	F	0.18		JFQ	G	STD
89104	WL	10/19/2016	16108102	000095-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	UH	F	0.15		JFQ	G	STD
89104	WL	10/19/2016	16108102	000107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	UH	F	0.13		JFQ	G	STD
89104	WL	10/19/2016	16108102	000078-87-5	1,2-Dichloropropane	N001	0.18	ug/L	UH	F	0.18		JFQ	G	STD
89104	WL	10/19/2016	16108102	000108-67-8	1,3,5-Trimethylbenzene	N001	0.16	ug/L	UH	F	0.16		JFQ	G	STD
89104	WL	10/19/2016	16108102	000541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	UH	F	0.13		JFQ	G	STD
89104	WL	10/19/2016	16108102	000142-28-9	1,3-Dichloropropane	N001	0.22	ug/L	UH	F	0.22		JFQ	G	STD
89104	WL	10/19/2016	16108102	000106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	UH	F	0.16		JFQ	G	STD
89104	WL	10/19/2016	16108102	000594-20-7	2,2-Dichloropropane	N001	0.18	ug/L	UH	F	0.18		JFQ	G	STD
89104	WL	10/19/2016	16108102	000078-93-3	2-Butanone	N001	2	ug/L	UH	F	2		JFQ	G	STD
89104	WL	10/19/2016	16108102	000095-49-8	2-Chlorotoluene	N001	0.17	ug/L	UH	F	0.17		JFQ	G	STD
89104	WL	10/19/2016	16108102	000591-78-6	2-Hexanone	N001	1.7	ug/L	UH	F	1.7		JFQ	G	STD
89104	WL	10/19/2016	16108102	000106-43-4	4-Chlorotoluene	N001	0.21	ug/L	UH	F	0.21		JFQ	G	STD
89104	WL	10/19/2016	16108102	000108-10-1	4-Methyl-2-Pentanone	N001	0.98	ug/L	UH	F	0.98		JFQ	G	STD
89104	WL	10/19/2016	16108102	000067-64-1	Acetone	N001	1.9	ug/L	UH	F	1.9		JFQ	G	STD
89104	WL	10/19/2016	16108102	000071-43-2	Benzene	N001	0.16	ug/L	UH	F	0.16		JFQ	G	STD
89104	WL	10/19/2016	16108102	000108-86-1	Bromobenzene	N001	0.17	ug/L	UH	F	0.17		JFQ	G	STD
89104	WL	10/19/2016	16108102	000074-97-5	Bromochloromethane	N001	0.1	ug/L	UH	F	0.1		JFQ	G	STD
89104	WL	10/19/2016	16108102	000075-27-4	Bromodichloromethane	N001	0.17	ug/L	UH	F	0.17		JFQ	G	STD
89104	WL	10/19/2016	16108102	000075-25-2	Bromoform	N001	0.19	ug/L	UH	F	0.19		JFQ	G	STD
89104	WL	10/19/2016	16108102	000074-83-9	Bromomethane	N001	0.21	ug/L	UH	F	0.21		JFQ	G	STD
89104	WL	10/19/2016	16108102	000075-15-0	Carbon Disulfide	N001	0.45	ug/L	UH	F	0.45		JFQ	G	STD
89104	WL	10/19/2016	16108102	000056-23-5	Carbon tetrachloride	N001	0.19	ug/L	UH	F	0.19		JFQ	G	STD
89104	WL	10/19/2016	16108102	000108-90-7	Chlorobenzene	N001	0.17	ug/L	UH	F	0.17		JFQ	G	STD
89104	WL	10/19/2016	16108102	000124-48-1	Chlorodibromomethane	N001	0.17	ug/L	UH	F	0.17		JFQ	G	STD
89104	WL	10/19/2016	16108102	000075-00-3	Chloroethane	N001	0.41	ug/L	UH	F	0.41		JFQ	G	STD
89104	WL	10/19/2016	16108102	000067-66-3	Chloroform	N001	0.16	ug/L	UH	F	0.16		JFQ	G	STD
89104	WL	10/19/2016	16108102	000074-87-3	Chloromethane	N001	0.3	ug/L	UH	F	0.3		JFQ	G	STD
89104	WL	10/19/2016	16108102	000156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	UH	F	0.15		JFQ	G	STD
89104	WL	10/19/2016	16108102	010061-01-5	cis-1,3-Dichloropropene	N001	0.16	ug/L	UH	F	0.16		JFQ	G	STD
89104	WL	10/19/2016	16108102	000074-95-3	Dibromomethane	N001	0.17	ug/L	UH	F	0.17		JFQ	G	STD
89104	WL	10/19/2016	16108102	000075-71-8	Dichlorodifluoromethane	N001	0.31	ug/L	UH	F	0.31		JFQ	G	STD
89104	WL	10/19/2016	16108102	000100-41-4	Ethylbenzene	N001	0.16	ug/L	UH	F	0.16		JFQ	G	STD
89104	WL	10/19/2016	16108102	000087-68-3	Hexachlorobutadiene	N001	0.36	ug/L	UH	F	0.36		JFQ	G	STD
89104	WL	10/19/2016	16108102	000098-82-8	Isopropylbenzene	N001	0.19	ug/L	UH	F	0.19		JFQ	G	STD
89104	WL	10/19/2016	16108102	000075-09-2	Methylene chloride	N001	0.4	ug/L	JHB*	F	0.32		UJFQ	G	STD
89104	WL	10/19/2016	16108102	000091-20-3	Naphthalene	N001	0.22	ug/L	UH	F	0.22		JFQ	G	STD
89104	WL	10/19/2016	16108102	000104-51-8	n-Butylbenzene	N001	0.32	ug/L	UH	F	0.32		JFQ	G	STD
89104	WL	10/19/2016	16108102	000103-65-1	n-Propylbenzene	N001	0.16	ug/L	UH	F	0.16		JFQ	G	STD
89104	WL	10/19/2016	16108102	000099-87-6	p-Isopropyltoluene	N001	0.2	ug/L	UH	F	0.2		JFQ	G	STD
89104	WL	10/19/2016	16108102	000135-98-8	sec-Butylbenzene	N001	0.17	ug/L	UH	F	0.17		JFQ	G	STD
89104	WL	10/19/2016	16108102	000100-42-5	Styrene	N001	0.17	ug/L	UH	F	0.17		JFQ	G	STD
89104	WL	10/19/2016	16108102	000098-06-6	tert-Butylbenzene	N001	0.16	ug/L	UH	F	0.16		JFQ	G	STD
89104	WL	10/19/2016	16108102	000127-18-4	Tetrachloroethene	N001	0.2	ug/L	UH	F	0.2		JFQ	G	STD
89104	WL	10/19/2016	16108102	000108-88-3	Toluene	N001	0.17	ug/L	UH	F	0.17		JFQ	G	STD
89104	WL	10/19/2016	16108102	001330-20-7	Total Xylenes	N001	0.19	ug/L	UH	F	0.19		JFQ	G	STD
89104	WL	10/19/2016	16108102	000156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	UH	F	0.15		JFQ	G	STD
89104	WL	10/19/2016	16108102	010061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	UH	F	0.19		JFQ	G	STD
89104	WL	10/19/2016	16108102	000079-01-6	Trichloroethene	N001	0.16	ug/L	UH	F	0.16		JFQ	G	STD
89104	WL	10/19/2016	16108102	000075-69-4	Trichlorofluoromethane	N001	0.29	ug/L	UH	F	0.29		JFQ	G	STD
89104	WL	10/19/2016	16108102	000075-01-4	Vinyl chloride	N001	0.1	ug/L	UH	F	0.1		JFQ	G	STD
B206989	WL	10/19/2016	16108103	000630-20-6	1,1,1,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
B206989	WL	10/19/2016	16108103	000071-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
B206989	WL	10/19/2016	16108103	000079-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
B206989	WL	10/19/2016	16108103	000079-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
B206989	WL	10/19/2016	16108103	000075-34-3	1,1-Dichloroethane	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
B206989	WL	10/19/2016	16108103	000075-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		FQ	G	STD
B206989	WL	10/19/2016	16108103	000563-58-6	1,1-Dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
B206989	WL	10/19/2016	16108103	000087-61-6	1,2,3-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
B206989	WL	10/19/2016	16108103	000096-18-4	1,2,3-Trichloropropane	N001	0.33	ug/L	U	F	0.33		FQ	G	STD
B206989	WL	10/19/2016	16108103	000120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U*	F	0.21		FQ	G	STD
B206989	WL	10/19/2016	16108103	000095-63-6	1,2,4-Trimethylbenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
B206989	WL	10/19/2016	16108103	000096-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U*	F	0.47		FQ	G	STD
B206989	WL	10/19/2016	16108103	000106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
B206989	WL	10/19/2016	16108103	000095-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
B206989	WL	10/19/2016	16108103	000107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
B206989	WL	10/19/2016	16108103	000078-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
B206989	WL	10/19/2016	16108103	000108-67-8	1,3,5-Trimethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
B206989	WL	10/19/2016	16108103	000541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
B206989	WL	10/19/2016	16108103	000142-28-9	1,3-Dichloropropane	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
B206989	WL	10/19/2016	16108103	000106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
B206989	WL	10/19/2016	16108103	000594-20-7	2,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
B206989	WL	10/19/2016	16108103	000078-93-3	2-Butanone	N001	2	ug/L	U	F	2		FQ	G	STD
B206989	WL	10/19/2016	16108103	000095-49-8	2-Chlorotoluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
B206989	WL	10/19/2016	16108103	000591-78-6	2-Hexanone	N001	1.7	ug/L	U	F	1.7		FQ	G	STD
B206989	WL	10/19/2016	16108103	000106-43-4	4-Chlorotoluene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
B206989	WL	10/19/2016	16108103	000108-10-1	4-Methyl-2-Pentanone	N001	0.98	ug/L	U	F	0.98		FQ	G	STD
B206989	WL	10/19/2016	16108103	000067-64-1	Acetone	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
B206989	WL	10/19/2016	16108103	000071-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
B206989	WL	10/19/2016	16108103	000108-86-1	Bromobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
B206989	WL	10/19/2016	16108103	000074-97-5	Bromochloromethane	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
B206989	WL	10/19/2016	16108103	000075-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
B206989	WL	10/19/2016	16108103	000075-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
B206989	WL	10/19/2016	16108103	000074-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
B206989	WL	10/19/2016	16108103	000075-15-0	Carbon Disulfide	N001	0.45	ug/L	U	F	0.45		FQ	G	STD
B206989	WL	10/19/2016	16108103	000056-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
B206989	WL	10/19/2016	16108103	000108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
B206989	WL	10/19/2016	16108103	000124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
B206989	WL	10/19/2016	16108103	000075-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		FQ	G	STD
B206989	WL	10/19/2016	16108103	000067-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
B206989	WL	10/19/2016	16108103	000074-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
B206989	WL	10/19/2016	16108103	000156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
B206989	WL	10/19/2016	16108103	010061-01-5	cis-1,3-Dichloropropene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
B206989	WL	10/19/2016	16108103	000074-95-3	Dibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
B206989	WL	10/19/2016	16108103	000075-71-8	Dichlorodifluoromethane	N001	0.31	ug/L	U	F	0.31		FQ	G	STD
B206989	WL	10/19/2016	16108103	000100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
B206989	WL	10/19/2016	16108103	000087-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
B206989	WL	10/19/2016	16108103	000098-82-8	Isopropylbenzene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
B206989	WL	10/19/2016	16108103	000075-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
B206989	WL	10/19/2016	16108103	000091-20-3	Naphthalene	N001	0.22	ug/L	U*	F	0.22		FQ	G	STD
B206989	WL	10/19/2016	16108103	000104-51-8	n-Butylbenzene	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
B206989	WL	10/19/2016	16108103	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	1.1	mg/L		F	0.019		FQ	G	STD
B206989	WL	10/19/2016	16108103	000103-65-1	n-Propylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
B206989	WL	10/19/2016	16108103	000099-87-6	p-Isopropyltoluene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
B206989	WL	10/19/2016	16108103	000135-98-8	sec-Butylbenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
B206989	WL	10/19/2016	16108103	000100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
B206989	WL	10/19/2016	16108103	000098-06-6	tert-Butylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
B206989	WL	10/19/2016	16108103	000127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
B206989	WL	10/19/2016	16108103	000108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
B206989	WL	10/19/2016	16108103	001330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
B206989	WL	10/19/2016	16108103	000156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
B206989	WL	10/19/2016	16108103	010061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
B206989	WL	10/19/2016	16108103	000079-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
B206989	WL	10/19/2016	16108103	000075-69-4	Trichlorofluoromethane	N001	0.29	ug/L	U	F	0.29		FQ	G	STD
B206989	WL	10/19/2016	16108103	07440-61-1	Uranium	0001	68	ug/L		F	0.05		FQ	G	STD
B206989	WL	10/19/2016	16108103	000075-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
B3OUTFLOW	SL	12/5/2016	16128190	07440-61-1	Uranium	N001	70	ug/L		F	0.05		valid	G	STD
B3OUTFLOW	SL	12/21/2016	16128210	07440-61-1	Uranium	N001	35	ug/L		F	0.05		valid	G	STD
B5INFLOW	SL	6/16/2016	16087989	07440-61-1	Uranium	N001	5.15	ug/L		F	0.067		valid	C	GEN
B5INFLOW	SL	6/16/2016	16087989	07440-61-1	Uranium	N002	5.22	ug/L		D	0.067		valid	C	GEN
B5INFLOW	SL	8/11/2016	16108092	07440-61-1	Uranium	N001	7.4	ug/L		F	0.05		valid	G	STD
B5INFLOW	SL	10/12/2016	16108092	07440-61-1	Uranium	N001	8.7	ug/L		F	0.05		valid	G	STD
B5INFLOW	SL	10/12/2016	16108092	07440-61-1	Uranium	N002	8.8	ug/L		D	0.05		valid	G	STD
B5INFLOW	SL	10/24/2016	16108116	07440-61-1	Uranium	N001	11	ug/L		F	0.05		valid	G	STD
B5INFLOW	SL	11/7/2016	16118140	07440-61-1	Uranium	N001	9.5	ug/L		F	0.05		valid	G	STD
B5INFLOW	SL	11/21/2016	16118157	07440-61-1	Uranium	N003	7.7	ug/L		F	0.05		valid	G	STD
B5INFLOW	SL	12/5/2016	16128190	07440-61-1	Uranium	N001	11	ug/L		F	0.05		valid	G	STD
B5INFLOW	SL	12/21/2016	16128210	07440-61-1	Uranium	N001	22	ug/L		F	0.05		valid	G	STD
GS08	SL	5/16/2016	16087989	AM-241	Americium-241	N001	0.00326	pCi/L	U	F	0.0171	0.00639	valid	C	GEN
GS08	SL	5/16/2016	16087989	PU-239,240	Plutonium-239, 240	N001	0.0028	pCi/L	U	F	0.0198	0.00952	valid	C	GEN

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
GS08	SL	5/16/2016	16087989	07440-61-1	Uranium	N001	10.3	ug/L		F	0.067		valid	C	GEN
GS08	SL	10/24/2016	16108116	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.11	mg/L		F	0.019		valid	G	STD
GS08	SL	10/24/2016	16108116	07440-61-1	Uranium	N001	14	ug/L		F	0.05		J	G	STD
GS08	SL	11/7/2016	16118140	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.019	mg/L	U	F	0.019		valid	G	STD
GS08	SL	11/7/2016	16118140	07440-61-1	Uranium	N001	7.6	ug/L		F	0.05		valid	G	STD
GS08	SL	11/21/2016	16118157	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N003	0.019	mg/L	U	F	0.019		valid	G	STD
GS08	SL	11/21/2016	16118157	07440-61-1	Uranium	N003	7.3	ug/L		F	0.05		valid	G	STD
GS08	SL	12/5/2016	16128190	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.037	mg/L	J	F	0.019		valid	G	STD
GS08	SL	12/5/2016	16128190	07440-61-1	Uranium	N001	7.9	ug/L		F	0.05		valid	G	STD
GS08	SL	12/21/2016	16128210	07440-61-1	Uranium	N001	7.7	ug/L		F	0.05		valid	G	STD
GS10	SL	8/11/2016	16087990	07440-61-1	Uranium	N001	13.9	ug/L		F	0.067		valid	G	GEN
GS10	SL	8/30/2016	16098008	07440-61-1	Uranium	N001	14	ug/L	B	F	0.05		valid	G	STD
GS10	SL	8/30/2016	16098008	07440-61-1	Uranium	N002	13	ug/L	B	D	0.05		valid	G	STD
GS10	SL	9/15/2016	16098020	07440-61-1	Uranium	N001	13	ug/L		F	0.05		valid	G	STD
GS10	SL	9/29/2016	16098058	07440-61-1	Uranium	N001	10	ug/L	B	F	0.05		valid	G	STD
GS10	SL	10/12/2016	16108092	07440-61-1	Uranium	N002	9.4	ug/L		F	0.05		valid	G	STD
GS10	SL	10/24/2016	16108116	07440-61-1	Uranium	N001	11	ug/L		F	0.05		valid	G	STD
GS10	SL	11/7/2016	16118140	07440-61-1	Uranium	N001	12	ug/L		F	0.05		valid	G	STD
GS10	SL	12/5/2016	16128190	07440-61-1	Uranium	N001	19	ug/L		F	0.05		valid	G	STD
GS10	SL	12/21/2016	16128210	07440-61-1	Uranium	N001	21	ug/L		F	0.05		valid	G	STD
GS13	SL	12/5/2016	16128190	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	4.4	mg/L		F	0.19		valid	G	STD
GS13	SL	12/5/2016	16128190	07440-61-1	Uranium	N001	52	ug/L		F	0.05		valid	G	STD
GS13	SL	12/21/2016	16128210	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	19	mg/L		F	0.095		valid	G	STD
GS13	SL	12/21/2016	16128210	07440-61-1	Uranium	N001	39	ug/L		F	0.05		valid	G	STD
SPOUT	TS	9/19/2016	16098020	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	79	mg/L		F	0.38		valid	G	STD
SPOUT	TS	9/19/2016	16098020	07440-61-1	Uranium	N001	70	ug/L		F	0.05		valid	G	STD
SPOUT	TS	9/29/2016	16098058	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	39	mg/L		F	0.38		valid	G	STD
SPOUT	TS	9/29/2016	16098058	07440-61-1	Uranium	N001	68	ug/L	B	F	0.05		valid	G	STD
SPOUT	TS	10/11/2016	16108082	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.019	mg/L	U	F	0.019		valid	G	STD
SPOUT	TS	10/11/2016	16108082	07440-61-1	Uranium	N001	57	ug/L		F	0.05		valid	G	STD
SPOUT	TS	10/12/2016	16108092	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.019	mg/L	U	F	0.019		valid	G	STD
SPOUT	TS	10/24/2016	16108116	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.019	mg/L	U	F	0.019		valid	G	STD
SPOUT	TS	10/24/2016	16108116	07440-61-1	Uranium	N001	74	ug/L		F	0.05		valid	G	STD
SPOUT	TS	11/7/2016	16118140	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.019	mg/L	U	F	0.019		valid	G	STD
SPOUT	TS	11/7/2016	16118140	07440-61-1	Uranium	N001	58	ug/L		F	0.05		valid	G	STD
SPOUT	TS	11/21/2016	16118157	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N003	0.019	mg/L	U	F	0.019		valid	G	STD
SPOUT	TS	11/21/2016	16118157	07440-61-1	Uranium	N003	52	ug/L		F	0.05		valid	G	STD
SPOUT	TS	12/5/2016	16128190	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.019	mg/L	U	F	0.019		valid	G	STD
SPOUT	TS	12/5/2016	16128190	07440-61-1	Uranium	N001	55	ug/L		F	0.05		valid	G	STD
SPOUT	TS	12/21/2016	16128210	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.019	mg/L	U	F	0.019		valid	G	STD
SPOUT	TS	12/21/2016	16128210	07440-61-1	Uranium	N001	58	ug/L		F	0.05		valid	G	STD
SW093	SL	8/10/2016	16087990	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	1.43	mg/L		F	0.085		valid	G	GEN
SW093	SL	8/10/2016	16087990	07440-61-1	Uranium	N001	9.64	ug/L		F	0.067		valid	G	GEN
SW093	SL	8/30/2016	16098008	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	1.3	mg/L		F	0.019		valid	G	STD
SW093	SL	8/30/2016	16098008	07440-61-1	Uranium	N001	7.9	ug/L	B	F	0.05		valid	G	STD
SW093	SL	9/15/2016	16098020	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	1.6	mg/L		F	0.019		valid	G	STD
SW093	SL	9/15/2016	16098020	07440-61-1	Uranium	N001	9	ug/L		F	0.05		valid	G	STD
SW093	SL	9/29/2016	16098058	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	1.4	mg/L		F	0.019		valid	G	STD
SW093	SL	9/29/2016	16098058	07440-61-1	Uranium	N001	9.5	ug/L	B	F	0.05		valid	G	STD
SW093	SL	10/12/2016	16108092	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	1.6	mg/L		F	0.019		valid	G	STD
SW093	SL	10/12/2016	16108092	07440-61-1	Uranium	N001	9.2	ug/L		F	0.05		valid	G	STD
SW093	SL	10/24/2016	16108116	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	1.9	mg/L		F	0.019		valid	G	STD
SW093	SL	10/24/2016	16108116	07440-61-1	Uranium	N001	9.9	ug/L		F	0.05		valid	G	STD
SW093	SL	11/7/2016	16118140	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	2.1	mg/L		F	0.019		valid	G	STD
SW093	SL	11/7/2016	16118140	07440-61-1	Uranium	N001	8.3	ug/L		F	0.05		valid	G	STD
SW093	SL	11/21/2016	16118157	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N003	1.8	mg/L		F	0.019		valid	G	STD
SW093	SL	11/21/2016	16118157	07440-61-1	Uranium	N003	12	ug/L		F	0.05		valid	G	STD
SW093	SL	12/5/2016	16128190	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	1.4	mg/L		F	0.019		valid	G	STD
SW093	SL	12/5/2016	16128190	07440-61-1	Uranium	N001	13	ug/L		F	0.05		valid	G	STD
SW093	SL	12/21/2016	16128210	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	3.7	mg/L		F	0.019		valid	G	STD
SW093	SL	12/21/2016	16128210	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N002	3.7	mg/L		D	0.019		valid	G	STD
SW093	SL	12/21/2016	16128210	07440-61-1	Uranium	N001	10	ug/L		F	0.05		valid	G	STD
SW093	SL	12/21/2016	16128210	07440-61-1	Uranium	N002	10	ug/L		D	0.05		valid	G	STD
WOMPOC	SL	6/16/2016	16118161	AM-241	Americium-241	N002	0.00716	pCi/L	U	F	0.0268	0.0109	valid	C	GEN
WOMPOC	SL	6/16/2016	16118161	PU-239,240	Plutonium-239, 240	N002	9.83E-10	pCi/L	U	F	0.0159	0.00801	valid	C	GEN
WOMPOC	SL	6/16/2016	16118161	07440-61-1	Uranium	N002	2.88	ug/L		F	0.067		valid	C	GEN

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE

EXPLANATION

SAMPLE_ID

N00x = Sample was not filtered.
000x = Sample was filtered.

WATER_UNIT_OF_MEASURE

mg/L; ppm = milligrams per liter
pCi/L = picocuries per liter
ug/L = micrograms per liter
C = degrees celsius
mS/cm = milliSiemens per centimeter
NTU = normal turbidity units
s.u. = standard pH units
uS/cm = microSiemens per centimeter
umhos/cm = microSiemens per centimeter

SAMPLE_TYPE

F = Field Sample
D = Duplicate

DATA_VALIDATION_QUALIFIERS

valid	Result is valid.
F	Low flow sampling method used.
G	Possible grout contamination, pH > 9.
J	Estimated value.
L	Less than 3 bore volumes purged prior to sampling.
Q	Qualitative result due to sampling technique
R	Unusable result.
U	Parameter analyzed for but was not detected.
X	Location is undefined.
999	Validation not complete

LAB_QUALIFIERS

*	Replicate analysis not within control limits.
+	Correlation coefficient for MSA < 0.995.
>	Result above upper detection limit.
A	TIC is a suspected aldol-condensation product.
B	Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
C	Pesticide result confirmed by GC-MS.
D	Analyte determined in diluted sample.
E	Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
H	Holding time expired, value suspect.
I	Increased detection limit due to required dilution.
J	Estimated
M	GFAA duplicate injection precision not met.
N	Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compund (TIC).
P	> 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
S	Result determined by method of standard addition (MSA).
U	Analytical result below detection limit.
W	Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
X	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
Y	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
Z	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

LOCATION_TYPE

SL	SURFACE LOCATION
TS	TREATMENT SYSTEM
WL	WELL

COLLECTION_METHOD

G	Grab
C	Composite

LAB_CODE

GEN	Gel Laboratories
STD	Test America

Table 12. Water Sampling Events: Fourth Quarter CY 2016

	Sampling Dates		Sample Info			Analytes					Sample Tracking Info	
Location Code	**Start**	**End**	**Collection Method**	**Type**	**Filtered**	**VOC**	**U**	**Nitrate**	**Pu/Am**	**TSS**	**Ticket**	**RIN #**
GS08	5/16/2016 12:27	8/15/2016 14:15	composite	F	No		X		X		OJS 798	16087989
B5INFLOW	6/16/2016 10:20	8/11/2016 11:46	composite	D	No		X				OJS 803	16087989
B5INFLOW	6/16/2016 10:20	8/11/2016 11:46	composite	F	No		X				OJS 799	16087989
SW093	8/10/2016 9:12	8/10/2016 9:12	grab	F	No		X	X			OJS 802	16087990
GS10	8/11/2016 12:32	8/11/2016 12:32	grab	F	No		X				OJS 801	16087990
GS10	8/30/2016 13:07	8/30/2016 13:07	grab	F	No		X				OKU 495	16098008
GS10	8/30/2016 13:07	8/30/2016 13:07	grab	D	No		X				OKU 499	16098008
SW093	8/30/2016 13:42	8/30/2016 13:42	grab	F	No		X	X			OKU 496	16098008
SW093	9/15/2016 12:20	9/15/2016 12:20	grab	F	No		X	X			OKU 642	16098020
GS10	9/15/2016 13:48	9/15/2016 13:48	grab	F	No		X				OKU 643	16098020
SPOUT	9/19/2016 12:42	9/19/2016 12:42	grab	F	No		X	X			OKU 641	16098020
WOMPOC	6/16/2016 12:17	11/22/2016 11:26	composite	F	No		X		X		OMS 690	16118161
B5INFLOW	8/11/2016 11:46	10/12/2016 9:45	composite	F	No		X				OLV 404	16108092
SW093	9/29/2016 11:10	9/29/2016 11:10	grab	F	No		X	X			OKV 110	16098058
SPOUT	9/29/2016 11:17	9/29/2016 11:17	grab	F	No		X	X			OKV 113	16098058
GS10	9/29/2016 12:02	9/29/2016 12:02	grab	F	No		X				OKV 109	16098058
42505	10/11/2016 11:00	10/11/2016 11:00	grab	F	No	X					OLV 264	16108082
SPOUT	10/11/2016 11:00	10/11/2016 11:00	grab	F	No		X	X			OLV 258	16108082
00193	10/11/2016 14:00	10/11/2016 14:00	grab	F	Yes		X				OLV 367	16108090
00193	10/11/2016 14:00	10/11/2016 14:00	grab	F	No	X					OLV 367	16108090
10304	10/12/2016 9:10	10/12/2016 9:10	grab	F	No	X		X			OLV 366	16108090
10304	10/12/2016 9:10	10/12/2016 9:10	grab	F	Yes		X				OLV 366	16108090
10304	10/12/2016 9:10	10/12/2016 9:10	grab	D	No	X		X			OLV 378	16108090
10304	10/12/2016 9:10	10/12/2016 9:10	grab	D	Yes		X				OLV 378	16108090
B5INFLOW	10/12/2016 9:33	10/12/2016 9:33	grab	F	No		X				OLV 402	16108092
B5INFLOW	10/12/2016 9:33	10/12/2016 9:33	grab	D	No		X				OLV 403	16108092
SW093	10/12/2016 10:15	10/12/2016 10:15	grab	F	No		X	X			OLV 399	16108092
GS10	10/12/2016 10:36	10/12/2016 10:36	grab	F	No		X				OLV 400	16108092
00997	10/12/2016 11:30	10/12/2016 11:30	grab	F	No	X		X			OLV 376	16108090
00997	10/12/2016 11:30	10/12/2016 11:30	grab	F	Yes		X				OLV 376	16108090
10594	10/12/2016 12:33	10/12/2016 12:33	grab	F	No	X		X			OLV 377	16108090
10594	10/12/2016 12:33	10/12/2016 12:33	grab	F	Yes		X				OLV 377	16108090
SPOUT	10/12/2016 13:10	10/12/2016 13:10	grab	F	No			X			OLV 398	16108092
11104	10/19/2016 11:28	10/19/2016 11:28	grab	F	No	X					OLV 520	16108103
11104	10/19/2016 11:28	10/19/2016 11:28	grab	F	Yes		X				OLV 520	16108103
4087	10/19/2016 12:10	10/19/2016 12:10	grab	F	No	X		X			OLV 515	16108103
4087	10/19/2016 12:10	10/19/2016 12:10	grab	F	Yes		X				OLV 515	16108103
B206989	10/19/2016 12:40	10/19/2016 12:40	grab	F	No	X		X			OLV 518	16108103
B206989	10/19/2016 12:40	10/19/2016 12:40	grab	F	Yes		X				OLV 518	16108103
89104	10/19/2016 13:19	10/19/2016 13:19	grab	F	No	X					OLV 491	16108102
GS08	10/24/2016 11:19	10/24/2016 11:19	grab	F	No		X	X			OLY 297	16108116
B5INFLOW	10/24/2016 11:54	10/24/2016 11:54	grab	F	No		X				OLY 296	16108116
SW093	10/24/2016 13:05	10/24/2016 13:05	grab	F	No		X	X			OLY 293	16108116
SPOUT	10/24/2016 13:22	10/24/2016 13:22	grab	F	No		X	X			OLY 295	16108116
GS10	10/24/2016 13:43	10/24/2016 13:43	grab	F	No		X				OLY 292	16108116

Table 12. Water Sampling Events: Fourth Quarter CY 2016

	Sampling Dates		Sample Info			Analytes					Sample Tracking Info	
Location Code	Start	End	Collection Method	Type	Filtered	VOC	U	Nitrate	Pu/Am	TSS	Ticket	RIN #
SW093	11/7/2016 11:45	11/7/2016 11:45	grab	F	No		X	X			OMR 419	16118140
SPOUT	11/7/2016 11:52	11/7/2016 11:52	grab	F	No		X	X			OMR 418	16118140
B5INFLOW	11/7/2016 12:36	11/7/2016 12:36	grab	F	No		X				OMR 421	16118140
GS08	11/7/2016 13:06	11/7/2016 13:06	grab	F	No		X	X			OMR 425	16118140
GS10	11/7/2016 14:11	11/7/2016 14:11	grab	F	No		X				OMR 420	16118140
GS08	11/21/2016 12:00	11/21/2016 12:00	grab	F	No		X	X			OMR 872	16118157
B5INFLOW	11/21/2016 12:17	11/21/2016 12:17	grab	F	No		X				OMR 871	16118157
SW093	11/21/2016 12:57	11/21/2016 12:57	grab	F	No		X	X			OMR 875	16118157
SPOUT	11/21/2016 13:05	11/21/2016 13:05	grab	F	No		X	X			OMR 880	16118157
SW093	12/5/2016 10:58	12/5/2016 10:58	grab	F	No		X	X			ONV 521	16128190
SPOUT	12/5/2016 11:07	12/5/2016 11:07	grab	F	No		X	X			ONV 520	16128190
GS13	12/5/2016 11:31	12/5/2016 11:31	grab	F	No		X	X			ONV 527	16128190
GS08	12/5/2016 12:22	12/5/2016 12:22	grab	F	No		X	X			ONV 525	16128190
B5INFLOW	12/5/2016 12:36	12/5/2016 12:36	grab	F	No		X				ONV 523	16128190
B3OUTFLOW	12/5/2016 12:56	12/5/2016 12:56	grab	F	No		X				ONV 529	16128190
GS10	12/5/2016 13:09	12/5/2016 13:09	grab	F	No		X				ONV 522	16128190
B3OUTFLOW	12/21/2016 11:35	12/21/2016 11:35	grab	F	No		X				ONW 317	16128210
GS10	12/21/2016 11:40	12/21/2016 11:40	grab	F	No		X				ONW 312	16128210
SW093	12/21/2016 12:00	12/21/2016 12:00	grab	F	No		X	X			ONW 313	16128210
SPOUT	12/21/2016 12:05	12/21/2016 12:05	grab	F	No		X	X			ONW 315	16128210
GS13	12/21/2016 12:45	12/21/2016 12:45	grab	F	No		X	X			ONW 309	16128210
B5INFLOW	12/21/2016 13:14	12/21/2016 13:14	grab	F	No		X				ONW 310	16128210
GS08	12/21/2016 14:14	12/21/2016 14:14	grab	F	No		X				ONW 311	16128210
SW093	12/21/2016 12:00	12/21/2016 12:00	grab	D	No		X	X			ONW 318	16128210

EXPLANATION

Sample Info: Type
F = Field Sample
D = Duplicate

Analytes
VOC = volatile organic compounds
U = uranium
Nitrate = nitrate + nitrite as N
Pu/Am = plutonium-239,240 and americium-241
SVOC = semi-volatile organic compounds
TSS = total suspended solids

Sample Tracking Info: Ticket
- tracking identifier

Sample Tracking Info: RIN#
- lab requisition number

Sample Tracking Info: COC Date
- Chain of Custody date