ROCKY FLATS STEWARDSHIP COUNCIL

P.O. Box 17670 (303) 412-1200
Boulder, CO 80308-0670
www.rockyflatssc.org

Jefferson County ~ Boulder County ~ City and County of Broomfield ~ City of Arvada ~ City of Boulder
City of Golden ~ City of Northglenn ~ City of Thornton ~ City of Westminster ~ Town of Superior
League of Women Voters ~ Rocky Flats Cold War Museum ~ Rocky Flats Homesteaders
Kim Griffiths

Board of Directors Meeting – Agenda

Monday, September 9, 2019, 8:30 – 11:45 AM

Rocky Mountain Metropolitan Airport, Terminal Building, Mount Evans Room
11755 Airport Way, Broomfield, Colorado

8:30 AM Convene/Introductions/Agenda Review

8:35 AM Public Comment: Comments are limited to the Consent Agenda and non-agenda items

8:45 AM Business Items

1. Consent Agenda
   - Approval of meeting minutes and checks

2. Executive Director's Report

8:50 AM CDPHE Soil Sampling Update (briefing memo attached)
- CDPHE will provide a short update on its review of the JPPHA soil sampling program.

9:20 AM Host DOE Quarterly Meeting (briefing memo attached)
- DOE will brief the Stewardship Council on site activities for the first quarter of 2019 (January – March).
- DOE has posted the report on its website and will provide a summary of its activities to the Stewardship Council.
- Activities include surface water monitoring, groundwater monitoring, ecological monitoring, and site operations (inspections, maintenance, etc.).

Public Comment on DOE's Quarterly Report: Comments must focus on DOE's Quarterly Report.

10:35 AM 2020 Work Plan – Initial Review (briefing memo attached)
- The Board will review and edit the draft 2020 work plan.
- Formal approval of the work plan will take place at the October 28th meeting.

11:00 AM 2020 Budget – Initial Review (briefing memo attached)

- The Board will review, and modify as necessary, the draft 2020 budget.
- The budget hearing and adoption of the 2020 budget will take place at the October 28th meeting.

11:10 AM Board Roundtable – Big Picture/Additional Questions/Issue Identification

11:20 AM EXECUTIVE SESSION

Discussion of Stewardship Council personnel contracts for 2020 (authorized pursuant to Section 24-6-402(4)(e) & (b), C.R.S., to determine positions relative to matters that may be subject to negotiation, and conferencing with the attorney on such matters, and after announcement at the public meeting of the specific topic for discussion and the statutory citation authorizing the executive session, and a 2/3 vote of the quorum present for the Board.)

Adjourn

Upcoming Meetings:
October 28
February 3, 2020

Business Items

- June 3, 2019, draft board meeting minutes
- List of Stewardship Council checks

CDPHE Update on JPPHA Soil Sampling

- Cover memo
- CDPHE community update materials

DOE Quarterly Report Briefing

- Cover memo
- Selection of the quarterly report

ROCKY FLATS STEWARDSHIP COUNCIL
Monday, June 3, 2019, 8:30 – 11:15 a.m.
Rocky Mountain Metropolitan Airport, Terminal Building, Mount Evans Room
11755 Airport Way, Broomfield, Colorado

Board members: Mark McGoff (Director, Arvada), Sandra MacDonald (Alternate, Arvada), Summer Laws (Alternate, Boulder County), Lisa Morzel (Director, Boulder), Mike Shelton (Director, Broomfield), Kim Groom (Alternate, Broomfield), David Allen (Alternate, Broomfield), Pat O'Connell (Alternate, Jefferson County), Joyce Downing (Director, Northglenn), Shelley Stanley (Alternate, Northglenn), Mark Lacis (Director, Superior), Ken Lish (Alternate, Superior), Jan Kulmann (Director, Thornton), James Boswell (Alternate, Thornton), Kathryn Skulley (Director, Westminster), Jeannette Hillery (Director, League of Women Voters), Linda Porter (Alternate, League of Women Voters), Murph Widdowfield (Director, Rocky Flats Cold War Museum), Ken Freiberg (Alternate, Rocky Flats Cold War Museum), Roman Kohler (Director, Rocky Flats Homesteaders), Kim Griffiths

Stewardship Council staff and consultants: David Abelson (Executive Director), Barb Vander Wall (Seter & Vander Wall, P.C.), Melissa Weakley (Technical Program Manager), Sandy Thomas

Attendees: Ryan Hanson (Sen. Gardner), Jill Grano (Rep. Neguse), Eric Barnes (Fiscal Focus Partners), Heather Prewitt (Fiscal Focus Partners), John Aguilar (Denver Post), Irene Rodriguez (reporter), Andy Keim (DOE-LM), George Squibb (Navarro), Linda Kaiser (Navarro), Jody Nelson (Navarro), Jeremy Wehner (Navarro), Ryan Wisniewski (Navarro), Vera Moritz (EPA), Lindsay Masters (CDPHE), Laura Hubbard (Broomfield), Cathy Shugarts (Westminster), Nick Sundstrom (Arvada), Trea Nance (WCRA), Bonnie Graham-Reed, Lynn Segal, James Duncan, Sasha Stiles, David Wood, Deborah Segaloff, Dan Walkes, Carl Spreng.

Convene/Agenda Review: Chair Joyce Downing opened the meeting at 8:30 a.m.

Public comment on Consent Agenda and Non-Agenda Items: David Wood, a Candelas resident, circulated a handout regarding reports on soil radioactivity in the Rocky Flats National Wildlife Refuge and on ambient radiation on Refuge trails. His analysis shows that more than 97% of soil radioactivity is due to natural radioisotopes. The trails were measured for radioactivity, and the ambient doses equivalent was .14 microSieverts per hour. These values are consistent with ordinary background radiation along the Front Range. David concluded that these studies show that the Refuge is safe for all users. Bonnie Graham-Reed stated that the Atomic Energy Commission's 1959 study showed increased levels of plutonium. Sasha Stiles stated that she is a resident of Superior and the community and she are against fracking on Rocky Flats and the surrounding areas. Lynn Segal stated that disturbances of soil below six feet will redistribute the radioactive waste, and atmospheric conditions also change, which can affect the redistribution of waste.

David Abelson asked the public to email their comments and he will post them on the Stewardship Council website.

Business Items:
Consent Agenda: Approval of Minutes and Checks: Jan Kulmann said her name was spelled wrong. Jeannette Hillery motioned to accept the minutes with that change noted; Kathryn Skulley seconded the motion. The motion was approved 13-0.

Executive Director's Report: David started by noting there was no movement on the two Rocky Flats lawsuits. He interprets that to mean the courts do not view access to and use of the Rocky Flats National Wildlife Refuge as a threat to public health.

Regarding fiscal year 2020 appropriations, David explained that the House of Representatives has started that process. David will track funding for DOE's Office of Legacy Management, but does not foresee funding for Legacy Management and Rocky Flats, in turn, to be an issue.

Finally, David noted that USFWS reports that public use of the Refuge remains strong.

2018 Stewardship Council Audit: David introduced the auditor, Eric Barnes of Fiscal Focus Partners. Eric began by explaining that neither the DOE grant nor state law require that the Stewardship Council seek an audit of its finances. However, as the Board has done from its inception, conducting the audit makes good sense. Eric discussed the report, concluding that once again the Stewardship Council got a clean audit. He said the Stewardship Council's internal control system is accurate, and that accountant Jennifer Bohn is very competent. He said the Stewardship Council has one main asset (cash) with $145,165 in revenue from the federal grant and contributions from members, and $137,041 in expenses.

Lisa Morzel made a motion to accept the Stewardship Council 2018 Financial Audit. The motion was seconded by Jeannette Hillery. The motion passed 13-0.

DOE Annual Report: This report is for the calendar year 2018. The Stewardship Council was previously briefed on the first, second and third quarters.

Surface Water, George Squibb
George began his presentation by showing a map of the surface water monitoring locations. At the Original Landfill (OLF) along Woman Creek, during the first quarter of 2018 at downstream monitoring location GS59, the selenium concentration was 7.65 micrograms per liter, exceeding the standard of 4.6 ug/L. Per RFLMA protocols, sampling frequency was increased to monthly for the second quarter. The second quarter selenium concentration was 3.04 ug/L, and the increased sampling frequency was discontinued. Quarterly concentrations for all other analytes were below applicable RFLMA standards during all of 2018.

At the Present Landfill (PLF), during the fourth quarter of 2018 at the system effluent, the arsenic concentration was 50.5 ug/L, exceeding the standard of 10 ug/L. According to RFLMA protocols, sampling frequency was increased to monthly. Arsenic was not detected in the subsequent monthly sample and the increased sampling frequency was discontinued. Quarterly concentrations for all other analytes were below applicable RFLMA standards during 2018.

At water monitoring location SW027, the 12-month rolling average plutonium concentrations were above the RFLMA standard of 0.15 picocuries per liter (pCi/L) for June through December 2018. This is a reportable condition under the RFLMA. Due to only 10 days of flow, however, only one composite sample was taken which showed a Pu concentration of 0.16 pCi/L. Concentrations at the Woman Creek point of compliance, downstream of SW027, remained well below 0.15 pCi/L. No other RFLMA point of evaluation analyte concentrations were reportable during 2018.

At the Point of Compliance monitoring station on Walnut Creek, reportable 30-day average uranium concentrations were above the RFLMA standard of 16.8 ug/L for February 11, 2018 through April 19, 2018 during baseflow conditions. The 12-month rolling average uranium concentration remained below 16.8 ug/L. No other RFLMA point of compliance analyte concentrations were reportable during 2018.

Ken Lish asked what the subsequent actions were for the areas of reportable conditions. George explained that these conditions require consultation with RFLMA regulatory agencies (CDPHE and EPA). It was decided to continue to do high spec analysis, and update the Walnut Creek analysis. At SW027, where the level of plutonium was reportable, the monitoring was increased. Kim Groom asked why the sampling frequency was only increased to a one-month follow-up. George explained that if the one-month follow-up shows a decrease to acceptable levels, and the monitoring goes back to quarterly, it is really only one and a half months before the next testing period. This is part of the sampling plan and evaluation protocol. Protocols may change after consultation with RFLMA.

Shelley Stanley asked about additional flow at SW027. George explained that they were only able to get three grabs from a one-and-one-half day flow. Kim Griffiths asked about the flow at Woman Creek. George stated that at GS51 there was not much flow.

Public comment re: Surface Water: Several members of the public expressed concern about the sampling data from GS59.

Groundwater Monitoring and Operations: George Squibb for John Boylan
George reported that there were no changes to the monitoring network in 2018. There are ten RCRA wells that are monitored quarterly to evaluate potential impacts from OLF and PLF. There are nine Areas of Concern wells and one Surface Water Support Location that are monitored semiannually. They are located in drainages downstream of contaminant plumes and are evaluated for plumes discharging to surface water. There are 27 Sentinel wells monitored semiannually at the downgradient of treatment systems, edges of plumes, and in drainages. Monitors look for plumes migrating to surface water and treatment system problems. 42 evaluation wells are monitored biannually within plumes, near source areas, and interior of the Central Operating Unit. This is to evaluate whether monitoring of an area or plume can cease. Nine treatment system locations are monitored, seven semiannually and two quarterly.

All wells were sampled in 2018. The results were generally consistent with previous data. As in previous years, numerous statistical trends were identified, both decreasing and increasing. For the first time, statistical evaluations were completed using two approaches. The focus of the second approach was on reducing the effects of non-detects on statistical results. The statistical results for OLF and PLF were identical to those in 2016 and 2017, and very similar to earlier years.

The measured precipitation was much less than the calculated average. There was approximately 9.9 inches in 2018; the calculated average from 1993 - 2017 was 12.3 inches per year. This impacted the groundwater availability. There were more wells dry in the fourth quarter than in average years, and the treatment system groundwater volumes were reduced. The three Sentinel wells downgradient of former Building 771/774 and two Sentinel wells downgradient of former Building 371/374 were qualified as non-detects for Pu and Americium (Am). All Pu and Am results since closure have been non-detects.

There was a reportable condition at AOC well 10304 triggered by elevated concentrations of TCE in two consecutive routine samples. The second quarter sample contained TCE at 2.6 ug/L, above the standard

of 2.5 ug/L. The second consecutive routine sample in the fourth quarter contained TCE at 5.43 ug/L. TCE was previously reportable here from fourth quarter 2015 through second quarter 2017. In the fourth quarter of 2017 it was below RFLMA standard and thus was no longer reportable. The response to the current reportable condition is to sample Woman Creek location SW10200 concurrently with well 10304 through the reportable condition.

The Mound Site Plume Collection System routed water to the East Trenches Plume Treatment System throughout the year. The volume of water treated in 2018 was reduced; average flow for 2018 was approximately two gallons per minute. The treatment effectiveness was excellent. The volume of water treated in 2018 at the Solar Ponds Plume Treatment System was also reduced. Following minor upgrades in November 2018, the nitrate treatment test lagoon was converted to a long-term treatment component. A uranium treatment design procurement is underway with construction planned for 2021.

Linda Porter asked about the proposed uranium treatment design. Linda Kaiser responded that they would seek submittals for the treatment design and would choose from the most appropriate submittal. The plan is to start with a pilot program. Sandra MacDonald requested that the submittal be posted to the Rocky Flats website.

Public comment re: Groundwater: Lynn Segal asked about the reason for the variables in the rate of groundwater flow. George responded that they are not sure why, but that it probably has to do with hydrology and the different ground layers.

Site Operations, Jeremy Wehner
Jeremy reported that they conducted quarterly sign inspections, and when needed, the signs were reattached or replaced.

At the OLF, 12 monthly and two weather-related inspections were performed. They surveyed eight settlement monuments quarterly and found that vertical settling at each monument was within design limits. There was no slumping at the OLF in 2018, and minor maintenance of cover was performed. Geotechnical data was collected from the eastern and western portions of the OLF hillside. Collection included nine boreholes as piezometers, five boreholes as nested inclinometers/piezometers, and four test pits. Maintenance activities at OLF included completing the final geotechnical evaluation, ensuring that the groundwater intercept system was operational, and installing a siphon at Seep 10 during April. OLF activities also included geotechnical analysis of slope stability design to involve infiltration control, subsurface drainage, and 273 tieback anchors of 8 ft. x 8 ft. anchor blocks.

At the Present Landfill ("PLF"), four quarterly inspections and two weather related inspections (one combined) were performed. The PLF is in good condition with no significant issues identified. Settlement monuments are surveyed annually and the vertical settling at each monument was within design limits. At former building areas 371, 771, 881, and 991, four quarterly inspections and two weather related inspections (one combined) were performed. No changes were observed.

At the North Walnut Creek Slump visual observations were made weekly. The slump monitoring points surveyed monthly by visual observations and monitoring data show slope creep. There was greater movement during wetter periods. The 15 months total movement was, horizontally, 0.72 ft. to 1.61 ft, and, vertically, 0.85 ft. to 1.85 ft. The piezometers and inclinometers were monitored, and by the end of 2018 all inclinometers and some piezometers were nonfunctional. The scarp line was regraded in

February and August. A slope stability evaluation and a cost estimate, required for final recommendation, was completed.

Site roads were regraded and dust suppressant was applied to the primary roads in November and December. Site erosion controls were monitored and maintained. An annual site inspection was conducted on April 5, 2018. There were no violations of institutional or physical controls, and no adverse biological conditions were observed. It was verified that the restrictive notice was on file at Jefferson County on March 30, 2018.

Regarding the OLF, Lisa Morzel asked when the slump monitoring started. Jeremy responded that the monitoring started before the closure. Ken Lish asked Jeremy to speak to the condition of the monitoring apparatus. Jeremy replied that there is no monitoring apparatus. He added that the drain collection trench stabilization system will provide additional data for slope statistics with the added borings. Regarding proposed actions to stabilize the OLF, David Allen asked how deep the borings will be. Jeremy stated that the deepest anchor will be 98 ft. and that it depends on the angle and how it is embedded. David then asked if there was a soil disturbance plan. Jeremy stated that there was as the borings will go below 6 ft. DOE met with CDPHE and EPA to finalize the plan, and it should be available to the public when final. Lisa Morzel asked if soil was collected as the borings were done and how deep it is to the bedrock. Jeremy replied they did not collect samples, and that the depth varies from 2 ft. to about 60 ft. The bedrock is unweathered claystone.

Shelley Stanley asked for clarification of the OLF slump areas graphic. Jeremy addressed Shelley's question. Shelley asked if all water was collected or just some water. Jeremy stated that they conduct a more localized collection and that it has been stable. Referring to the same graphic, Mike Shelton asked how they stopped the water flow. Jeremy explained the process. When the water is at a certain level, a pump is dropped to siphon the water off. When the water is not there, the pump automatically shuts off. A data logger logs the water level, and when the water rises, the siphon is turned back on. Lisa Morzel stated that there are earthquake faults on Rocky Flats, which is cause for concern. She stated that putting landfill on top of a slump creates a natural mass movement.

Public comment re: Site Operations: None.

Ecology: Jody Nelson
Jody reported that approximately 21 acres were treated by spot spraying in 2018, and approximately 1.4 acres were interseeded or revegetated as part of a 2018 project. As part of the revegetation monitoring, 19 areas were monitored, 12 continue to meet the success criteria, and seven were newer revegetation areas. The Preble's meadow jumping mouse habitat continues to establish at mitigation locations. At the forb nursery, wildflowers continue to establish and spread. Jody reported that no active prairie dog towns are within the COU. Of the 25 nest boxes established for tree swallows, mountain bluebirds and house wrens, 16 were inhabited. One active Swainson's hawk nest was observed in COU in 2018. Elk were also observed.

Lisa Morzel asked if there were coyotes at the site. Jody responded that there were some, but no count has been made. Mike Shelton stated that prairie dogs are not wanted in the COU as they can bring up the subsurface. Jody stated that presently there was no issue, but if an issue arose, they would work with the US Fish and Wildlife. He stated that to discourage prairie dogs, you would want to grow lots of grass and vegetation. Lisa Morzel asked if there were badgers. Jody stated that one badger was sited in 1994, but now there are none.

Public comment re: Ecology: Sasha Styles asked what the maximum is for a healthy elk population. Jody stated that US Fish and Wildlife would know. James Duncan asked what precautions are being taken in regards to protecting Jody and his colleagues from contamination. Jody stated no precautions were needed because of residual contamination. Lynn Segal asked what other burrowing animals are on the site. Jody stated that they do not know where all of the burrows are, but he assumes there are pockets of gophers and mice. He stated there is not enough water to sustain large groups of burrowing animals.

Board Discussion of Oil and Gas Development at Rocky Flats: Mark Lacis presented a motion to oppose oil and gas exploration, production, and hydraulic fracturing on and under Rocky Flats. Lisa Morzel seconded the motion. The floor was open for discussion. Mark stated that the motion is not political, that it is specific to Rocky Flats development and fracking until concerns can be addressed. Ken Lish stated that the motion incorporated feedback from others. Mark McGoff asked what was meant by the "adjacent to" portion of the motion. Mark Lacis stated that with horizontal drilling, the drilling company does not need to place wells on Rocky Flats in order to drill under Rocky Flats.

David Allen stated that he is not comfortable with including adjacent land in the motion. Summer Laws stated that if drillers on adjacent land are drilling under Rocky Flats, she supports the "adjacent to" language. Mike Shelton discussed that the Stewardship Council has no governing authority, that it is all just symbolic, and there is no liability. He supports Jefferson County's proposed wording that was included in the meeting packet as it is more in line with an advisory statement. Kathryn Skulley stated that Westminster owns water that could be affected by drilling under Rocky Flats from adjacent land and supports the motion as written. Mark Lacis said that he reviewed Jefferson County's language and feels that it is not strong enough. It was noted that only the US Fish and Wildlife responded to the Stewardship Council's questionnaire, and it stated that the agency would like to own the mineral rights. Jan Kulmann proposed that as for drilling on Rocky Flats, the Stewardship Council use the word "oppose", and for the lands adjacent to Rocky Flats, the word "caution" be used. Pat O'Connell pointed out that the Stewardship Council does not have regulatory authority, and cannot tell counties and other governmental entities what to do. He suggested that the word "oppose" is a misnomer.

Mark Lacis stated that the Stewardship Council is not telling governments how to govern, but that the motion is a narrow statement about a specific property with unique concerns. The motion only states the opposition to drilling until certain questions are answered. Mike Shelton responded that it is a nonbinding resolution for future leaders. Lisa Morzel stated that she liked Jan's compromise. She reminded the Stewardship Council that when the prescribed burns statement was passed by the Stewardship Council unanimously, it had an impact on future decisions even though the Stewardship Council had no direct oversight. She supported Jan's compromise wording for the motion.

Jan Kulmann moved to amend the Motion as follows: “NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the Rocky Flats Stewardship Council opposes oil and gas exploration and production, including hydraulic fracturing, on and under Rocky Flats, and cautions local governments, permitting agencies, and oil and gas operators to consider the unique conditions related to Rocky Flats when considering oil and gas exploration and production, including hydraulic fracturing, on and under land adjacent to Rocky Flats, until the impacts to the cleanup remedy and, in turn, human health and the environment are known and mitigated to the satisfaction of the Stewardship Council members.” Kathryn Skulley seconded the motion.

The motion as amended passed as follows:

Yes – 12
No – 0
Abstain – 1 (Jefferson County)

Big Picture: David reviewed the schedule for the September and October meetings. The meetings will focus on the 2020 work plan and budget. The Executive Committee will be addressing the topics of soil sampling and the Greenway project and will bring this information to the Stewardship Council.

Board Roundtable: Jeannette Hillery noted that the League of Women Voters will be providing presentations regarding the 2020 census. If anyone is interested in a presentation, they can contact her for more information. Mike Shelton stated that on June 18th, Broomfield will be hosting a representative from CDPHE to discuss the Jefferson Parkway.

The meeting was adjourned at 11:15 a.m.

Prepared by Sandy Thomas

Rocky Flats Stewardship Council
Check Detail 2019
May 18 through August 13, 2019

Type	Num	Date	Name	Account	Paid Amount	Original Amount
Check		**05/28/2019**		**CASH-Wells Fargo-Operating**		**-3.50**
				Admin Services-Misc Services	-3.50	3.50
TOTAL					-3.50	3.50
Check		**06/27/2019**		**CASH-Wells Fargo-Operating**		**-3.50**
				Admin Services-Misc Services	-3.50	3.50
TOTAL					-3.50	3.50
Bill Pmt -Check	**1985**	**06/06/2019**	**Seter & Vander Wall, P.C.**	**CASH-Wells Fargo-Operating**		**-409.25**
Bill	78486	05/31/2019		Attorney Fees	-409.25	409.25
TOTAL					-409.25	409.25
Bill Pmt -Check	**1986**	**06/06/2019**	**Jennifer A. Bohn**	**CASH-Wells Fargo-Operating**		**-332.50**
Bill	19-38	05/31/2019		Accounting Fees	-332.50	332.50
TOTAL					-332.50	332.50
Bill Pmt -Check	**1987**	**06/06/2019**	**Energy Communities Alliance**	**CASH-Wells Fargo-Operating**		**-950.00**
Bill	2019-2020	06/01/2019		Subscriptions/Memberships	-950.00	950.00
TOTAL					-950.00	950.00
Bill Pmt -Check	**1988**	**06/06/2019**	**Crescent Strategies, LLC**	**CASH-Wells Fargo-Operating**		**-8,093.68**
Bill	5/31/19 Billing	05/31/2019		Personnel - Contract	-7,750.00	7,750.00
				TRAVEL-Local	-19.14	19.14
				Postage	-15.99	15.99
				Telecommunications	-108.55	108.55
				Meeting Expense	-200.00	200.00
TOTAL					-8,093.68	8,093.68
Bill Pmt -Check	**1989**	**06/06/2019**	**Cassandra Thomas**	**CASH-Wells Fargo-Operating**		**-500.00**
Bill	5/10/19	04/01/2019		Personnel - Contract	-500.00	500.00
TOTAL					-500.00	500.00
Bill Pmt -Check	**1990**	**06/06/2019**	**Blue Sky Bistro**	**CASH-Wells Fargo-Operating**		**-300.00**
Bill	3554	06/03/2019		Misc Expense-Local Government	-300.00	300.00
TOTAL					-300.00	300.00
Check	**1991**	**06/06/2019**	**Century Link**	**CASH-Wells Fargo-Operating**		**-26.67**
				Telecommunications	-26.67	26.67
TOTAL					-26.67	26.67
Check	**1992**	**07/05/2019**	**Century Link**	**CASH-Wells Fargo-Operating**		**-26.01**
				Telecommunications	-26.01	26.01
TOTAL					-26.01	26.01
Bill Pmt -Check	**1993**	**07/05/2019**	**Jennifer A. Bohn**	**CASH-Wells Fargo-Operating**		**-342.00**
Bill	19-43	06/30/2019		Accounting Fees	-342.00	342.00
TOTAL					-342.00	342.00
Bill Pmt -Check	**1994**	**07/05/2019**	**Seter & Vander Wall, P.C.**	**CASH-Wells Fargo-Operating**		**-1,221.99**
Bill	78644	06/30/2019		Attorney Fees	-1,221.99	1,221.99
TOTAL					-1,221.99	1,221.99
Bill Pmt -Check	**1995**	**07/05/2019**	**The Hartford**	**CASH-Wells Fargo-Operating**		**-37.00**
Bill	11599945 5/20/19	05/20/2019		Admin Services-Misc Services	-37.00	37.00

Rocky Flats Stewardship Council
Check Detail 2019
May 18 through August 13, 2019

Type	Num	Date	Name	Account	Paid Amount	Original Amount
TOTAL					-37.00	37.00
Bill Pmt -Check	**1996**	**07/09/2019**	**Crescent Strategies, LLC**	**CASH-Wells Fargo-Operating**		**-7,952.71**
Bill	6/30/19 Billing	06/30/2019		Personnel - Contract	-7,750.00	7,750.00
				TRAVEL-Local	-89.78	89.78
				Postage	-15.99	15.99
				Telecommunications	-96.94	96.94
TOTAL					-7,952.71	7,952.71
Check	**1997**	**08/06/2019**	**Century Link**	**CASH-Wells Fargo-Operating**		**-25.72**
				Telecommunications	-25.72	25.72
TOTAL					-25.72	25.72
Bill Pmt -Check	**1998**	**08/06/2019**	**Cassandra Thomas**	**CASH-Wells Fargo-Operating**		**-500.00**
Bill	7/10/2019 Email	07/01/2019		Personnel - Contract	-500.00	500.00
TOTAL					-500.00	500.00
Bill Pmt -Check	**1999**	**08/06/2019**	**Crescent Strategies, LLC**	**CASH-Wells Fargo-Operating**		**-8,870.45**
Bill	7/31/19 Billing	07/31/2019		Personnel - Contract	-7,750.00	7,750.00
				TRAVEL-Local	-36.31	36.31
				Postage	-15.99	15.99
				Telecommunications	-99.55	99.55
				TRAVEL-Out of State	-543.60	543.60
				Subscriptions/Memberships	-425.00	425.00
TOTAL					-8,870.45	8,870.45
Bill Pmt -Check	**2000**	**08/06/2019**	**Jennifer A. Bohn**	**CASH-Wells Fargo-Operating**		**-380.00**
Bill	19-44	07/31/2019		Accounting Fees	-380.00	380.00
TOTAL					-380.00	380.00
Bill Pmt -Check	**2001**	**08/06/2019**	**Seter & Vander Wall, P.C.**	**CASH-Wells Fargo-Operating**		**-103.50**
Bill	78817	07/31/2019		Attorney Fees	-103.50	103.50
TOTAL					-103.50	103.50

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MEMORANDUM

TO: Board of Directors
FROM: David Abelson
SUBJECT: CDPHE Update on JPPHA Soil Sampling
DATE: August 29, 2019

CDPHE will provide a 10-15 minute update on the Jefferson Parkway Public Highway Authority's (JPPHA) soil sampling program, followed by 10-15 minutes for questions.

Attached to this memo is background information CDPHE provided to the community on August 20, 2019. As of the drafting of this memo, CDPHE was still reviewing information from JPPHA and anticipates it will not have any new information to present at the meeting.

In reviewing the material and in preparing for the meeting, there are two main things to keep in mind:

1. At the April 2019 meeting, the Stewardship Council Board reaffirmed its 2007 agreement that, as a board, it will not debate the merits of the Jefferson Parkway at Stewardship Council meetings. Those discussions should instead take place in the appropriate forums. The Board can review questions regarding contamination, whether that contamination is in the COU, Refuge, or non-federal lands, including on the land that was given to the JPPHA for the purposes of developing the Jefferson Parkway.
2. As CDPHE can explain, risk assessments are complex analyses than include numerous data points. A single data point, whether high or low, is not dispositive of any risk determination.

I have been told that USFWS will likely have its sampling results available in time for the meeting. I will forward that information when I receive it.

Please let me know what questions you have.

COLORADO
Department of Public Health & Environment

August 20, 2019

Dear community members,

We want to share some important health-related information with you about the former Rocky Flats nuclear weapons facility, our initial assessment of what it means, what we still do not know, and what we are doing to learn more. We are committed to transparency and timely communication with the public.

On Friday, the Jefferson Parkway Public Highway Authority alerted us about a soil sample with an elevated level of plutonium in the Parkway Authority's right of way just west of Indiana Street. The sample location was part of the former Rocky Flats buffer. The laboratory returned a result of 264 pCi/g of plutonium in that soil sample. The Parkway Authority's laboratory then tested another portion of the same raw soil sample. The reading on the second sample was 1.5 pCi/g of plutonium, within the range of anticipated levels. The elevated sample is anomalous and requires further investigation. We are awaiting details regarding the precise location where the sample was taken, along with other technical data about sampling and testing methods.

While we continue to process the data and seek more, we want to share what we know and do not know at this point. Attached is the email the department received from Bill Ray, director of the Parkway Authority, alerting us to the sample result, along with an overview of the Parkway Authority's sampling efforts. The 264 pCi/g sample is above the 50 pCi/g cleanup standard for Rocky Flats that was set to protect public health with a margin of safety. Based on the information we have so far, our state experts and toxicologists do not believe there is an immediate public health threat. We do believe that further sampling and analysis is needed to assess what this elevated sample may mean for long-term risks, and whether it is an isolated instance, or a sign of a wider area of relatively high contamination. We are taking the sample result seriously because it is much higher than previous samples in the vicinity and higher than the cleanup standard. Again, we are seeking additional data, and will review it as it becomes available to determine how to proceed in a way that protects public health and the environment.

This sample is part of a larger sampling program that the Parkway Authority is still undertaking. The Parkway has collected approximately 250 soil samples, many of which are still being analyzed by the laboratory. The Parkway Authority will share that data with the department, and the department will share it with the community, as it becomes available in the upcoming weeks and months.

As you may be aware, in June, after listening to many members of the community, the department sent the Parkway Authority a guidance letter on regulatory requirements, precautions, and "best practices" should the construction of the Parkway commence. It is attached. This guidance letter prioritizes public health above all else. It advises the Parkway to monitor for plutonium in the air and use techniques to minimize fugitive dust from construction.

The Parkway Authority has committed to conduct additional detailed testing in the immediate vicinity of the sample that tested at 264 pCi/g. The department believes this is an appropriate and needed next step. As soon as all the tests are processed and verified by the laboratory, the department will review the final soil

sampling results, identify additional needed sampling, and share this information with the public. The department has also been in contact with the U.S. Department of Energy and Environmental Protection Agency regarding the sample.

We want to be a resource for you, so in the coming days, weeks, and months, we will continue to review additional sampling information and do everything possible to ensure you are informed. There is a state toxicology hotline for Coloradans with specific questions, and we will publish a "frequently asked questions" document in the coming days. Please check the department's website for ongoing updates.

We know you will have additional questions, because right now there is a lot left unanswered. Please reach out to Laura Dixon, the communications and community involvement manager with the Colorado Department of Public Health and Environment, with any questions or concerns. Her email address is laura.dixon@state.co.us.

Thank you for your continued partnership.

Sincerely,

Jennifer

Jennifer T. Opila, MPA
Division Director
Hazardous Materials and Waste Management Division
Colorado Department of Public Health and Environment

Attached: Best Practices Letter from CDPHE to JPPHA
Soil Sample Email from JPPHA to CDPHE
Laboratory documents
Presentation on Sampling Status

STATE OF COLORADO

Opila - CDPHE, Jennifer <jennifer.opila@state.co.us>

Request for Guidance - Rocky Flats Soils Testing

1 message

JPPHA Administrator <jppha.admin@gmail.com> Fri, Aug 16, 2019 at 12:29 PM
To: "Opila - CDPHE, Jennifer" <jennifer.opila@state.co.us>

Jennifer - We spoke earlier today and I advised you that in the course of our re-sampling of the right of way adjacent to the Rocky Flats Wildlife Refuge, we have encountered a sample that showed a 264 pCi/g presence of radioactive material. Our technical consultants believe it is a single particle of approximately 8.8 microns. You have received under separate cover the technical report performed by Engineering Analytics for this particular sample. They are satisfied that their Quality Control measures were appropriate. They performed a re-test of the same sample and came up with a similar results.

Importantly, a second portion of the same raw soils sample was taken and tested. In that instance, the reading was 1.5 pc/g3 - significantly lower. That information will be forwarded to you shortly. I have ordered a close-in grid sampling of the 20 feet around this sample site. Those results will be available in early September.

With this as background, I am requesting the guidance of CDPHE as regards this anomalous sample. Specifically, the need, if any, additional sampling? Does CDPHE wish to independently test the samples previously gathered? Does CDPHE wish to review the testing protocols being used? Do other agencies, such as DOE need to be notified at this time?

As we discussed this morning, situations like this are one reason for proceeding with the MOU. I trust we can begin that conversation in the near future.

Regards

Bill Ray
Executive Director
Jefferson Parkway Public Highway Authority
720-898-7020 (w)
303-916-9278 (c)

Isotopic Plutonium

Case Narrative

Terracon Environmental, Inc.

Jefferson County Parkway ROW - 110963

Work Order Number: 1906326

1. **This sample is being reported at the request of the client. All other samples for this work order are on hold.**

2. This report consists of the analytical results for one soil sample received by ALS on 06/14/2019.

3. The soil sample was prepared according to the current revisions of SOP 736, SOP 773, SOP 777, and SOP 778. The soil sample in this report did not undergo the fusion procedure, SOP768.

4. The sample was analyzed for the presence of isotopic plutonium according to the current revision of SOP 714. The analysis was completed on 07/11/2019.

5. The analysis results for the soil sample are reported on a 'Dry Weight' basis in units of pCi/gram.

6. Plutonium-240 is indistinguishable from Plutonium-239. In this report, any plutonium in this region of interest will be reported as Pu-239/240.

7. ALS uses the following convention for reporting significant digits in the TPU and MDC results. The TPU value is rounded to two significant digits. The MDC value is rounded to the same decimal place as the TPU value. In practice, this could result in an MDC reported value of zero for samples with significant activity, including the batch laboratory control sample.

8. No anomalous situations were encountered during the preparation or analysis of these samples. All quality control criteria were met.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Joan Anderson — 7/24/19
Joan Anderson — Date
Radiochemistry Primary Data Reviewer

Janice Stein — 7/24/19
Radiochemistry Final Data Reviewer — Date

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1906326
Client Name: Terracon Environmental, Inc.
Client Project Name: Jefferson Parkway ROW
Client Project Number: 110963
Client PO Number: 25197089

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
753+30-0-2-01	1906326-1		SOIL	14-Jun-19	8:45
753+30-0-2-99	1906326-2		SOIL	14-Jun-19	8:45
753+80-0-2-01	1906326-3		SOIL	14-Jun-19	9:00
753+80-0-2-99	1906326-4		SOIL	14-Jun-19	9:00
754+40-0-2-01	1906326-5		SOIL	14-Jun-19	9:15
754+40-0-2-99	1906326-6		SOIL	14-Jun-19	9:15
755+00-0-2-01	1906326-7		SOIL	14-Jun-19	9:25
755+00-0-2-99	1906326-8		SOIL	14-Jun-19	9:25
755+50-0-2-01	1906326-9		SOIL	14-Jun-19	9:40
755+50-0-2-99	1906326-10		SOIL	14-Jun-19	9:40
759+10-0-2-01	1906326-11		SOIL	14-Jun-19	10:00
759+10-0-2-99	1906326-12		SOIL	14-Jun-19	10:00
759+70-0-2-01	1906326-13		SOIL	14-Jun-19	10:15
759+70-0-2-99	1906326-14		SOIL	14-Jun-19	10:15
760+30-0-2-01	1906326-15		SOIL	14-Jun-19	10:40
760+30-0-2-99	1906326-16		SOIL	14-Jun-19	10:40
762+00-0-2-01	1906326-17		SOIL	14-Jun-19	11:00
762+00-0-2-99	1906326-18		SOIL	14-Jun-19	11:00
762+50-0-2-01	1906326-19		SOIL	14-Jun-19	11:10
762+50-0-2-99	1906326-20		SOIL	14-Jun-19	11:10
764+40-0-2-01	1906326-21		SOIL	14-Jun-19	13:05
764+40-0-2-99	1906326-22		SOIL	14-Jun-19	13:05
766+50-0-2-01	1906326-23		SOIL	14-Jun-19	13:20
766+50-0-2-99	1906326-24		SOIL	14-Jun-19	13:20
766+70-0-2-01	1906326-25		SOIL	14-Jun-19	13:35
766+70-0-2-99	1906326-26		SOIL	14-Jun-19	13:35
762+50-0-2-03	1906326-27		WATER	14-Jun-19	11:15
767+30-0-2-01	1906326-28		SOIL	14-Jun-19	13:45
767+30-0-2-99	1906326-29		SOIL	14-Jun-19	13:45
767+30-0-2-02	1906326-30		SOIL	14-Jun-19	13:45

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1906326
Client Name: Terracon Environmental, Inc.
Client Project Name: Jefferson Parkway ROW
Client Project Number: 110963
Client PO Number: 25197089

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
769+00-0-2-01	1906326-31		SOIL	14-Jun-19	14:15
769+00-0-2-99	1906326-32		SOIL	14-Jun-19	14:15

ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.
Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #	1906326
PAGE	1 of 3
DISPOSAL	BY LAB or RETURN

		TURNAROUND TIME	Std
		SAMPLER	MC, SK
PROJECT NAME	Jeffco Parkway	SITE ID	
PROJECT No.	110963	EDD FORMAT	Envirodata 2012
		PURCHASE ORDER	25197089
COMPANY NAME	Engineering Analytics	BILL TO COMPANY	Terracon
SEND REPORT TO	Jason Andrews	INVOICE ATTN TO	Mark White
ADDRESS	1600 Specht Point rd	ADDRESS	10625 WI-70 Frontage rd ste 3
CITY / STATE / ZIP	Fort Collins CO 80524	CITY / STATE / ZIP	Wheat Ridge CO 80033
PHONE	970 488 3111	PHONE	303 454 5208
FAX		FAX	303 423 3353
E-MAIL	JAndrews@enganalytics.com	E-MAIL	mark.white@terracon.com

PARAMETER/METHOD REQUEST FOR ANALYSIS

A	Am-241, ALS SOP 714
B	Pu-238, Pu-239/240, ALS SOP 714
C	U-234, U-235, U-238 ALS SOP 714
D	
E	
F	
G	
H	
I	
J	

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
1	753+30-0-2-01	S	6/14/19	0845	1	None		X	X	X								
2	753+30-0-2-99	↓	↓	0845	↓	↓												Hold
3	753+80-0-2-01			0900				X	X	X								
4	753+80-0-2-99			0900														Hold
5	754+40-0-2-01			0915				X	X	X								
6	754+40-0-2-99			0915														Hold
7	755+00-0-2-01			0925				X	X	X								
8	755+00-0-2-99			0925														Hold
9	755+50-0-2-01			0940				X	X	X								
10	755+50-0-2-99			0940														Hold
11	759+10-0-2-01			1000				X	X	X								
12	759+10-0-2-01	↓	↓	1000	↓	↓												Hold

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

Hold all -99 Samples for Archive

REPORT LEVEL / QC REQUIRED	
	Summary (Standard QC)
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw

Form 202r9

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	[signature]	Steve Keller	6/14/19	1610
RECEIVED BY	[signature]	Keli Jackson	6/14/19	1610
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.
Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #: 1906326

PAGE: 2 of 3

PROJECT NAME	Jeffco Parkway	TURNAROUND TIME	Std	SAMPLER	M.C, SK
PROJECT No.	110963	SITE ID		DISPOSAL	BY LAB or RETURN
		EDD FORMAT		PARAMETER/METHOD REQUEST FOR ANALYSIS	
		PURCHASE ORDER	25197089	A	AM-241 ALS SOP 714
COMPANY NAME	Engineering Analytics	BILL TO COMPANY	Terracon	B	PU-238, PU-239/240, ALS SOP 714
SEND REPORT TO	Jason Andrews	INVOICE ATTN TO	Mark White	C	U-234, U-235, U-238 ALS SOP 714
ADDRESS	1600 Specht Point rd ste 207	ADDRESS	10625 W-I-70 Frontage rd Ste 3	D	
CITY / STATE / ZIP	Fort Collins, CO 80524	CITY / STATE / ZIP	Wheat Ridge CO 80033	E	
PHONE	970 488 3111	PHONE	303 454 5208	F	
FAX		FAX	303 423 3353	G	
E-MAIL	JAndrews@enganalytics.com	E-MAIL	mark.white@terracon.com	H	
				I	
				J	

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
13	759+70-02-01	S	6/14/19	1015	1	None		X	X	X								
14	759+70-0-2-99			1015														Hold
15	760+30-0-2-01			1040				X	X	X								
16	760+30-0-2-99			1040														Hold
17	762+00-0-2-01			1100				X	X	X								
18	762+00-0-2-99			1100														Hold
19	762+50-0-2-01			1110				X	X	X								
20	762+50-0-2-99			1110														Hold
21	764+40-0-2-01			1305				X	X	X								
22	764+40-0-2-99			1305														Hold
23	766+50-0-2-01			1320				X	X	X								
24	766+50-0-2-99			1320														Hold

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES: Hold all -99 samples for archive

REPORT LEVEL / QC REQUIRED: Summary (Standard QC); LEVEL II (Standard QC); LEVEL III (Std QC + forms); LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 202r9

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	MCaull	Megan Caull	6/14/19	1550
RECEIVED BY		Steve Keller	6/14/19	1550
RELINQUISHED BY		Steve Keller	6/14/19	1610
RECEIVED BY			6.14.19	1610
RELINQUISHED BY				
RECEIVED BY				

ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.
Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #			
1906326			
PAGE	3 of 3		
DISPOSAL	BY LAB	or	RETURN

		TURNAROUND TIME	Std	SAMPLER: MG SK
PROJECT NAME	Jeffco Parkway	SITE ID		
PROJECT No.	110963	EDD FORMAT	Envirodata 2012	
		PURCHASE ORDER	25197089	
COMPANY NAME	Engineering Analytics	BILL TO COMPANY	Terracon	
SEND REPORT TO	Jason Andrews	INVOICE ATTN TO	Mark White	
ADDRESS	1600 Specht Point rd Ste 209	ADDRESS	10625 W I70 Frontage rd Ste 3	
CITY / STATE / ZIP	Fort Collins CO 80524	CITY / STATE / ZIP	Wheat Ridge CO 80033	
PHONE	970 488 3111	PHONE	303 454 5208	
FAX		FAX	303 423 3353	
E-MAIL	JAndrews@enganalytics.com	E-MAIL	Mark.white@terracon.com	

PARAMETER/METHOD REQUEST FOR ANALYSIS

A	AM-241, ALS SOP 714
B	PU-238, PU-239/240, ALS SOP 714
C	U-234, U-235, U-238 ALS SOP 714
D	AM-241, ALS SOP 714
E	PU-238, PU 239/240, SOP 714 ALS
F	U-234, U-235, U-238, ALS SOP 714
G	
H	
I	
J	

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
25	766+70-0-2-01	S	6/14/19	1335	1	None		X	X	X								
26	766+70-0-2-99	S	6/14	1335	1	None												Hold
27	762+50-0-2-03	W	6/14/19	1115	3	HNO3					X	X	X					
28	767+30-0-2-01	S	6/14/19	1345	1	None		X	X	X								
29	767+30-0-2-99	↓	↓	1345	↓	↓												Hold
30	767+30-0-2-02	↓	↓	1345	↓	↓		X	X	X								
31	769+00-0-2-01	↓	↓	1415	↓	↓		X	X	X								
32	769+00-0-2-99	↓	↓	1415	↓	↓												Hold

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

Hold all -99 Samples for archive

REPORT LEVEL / QC REQUIRED	
	Summary (Standard QC)
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw

Form 202r9

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	[signature]	Stu Keller	6/14/19	1610
RECEIVED BY	[signature]	Keli [illegible]	6/14/19	1610
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Engineering Analytics Workorder No: 1906326

Project Manager: LRS Initials: Cm Date: 06.14.19

1.	Are airbills / shipping documents present and/or removable?	DROP OFF	YES	NO
2.	Are custody seals on **shipping** containers intact?	NONE	YES	NO *
3.	Are custody seals on **sample** containers intact?	NONE	YES	NO *
4.	Is there a COC (chain-of-custody) present?		YES	NO *
5.	Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		YES	NO *
6.	Are short-hold samples present?		YES	NO
7.	Are all samples within holding times for the requested analyses?		YES	NO *
8.	Were all sample containers received intact? (not broken or leaking)		YES	NO *
9.	Is there sufficient sample for the requested analyses?		YES	NO *
10.	Are all samples in the proper containers for the requested analyses?		YES	NO *
11.	Are all aqueous samples preserved correctly, if required? (excluding volatiles)	N/A	YES	NO *
12.	Are all aqueous non-preserved samples pH 4-9?	N/A	YES	NO *
13.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	N/A	YES	NO
14.	Were the samples shipped on ice?		YES	NO
15.	Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #1 #3 #4	RAD ONLY	YES	NO

Cooler #:	1	2						
Temperature (°C):	Amb.	Amb.						
No. of custody seals on cooler:	N/A	N/A						
DOT Survey/ Acceptance Information — External µR/hr reading:	↓	↓						
Background µR/hr reading:	10							

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? **YES / NO / NA** (If no, see Form 008.)

*** Please provide details here for NO responses to gray boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.**

All client bottle ID's vs ALS lab ID's double-checked by: Cm

If applicable, was the client contacted? **YES / NO / NA** Contact _____ Date/Time: _____

Project Manager Signature / Date: 6/15/19

Form 201r27.xls
(02/11/2019)

*IR Gun #1, VWR SN 170560549
*IR Gun #3, VWR SN 170647571
*IR Gun #4, Oakton, SN 2372220101-0002

Isotopic Plutonium by Alpha Spectroscopy

PAI 714 Rev 14

Method Blank Results

Lab Name: ALS -- Fort Collins
Work Order Number: 1906326
Client Name: Terracon Environmental, Inc.
ClientProject ID: Jefferson Parkway ROW 110963

Lab ID: AS190618-6MB

Sample Matrix: SOIL
Prep SOP: PAI 778 Rev 16
Date Collected: 18-Jun-19
Date Prepared: 18-Jun-19
Date Analyzed: 11-Jul-19

Prep Batch: AS190618-6
QCBatchID: AS190618-6-1
Run ID: AS190618-6PU
Count Time: 720 minutes

Final Aliquot: 2.00 g
Result Units: pCi/g
File Name: Spectrum #1

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Requested MDC	DL	Lab Qualifier
13981-16-3	Pu-238	0.0046 +/- 0.0084	0.0155	0.15	NA	U
10-12-8	Pu-239/240	0.0079 +/- 0.0096	0.0155	0.1	NA	U

Chemical Yield Summary

Carrier/Tracer	Amount Added	Result	Units	Yield	Control Limits	Flag
Pu-242	2.066	1.27	pCi/g	61.6	30 - 110 %	

Comments:

Qualifiers/Flags:
U - Result is less than the sample specific MDC.
Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
Y2 - Chemical Yield outside default limits.

Abbreviations:
TPU - Total Propagated Uncertainty
MDC - Sample specific Minimum Detectable Concentration
BDL - Below Detection Limit

M - Requested MDC not met.
B - Analyte concentration greater than MDC.
B3 - Analyte concentration greater than MDC but less than Requested MDC.
DL - Decision Level

Data Package ID: *PU1906326-1*

Isotopic Plutonium by Alpha Spectroscopy

PAI 714 Rev 14

Laboratory Control Sample(s)

Lab Name: ALS -- Fort Collins
Work Order Number: 1906326
Client Name: Terracon Environmental, Inc.
ClientProject ID: Jefferson Parkway ROW 110963

Lab ID: AS190618-6LCS

Sample Matrix: SOIL
Prep SOP: PAI 778 Rev 16
Date Collected: 18-Jun-19
Date Prepared: 18-Jun-19
Date Analyzed: 11-Jul-19

Prep Batch: AS190618-6
QCBatchID: AS190618-6-1
Run ID: AS190618-6PU
Count Time: 720 minutes

Final Aliquot: 2.00 g
Result Units: pCi/g
File Name: Spectrum #1

CASNO	Target Nuclide	Results +/- 2s TPU	MDC	Spike Added	% Rec	Control Limits	Lab Qualifier
10-12-8	Pu-239/240	2.49 +/- 0.41	0.01	2.277	110	82 - 118	P

Chemical Yield Summary

Carrier/Tracer	Amount Added	Result	Units	Yield	Control Limits	Flag
Pu-242	2.066	1.37	pCi/g	66.4	30 - 110 %	

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS Recovery within control limits.

M - The requested MDC was not met.

M3 - The requested MDC was not met, but thereported activity is greater than the reported MDC.

Abbreviations:

TPU - Total Propagated Uncertainty

MDC - Minimum Detectable Concentration

Data Package ID: *PU1906326-1*

Isotopic Plutonium by Alpha Spectroscopy

PAI 714 Rev 14

Sample Results

Lab Name: ALS -- Fort Collins
Work Order Number: 1906326
Client Name: Terracon Environmental, Inc.
ClientProject ID: Jefferson Parkway ROW 110963

Field ID: 766+50-0-2-01
Lab ID: 1906326-23

Sample Matrix: SOIL
Prep SOP: PAI 778 Rev 16
Date Collected: 14-Jun-19
Date Prepared: 18-Jun-19
Date Analyzed: 11-Jul-19

Prep Batch: AS190618-6
QCBatchID: AS190618-6-1
Run ID: AS190618-6PU
Count Time: 720 minutes
Report Basis: Dry Weight

Final Aliquot: 1.03 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: Spectrum #1

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Requested MDC	DL	Lab Qualifier
13981-16-3	Pu-238	3.68 +/- 0.61	0.01	0.15	NA	
10-12-8	Pu-239/240	264 +/- 41	0	0.1	NA	

Chemical Yield Summary

Carrier/Tracer	Amount Added	Result	Units	Yield	Control Limits	Flag
Pu-242	4.027	2.88	pCi/g	71.6	30 - 110 %	

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty

MDC - Sample specific Minimum Detectable Concentration

BDL - Below Detection Limit

DL - Decision Level

Data Package ID: *PU1906326-1*

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1906326
Client Name: Terracon Environmental, Inc.
Client Project Name: Jefferson Parkway ROW
Client Project Number: 110963
Client PO Number: 25197089

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
753+30-0-2-01	1906326-1		SOIL	14-Jun-19	8:45
753+30-0-2-99	1906326-2		SOIL	14-Jun-19	8:45
753+80-0-2-01	1906326-3		SOIL	14-Jun-19	9:00
753+80-0-2-99	1906326-4		SOIL	14-Jun-19	9:00
754+40-0-2-01	1906326-5		SOIL	14-Jun-19	9:15
754+40-0-2-99	1906326-6		SOIL	14-Jun-19	9:15
755+00-0-2-01	1906326-7		SOIL	14-Jun-19	9:25
755+00-0-2-99	1906326-8		SOIL	14-Jun-19	9:25
755+50-0-2-01	1906326-9		SOIL	14-Jun-19	9:40
755+50-0-2-99	1906326-10		SOIL	14-Jun-19	9:40
759+10-0-2-01	1906326-11		SOIL	14-Jun-19	10:00
759+10-0-2-99	1906326-12		SOIL	14-Jun-19	10:00
759+70-0-2-01	1906326-13		SOIL	14-Jun-19	10:15
759+70-0-2-99	1906326-14		SOIL	14-Jun-19	10:15
760+30-0-2-01	1906326-15		SOIL	14-Jun-19	10:40
760+30-0-2-99	1906326-16		SOIL	14-Jun-19	10:40
762+00-0-2-01	1906326-17		SOIL	14-Jun-19	11:00
762+00-0-2-99	1906326-18		SOIL	14-Jun-19	11:00
762+50-0-2-01	1906326-19		SOIL	14-Jun-19	11:10
762+50-0-2-99	1906326-20		SOIL	14-Jun-19	11:10
764+40-0-2-01	1906326-21		SOIL	14-Jun-19	13:05
764+40-0-2-99	1906326-22		SOIL	14-Jun-19	13:05
766+50-0-2-01	1906326-23		SOIL	14-Jun-19	13:20
766+50-0-2-99	1906326-24		SOIL	14-Jun-19	13:20
766+70-0-2-01	1906326-25		SOIL	14-Jun-19	13:35
766+70-0-2-99	1906326-26		SOIL	14-Jun-19	13:35
762+50-0-2-03	1906326-27		WATER	14-Jun-19	11:15
767+30-0-2-01	1906326-28		SOIL	14-Jun-19	13:45
767+30-0-2-99	1906326-29		SOIL	14-Jun-19	13:45
767+30-0-2-02	1906326-30		SOIL	14-Jun-19	13:45
769+00-0-2-01	1906326-31		SOIL	14-Jun-19	14:15
769+00-0-2-99	1906326-32		SOIL	14-Jun-19	14:15

ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524

TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #	1906326
PAGE	1 of 3
DISPOSAL	BY LAB or RETURN

		TURNAROUND TIME	Std
		SAMPLER	MC, SK
PROJECT NAME	Jeffco Parkway	SITE ID	
PROJECT No.	110963	EDD FORMAT	Envirodata 2012
		PURCHASE ORDER	25197089
COMPANY NAME	Engineering Analytics	BILL TO COMPANY	Terracon
SEND REPORT TO	Jason Andrews	INVOICE ATTN TO	Mark White
ADDRESS	1600 Specht Point rd	ADDRESS	10625 W I-70 Frontage rd Ste 3
CITY / STATE / ZIP	Fort Collins CO 80524	CITY / STATE / ZIP	Wheat Ridge CO 80033
PHONE	970 488 3111	PHONE	303 454 5208
FAX		FAX	303 423 3353
E-MAIL	JAndrews@enganalytics.com	E-MAIL	mark.white@terracon.com

PARAMETER/METHOD REQUEST FOR ANALYSIS

A	AM-241, ALS SOP 714
B	PU-238, PU-239/240, ALS SOP 714
C	U-234, U-235, U-238 ALS SOP 714
D	
E	
F	
G	
H	
I	
J	

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
1	753+30-0-2-01	S	6/14/19	0845	1	None		X	X	X								
2	753+30-0-2-99	↓	↓	0845	↓	↓												Hold
3	753+80-0-2-01	↓	↓	0900	↓	↓		X	X	X								
4	753+80-0-2-99	↓	↓	0900	↓	↓												Hold
5	754+40-0-2-01	↓	↓	0915	↓	↓		X	X	X								
6	754+40-0-2-99	↓	↓	0915	↓	↓												Hold
7	755+00-0-2-01	↓	↓	0925	↓	↓		X	X	X								
8	755+00-0-2-99	↓	↓	0925	↓	↓												Hold
9	755+50-0-2-01	↓	↓	0940	↓	↓		X	X	X								
10	755+50-0-2-99	↓	↓	0940	↓	↓												Hold
11	759+10-0-2-01	↓	↓	1000	↓	↓		X	X	X								
12	759+10-0-2-01	↓	↓	1000	↓	↓												Hold

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

Hold all -99 Samples for Archive

REPORT LEVEL / QC REQUIRED	
	Summary (Standard QC)
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw

Form 202r9

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	[illegible]	[illegible]	6/14/19	1610
RECEIVED BY	[illegible]	[illegible]	6/14/19	1610
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #: 1906326

PAGE: 2 of 3

DISPOSAL: BY LAB or RETURN

PROJECT NAME	Jeffco Parkway	TURNAROUND TIME	Std
PROJECT No.	110963	SITE ID	
		EDD FORMAT	
		PURCHASE ORDER	25197089
COMPANY NAME	Engineering Analytics	BILL TO COMPANY	Terracon
SEND REPORT TO	Jason Andrews	INVOICE ATTN TO	Mark White
ADDRESS	1600 Specht Point rd ste 209	ADDRESS	10625 W-I-70 Frontage rd ste 3
CITY / STATE / ZIP	Fort Collins, CO 80524	CITY / STATE / ZIP	Wheat Ridge CO 80033
PHONE	970 488 3111	PHONE	303 454 5208
FAX		FAX	303 423 3353
E-MAIL	JAndrews@enganalytics.com	E-MAIL	mark.white@terracon.com
		SAMPLER	M.C, SK

PARAMETER/METHOD REQUEST FOR ANALYSIS

A	Am-241 ALS SOP 714
B	Pu-238, Pu-239/240, ALS SOP 714
C	U-234, U-235, U-238 ALS SOP 714
D	
E	
F	
G	
H	
I	
J	

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
13	759+70-02-01	S	6/14/19	1015	1	None		X	X	X								
14	759+70-0-2-99			1015														Hold
15	760+30-0-2-01			1040				X	X	X								
16	760+30-0-2-99			1040														Hold
17	762+00-0-2-01			1100				X	X	X								
18	762+00-0-2-99			1100														Hold
19	762+50-0-2-01			1110				X	X	X								
20	762+50-0-2-99			1110														Hold
21	764+40-0-2-01			1305				X	X	X								
22	764+40-0-2-99			1305														Hold
23	766+50-0-2-01			1320				X	X	X								
24	766+50-0-2-99			1320														Hold

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES: Hold all -99 samples for archive

REPORT LEVEL / QC REQUIRED

- Summary (Standard QC)
- LEVEL II (Standard QC)
- LEVEL III (Std QC + forms)
- LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 202r9

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Meaull	Megan Caudill	6/14/19	1550
RECEIVED BY		Steve Keller	6/14/19	1550
RELINQUISHED BY		Steve Keller	6/14/19	1610
RECEIVED BY			6-14-19	1610
RELINQUISHED BY				
RECEIVED BY				

ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #: 1906326

PAGE: 3 of 3

DISPOSAL: BY LAB or RETURN

TURNAROUND TIME	Std	SAMPLER	MG, SK
SITE ID			
EDD FORMAT	Enviodata 2012		
PURCHASE ORDER	2519708 9		

PROJECT NAME	Jeffco Parkway	BILL TO COMPANY	Terracon
PROJECT No.	110963	INVOICE ATTN TO	Mark White
COMPANY NAME	Engineering Analytics	ADDRESS	10625 W I70 Frontage rd Ste 3
SEND REPORT TO	Jason Andrews	CITY / STATE / ZIP	Wheat Ridge CO 80033
ADDRESS	1600 Specht Point rd Ste 209	PHONE	303 454 5208
CITY / STATE / ZIP	Fort Collins CO 80524	FAX	303 423 3353
PHONE	970 488 3111	E-MAIL	Mark.white@terracon.com
FAX			
E-MAIL	JAndrews@engeanalytics.com		

PARAMETER/METHOD REQUEST FOR ANALYSIS

A	AM-241, ALS Sop 714
B	PU-238, PU-239/240, ALS Sop 714
C	U-234, U-235, U-238, ALS Sop 714
D	AM-241, ALS Sop 714
E	PU-238, PU 239/240, Sop 714 ALS
F	U-234, U-235, U-238, ALS Sop 714
G	
H	
I	
J	

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
25	766+70-0-2-01	S	6/14/19	1335	1	None		X	X	X								
26	766+70-0-2-99	S	6/14	1335	1	None												Hold
27	762+50-0-2-03	W	6/14/19	1115	3	HNO_3					X	X	X					
28	767+30-0-2-01	S	6/14/19	1345	1	None		X	X	X								
29	767+30-0-2-99	↓	↓	1345	↓	↓												Hold
30	767+30-0-2-02			1345				X	X	X								
31	769+00-0-2-01			1415				X	X	X								
32	769+00-0-2-99	↓	↓	1415	↓	↓												Hold

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES: Hold all -99 Samples for archive

REPORT LEVEL / QC REQUIRED

- Summary (Standard QC)
- LEVEL II (Standard QC)
- LEVEL III (Std QC + forms)
- LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-NaOH/ZnAcetate 6-$NaHSO_4$ 7-4°C 8-Other

Form 202r9

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Steve Keller	6/14/19	1610
RECEIVED BY		Keli Jean Sue	6/14/19	1610
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Engineering Analytics Workorder No: 1906326

Project Manager: LRS Initials: EM Date: 06.14.19

1.	Are airbills / shipping documents present and/or removable?	DROP OFF	YES	NO
2.	Are custody seals on **shipping** containers intact?	NONE	YES	NO *
3.	Are custody seals on **sample** containers intact?	NONE	YES	NO *
4.	Is there a COC (chain-of-custody) present?		YES	NO *
5.	Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		YES	NO *
6.	Are short-hold samples present?		YES	NO
7.	Are all samples within holding times for the requested analyses?		YES	NO *
8.	Were all sample containers received intact? (not broken or leaking)		YES	NO *
9.	Is there sufficient sample for the requested analyses?		YES	NO *
10.	Are all samples in the proper containers for the requested analyses?		YES	NO *
11.	Are all aqueous samples preserved correctly, if required? (excluding volatiles)	N/A	YES	NO *
12.	Are all aqueous non-preserved samples pH 4-9?	N/A	YES	NO *
13.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	N/A	YES	NO
14.	Were the samples shipped on ice?		YES	NO
15.	Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #1 #3 #4	RAD ONLY	YES	NO

Cooler #:	1	2							
Temperature (°C):	Amb.	Amb.							
~~No. of custody seals on cooler:~~	N/A	N/A							
DOT Survey/ Acceptance Information: External µR/hr reading:	↓	↓							
Background µR/hr reading:	10								

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? **YES / NO / NA** (If no, see Form 008.)

*** Please provide details here for NO responses to gray boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.**

All client bottle ID's vs ALS lab ID's double-checked by: EM

If applicable, was the client contacted? **YES / NO / NA** Contact: _____ Date/Time: _____

Project Manager Signature / Date: 6/15/19

Form 201r27.xls
(02/11/2019)

*IR Gun #1, VWR SN 170560549
*IR Gun #3, VWR SN 170647571
*IR Gun #4, Oakton, SN 2372220101-0002

SiteName	StationNar	SampleDa	SampleTy	SampleMa	SampleTo	SampleBo	DepthUnits	Duplicate	FieldSamp
	766+50-0-	06/14/2019	13:20	SOIL			Unknown	0	766+50-0-
	766+50-0-	06/14/2019	13:20	SOIL			Unknown	0	766+50-0-
	766+50-0-	06/14/2019	13:20	SOIL			Unknown	0	766+50-0-
	Lab QC	06/18/2019	12:00	SOIL			Unknown	0	AS190618
	Lab QC	06/18/2019	12:00	SOIL			Unknown	0	AS190618
	Lab QC	06/18/2019	12:00	SOIL			Unknown	0	AS190618
	Lab QC	06/18/2019	12:00	SOIL			Unknown	0	AS190618
	Lab QC	06/18/2019	12:00	SOIL			Unknown	0	AS190618

SampleMe	LogCode	DeliveryGr	FilteredSa	QCSample	TaskNumb	CoolerTen	GeologicU	LithologyC	SampleEv
Pe		1906326	N	z		z	z		0
Pe		1906326	N	z		z	z		0
Pe		1906326	N	z		z	z		0
Pe		1906326	N	MB		z	z		0
Pe		1906326	N	MB		z	z		0
Pe		1906326	N	MB		z	z		0
Pe		1906326	N	RM		z	z		0
Pe		1906326	N	RM		z	z		0

SamplePu	SampleSo	Parameter	CASNumb	Superseda	AnalyticMe	Value	Reportingl	FlagCode	ProblemCo
z	field	Pu-238	13981-16-	0	714R14	3.68	pCi/g	v	z
z	field	Pu-242	13982-10-	0	714R14	2.88	pCi/g	v	z
z	field	Pu-239/24	10-12-8	0	714R14	264	pCi/g	v	z
z	lab	Pu-238	13981-16-	0	714R14	0.0046	pCi/g	u	z
z	lab	Pu-242	13982-10-	0	714R14	1.27	pCi/g	v	z
z	lab	Pu-239/24	10-12-8	0	714R14	0.0079	pCi/g	u	z
z	lab	Pu-242	13982-10-	0	714R14	66.4	%	v	z
z	lab	Pu-239/24	10-12-8	0	714R14	110	%	p	z

Validation	DetectedR	Detect	LimitType	Detect2	LimitType2	Detect3	LimitType3	Detect4	LimitType4
z	y	0.01	MDC		MDL				
z	y	0.01	MDC		MDL				
z	y	0	MDC		MDL				
z	n	0.0155	MDC		MDL				
z	y	0.01	MDC		MDL				
z	n	0.0155	MDC		MDL				
z	y	0.01	MDC		MDL				
z	y	0.01	MDC		MDL				

Detect5	LimitType5	SpikeAmo	Retention1	Error	DilutionFa	Basis	FilteredAn	LeachMetl	PrepMetho
				0.61		d	N	None	778R16
		4.027		0.45		d	N	None	778R16
				41		d	N	None	778R16
				0.0084		w	N	None	778R16
		2.066		0.2		w	N	None	778R16
				0.0096		w	N	None	778R16
		2.066		0.22		w	N	None	778R16
		2.277		0.41		w	N	None	778R16

Preparatio	Reportable	AnalDate_	ExtractDat	LabReport	LabRecvD	Lab	LabComm	AnalysisLa	AnalyticalE
AS190618-6		07/11/201!	06/18/2019		06/14/201!	ALS-FC		0	AS190618
AS190618-6		07/11/201!	06/18/2019		06/14/201!	ALS-FC		0	AS190618
AS190618-6		07/11/201!	06/18/2019		06/14/201!	ALS-FC		0	AS190618
AS190618-6		07/11/201!	06/18/2019		06/14/201!	ALS-FC		0	AS190618
AS190618-6		07/11/201!	06/18/2019		06/14/201!	ALS-FC		0	AS190618
AS190618-6		07/11/201!	06/18/2019		06/14/201!	ALS-FC		0	AS190618
AS190618-6		07/11/201!	06/18/2019		06/14/201!	ALS-FC		0	AS190618
AS190618-6		07/11/201!	06/18/2019		06/14/201!	ALS-FC		0	AS190618

ValueCod	RunCode	QCAnalys	AnalysisG	AnalysisLc	BatchType	ExpectedV	Extracted	LabMatrix(	LabPrepDa
O	OR	TAR		LB	a				06/18/201
O	OR	Z		LB	a	4.027			06/18/201
O	OR	TAR		LB	a				06/18/201
O	OR	TAR		LB	a				06/18/201
O	OR	Z		LB	a	2.066			06/18/201
O	OR	TAR		LB	a				06/18/201
O	OR	Z		LB	a	2.066			06/18/201
O	OR	TAR		LB	a	2.277			06/18/201

LabReport	LabSampl	MethodBa	NumberDe	PercentRe	PrepBatch	PreserveIr	RunBatch	StatTypeC	StdRefMat
∋	1906326-2	AS190618-6PU			AS190618-6		AS190618	r	
∋	1906326-2	AS190618-6PU		71.6	AS190618-6		AS190618	r	
∋	1906326-2	AS190618-6PU			AS190618-6		AS190618	r	
∋	AS190618	AS190618-6PU			AS190618-6		AS190618	r	
∋	AS190618	AS190618-6PU		61.6	AS190618-6		AS190618	r	
∋	AS190618	AS190618-6PU			AS190618-6		AS190618	r	
∋	AS190618	AS190618-6PU		66.4	AS190618-6		AS190618	r	
∋	AS190618	AS190618-6PU		110	AS190618-6		AS190618	r	

Subcontra	Validation(	Validator	ValueType	WeightVol	WeightVol	UpperCon	LowerCon	Rejection(	RPDLimit
			a	1.03	g				
			a	1.03	g	110	30		
			a	1.03	g				
			a	2	g				
			a	2	g	110	30		
			a	2	g				
			a	2	g	110	30		
			a	2	g	118	82		

RPD APDLimit

JEFFERSON
PARKWAY

JEFFERSON PARKWAY
Executive Session Board Briefing
August 15, 2019

JEFFERSON PARKWAY

Soil Sampling Overview

- Methodology & Process
  - Derived from Rocky Mountain Greenway project through Rocky Flats National Wildlife Refuge
- Initiated by the Authority to establish baseline conditions
- Testing began in May and analysis will conclude in Q4 2019

JEFFERSON PARKWAY

Soil Sampling Overview

- Approximately 249 soil samples from 212 locations were taken in the Jefferson Parkway right of way
- 2.5 mile section between 96th Avenue and north of Walnut Creek are being analyzed.
- Samples were collected every 3/10th of an acre in two phases

JEFFERSON PARKWAY

Phase I Soil Sampling Overview

- Two (2) soil samples collected from 20 different locations (40 samples total)
- Depths of 0-2” and 6-8”
- Final results delivered to JPPHA on June 13, 2019

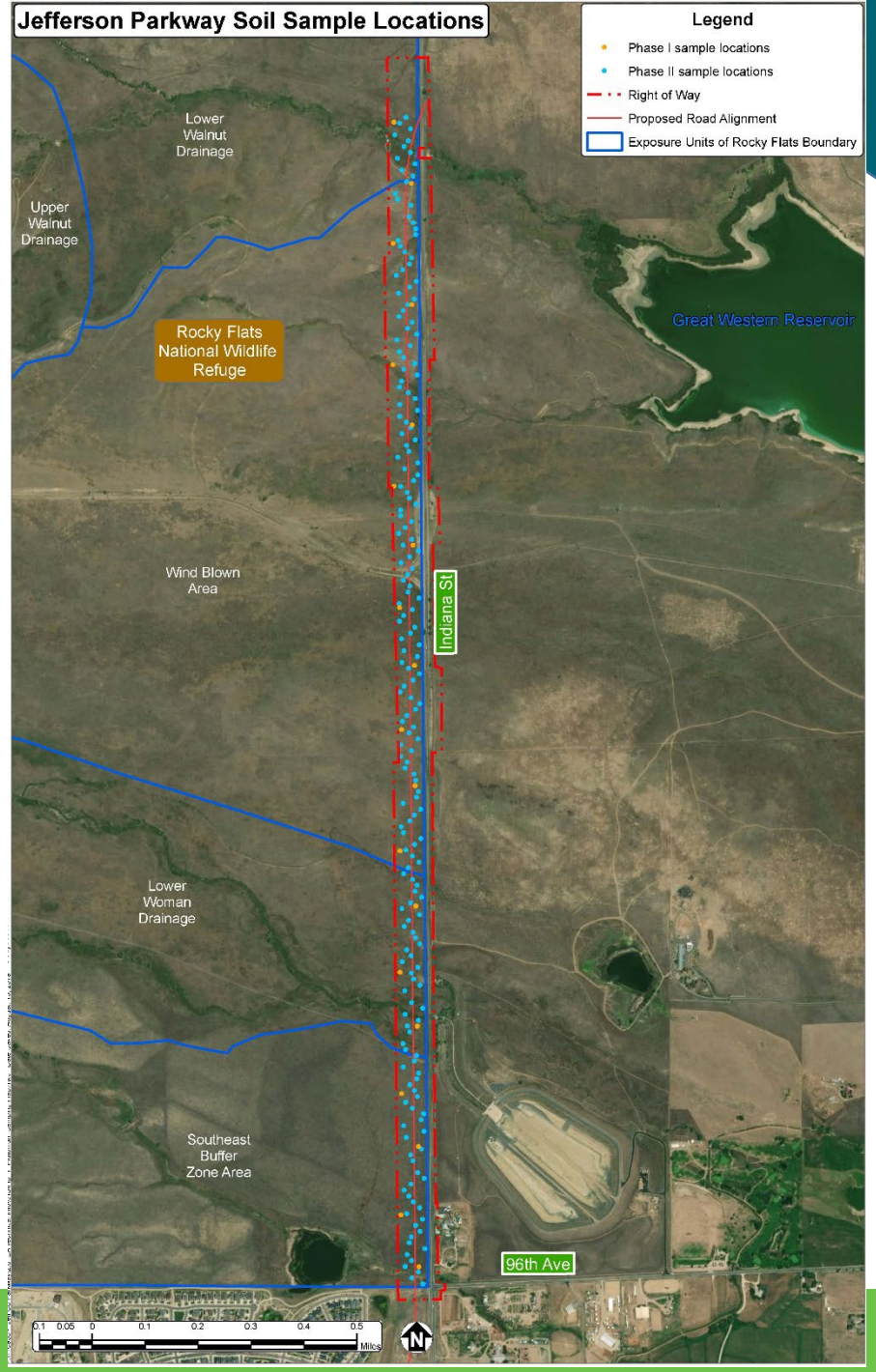
JEFFERSON PARKWAY

Phase II Soil Sampling Overview

- 203 samples collected by June 19 at 193 different locations
- Depths of 0-2”
- First batch of preliminary results shared with JPPHA July 29, 2019
- Follow-up testing occurring in July/August with results in early September
- Initial analysis of all Phase II samples to be completed in Q4 2019

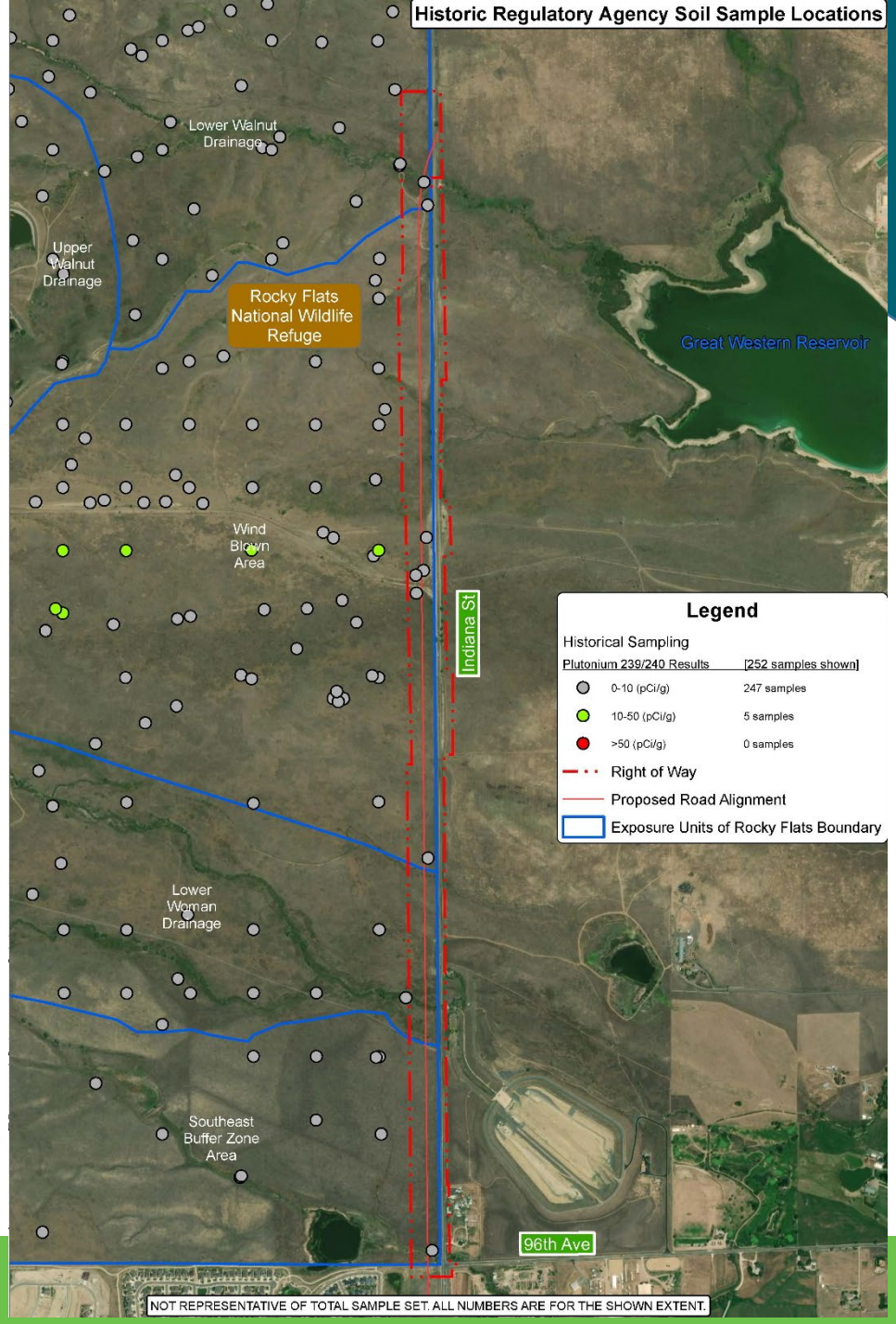
JEFFERSON PARKWAY

Phase I & II
Soil Sample Locations



JEFFERSON PARKWAY

Historic Regulatory Agency Soil Sample Locations



COLORADO
Department of Public Health & Environment

June 14, 2019

Mr. Bill Ray
Executive Director
Jefferson Parkway Public Highway Authority
P.O. Box 1108
Arvada, CO 80001-1108

Sent via email to jppha.admin@gmail.com

Dear Mr. Ray:

Thank you for consulting with the Colorado Department of Public Health and Environment (CDPHE) about the Jefferson Parkway Public Highway Authority's ("Parkway Authority") project.

After this consultation, CDPHE's Radiation Program and the Colorado Attorney's General Office have determined the Parkway Authority is not subject to the requirements of Radiation Program Regulation 4.60.1, 6 CCR 1007-1, Part 4, because the Parkway Authority is not licensed or registered under the Colorado Radiation Control Act. In addition, the 2006 *Corrective Action Decision/Record of Decision* for the Rocky Flats Plant (USDOE) Peripheral Operable Unit and Central Operable Unit determined the Peripheral Operable Unit[1] (which includes the Parkway Authority's right-of-way area) was suitable for unrestricted use and unlimited exposure. What this means is that, while there are small amounts of plutonium in the surface soil, these levels are within regulatory limits and the area can be used as a transportation corridor.

However, CDPHE has heard concerns about the Parkway Authority's project from members of the community. To address these concerns and assure minimal impact, CDPHE's various Divisions and Programs have certain requirements (described below) and recommend the Parkway Authority use the following best practices should construction move forward.

The Parkway Authority will be required to secure a construction permit for dust pursuant to Colorado Air Quality Control Commission Regulations 1 and 3. The Land Development APEN Form APCD-223 and guidance document can be found here:

https://www.colorado.gov/pacific/cdphe/air/air-permit.
Under Colorado air quality regulations, land development refers to all land disturbance activities for the purpose of land development, including but not limited to activities such as excavating or grading, for residential, commercial or industrial development. Land development activities release fugitive dust, a pollutant regulated by the Division. Land development activities greater

[1] Available on-line at https://www.lm.doe.gov/Rocky_Flats/Regulations.aspx.

than 25 contiguous acres will require reporting and a construction permit. Fugitive dust control techniques commonly used are included in the table below.

Control Options for Unpaved Roadways	
Watering	Use of chemical stabilizer
Paving	Controlling vehicle speed
Graveling	
Control Options for Mud and Dirt Carry-Out Onto Paved Surfaces	
Gravel entryways	Washing vehicle wheels
Covering the load	Not overfilling trucks
Control Options for Disturbed Areas	
Watering	Application of a chemical stabilizer
Revegetation	Controlling vehicle speed
Compaction	Furrowing the soil
Wind Breaks	Minimizing the areas of disturbance
	Synthetic or Natural Cover for Slopes

The Water Quality Control Division has two general types of permits that most construction projects need to get from the Permits Section: (1) a Stormwater Associated with Construction Activity general permit and (2) a Construction Dewatering Discharges or Remediation Activities Discharging to Surface Water general permit. Information for these permits can be found at:

https://www.colorado.gov/pacific/cdphe/wq-construction-general-permits.

The determination on if the Parkway Authority will need coverage under a Construction Dewatering or the Remediation Activities general permit depends on the results from a groundwater sample. However, CDPHE recommends the Parkway Authority construct as if water permits applied, regardless of groundwater sampling. This would ensure that any discharges from their construction site do not pollute surface waters. It would also ensure the development and implementation of a stormwater management plan and control measures/best management practices for dewatering activities like bridge footings and stream crossings.

Additionally, CDPHE recommends radiological air monitoring to address community concerns. Specifically:

1) a best practice is to hire a consultant that employs a Health Physicist; and,

2) when sampling for plutonium in air, the following should be considered: interference with Radon Daughters on samples; special attention paid to detection limits (counting systems, volumes of air, as well as duration of sample collection need to be considered to ensure that ample constituents of concern are being collected and that the total amount of materials on an air filter would not prevent the plutonium alpha's from getting out of the sample for detection), and; special attention should be paid to particle size and appropriate filter selection.

The Department would like to speak with the Parkway Authority about the possibility of entering into a Memorandum of Understanding regarding implementation of recommended

best practices for construction of the Jefferson Parkway. Please contact me at (303) 692-3403 or jennifer.opila@state.co.us to arrange for a meeting.

For more details about permits, best practices, technical assistance, etc., please contact CDPHE's Air Pollution Control Division and Water Quality Control Division. For questions concerning air permits, please contact Matt Burgett, Acting Permit Section Supervisor, at 303-692-3183 or matt.burgett@state.co.us. For questions concerning water permits, please contact Lisa Knerr, Environmental Protection Specialist, at (303) 692-3004 or lisa.knerr@state.co.us.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Jennifer T. Opila

Jennifer T. Opila, MPA
Hazardous Materials and Waste Management Division Director
Colorado Department of Public Health & Environment

ec: Jill Hunsaker Ryan, Executive Director, CDPHE
Karin McGowan, Deputy Executive Director, CDPHE
Lisa Knerr, Environmental Protection Specialist, CDPHE
Mark McMillan, Stationary Sources Program Manager, CDPHE
Matt Burgett, Acting Permit Section Supervisor, CDPHE
James Grice, Radiation Control Program Manager, CDPHE
Lindsay Masters, Environmental Protection Specialist, CDPHE
Carrie Noteboom, First Assistant Attorney General, AGO
Daniel Miller, Senior Assistant Attorney General, AGO
HMWMD Records Center

ROCKY FLATS STEWARDSHIP COUNCIL

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Jefferson County ~ Boulder County ~ City and County of Broomfield ~ City of Arvada ~ City of Boulder
City of Golden ~ City of Northglenn ~ City of Thornton ~ City of Westminster ~ Town of Superior
League of Women Voters ~ Rocky Flats Cold War Museum ~ Rocky Flats Homesteaders
Kim Griffiths

MEMORANDUM

TO: Stewardship Council Board of Directors
FROM: Melissa Weakley
SUBJECT: DOE's Quarterly Report (1st Quarter 2019) Briefing
DATE: July 29, 2019

DOE will present an overview its Quarterly Report of Site Surveillance and Maintenance Activities for the First Quarter of 2019, which can accessed here: https://www.lm.doe.gov/Rocky_Flats/1Q19_RFS.pdf. This report includes information on the remedy-related surveillance, monitoring, and maintenance activities conducted at Rocky Flats during the first quarter (January 1 to March 31) of calendar year 2019. Quarterly Report highlights are included below.

- **Present Landfill (PLF)**: The PLF quarterly inspection was conducted on February 19, 2019, with an additional weather-related inspection on March 18, 2019. No issues were observed.
- **Original Landfill (OLF)**: The OLF monthly inspections were conducted on January 17, February 15, and March 18, 2019. The March 18 inspection was combined with a weather-related inspection.
    - During the January inspection, a few small holes measuring 0.5 to 2 inches in diameter were discovered along the old scarp line between berms 1A and 2 (see attached figure) and subsequently filled in. The holes did not reappear in the subsequent inspections in February and March.
    - The Seep 10 siphon was not operated in January and February; it was restarted on March 27th.
    - The temporary groundwater intercept system was not operated during this period.
- **Groundwater Treatment Systems (East Trenches Plume Treatment System, Mound Site Plume Collection System, Solar Ponds Plume Treatment System, and Present Landfill Treatment System):** Routine maintenance of all four systems was performed. No significant issues were noted.
- **Groundwater Monitoring:** Ten RFLMA monitoring locations were sampled during the 1st quarter (see attached figure). Results were generally consistent with previous data and will be evaluated as part of the annual report for 2019.
- **Surface Water Monitoring:** Forty-six (46) samples from 8 gaging stations and 11 grab sampling locations were collected and analyzed (see attached figure).
    - **Plutonium:** Point of Evaluation (POE) monitoring location SW027, at the end of the South Interceptor Ditch at the inlet to Pond C-2, was reportable for plutonium during the first quarter of 2019. The 12-month rolling averages for plutonium (0.159 pCi/L) exceeded the RFLMA standard (0.15 pCi/L), resulting in a reportable condition at SW027 from June 2018 through March 2019. Due to low flow, however, the 12-month rolling average values include

results from only a single composite sample collected on May 3–4, 2018. There has been no flow and, therefore, no additional samples collected at location SW027 during 2019 through March.

- All other analyte concentrations at RFLMA POE locations GS10, SW027, and SW093 remained below reportable condition levels throughout the first quarter of 2019. All analyte concentrations at RFLMA Point of Compliance (POC) locations WALPOC and WOMPOC remained below reportable condition levels throughout the first quarter of 2019.

Attached are a few selections from the quarterly report: Table of Contents, List of Figures and Appendices, a map of the Original Landfill; and a map showing surface water and groundwater monitoring locations. After the figures is a table containing the analytical results for water samples collected in the first quarter of 2019.

Attachments

First Quarter 2019 Report Cover Page, Table of Contents, and Abbreviations
Original Landfill Figure
Rocky Flats Site Water Monitoring Location Figure
Analytical Results for Water Sampling

LMS/RFS/S25989

Rocky Flats Site, Colorado, Quarterly Report of Site Surveillance and Maintenance Activities First Quarter Calendar Year 2019

July 2019

U.S. DEPARTMENT OF ENERGY | Legacy Management

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Abbreviations

Am	americium
AMP	Adaptive Management Plan
AOC	Area of Concern
BMP	best management practice
CAD/ROD	Corrective Action Decision/Record of Decision
COU	Central Operable Unit
CY	calendar year
DOE	U.S. Department of Energy
EPC	East Perimeter Channel
ESSD	East Subsurface Drain
ETPTS	East Trenches Plume Treatment System
ICs	institutional controls
ITS	Interceptor Trench System
ITSS	Interceptor Trench System Sump
LM	Office of Legacy Management
µg/L *or* ug/L	micrograms per liter
mg/L	milligrams per liter
MSPCS	Mound Site Plume Collection System
N	nitrogen
NWCS	North Walnut Creek Slump
OLF	Original Landfill
pCi/L	picocuries per liter
PLF	Present Landfill
PLFTS	Present Landfill Treatment System
POC	Point of Compliance
POE	Point of Evaluation
Pu	plutonium
RCRA	Resource Conservation and Recovery Act
RFLMA	*Rocky Flats Legacy Management Agreement*
RFSOG	*Rocky Flats Site, Colorado, Site Operations Guide*
SPPTS	Solar Ponds Plume Treatment System

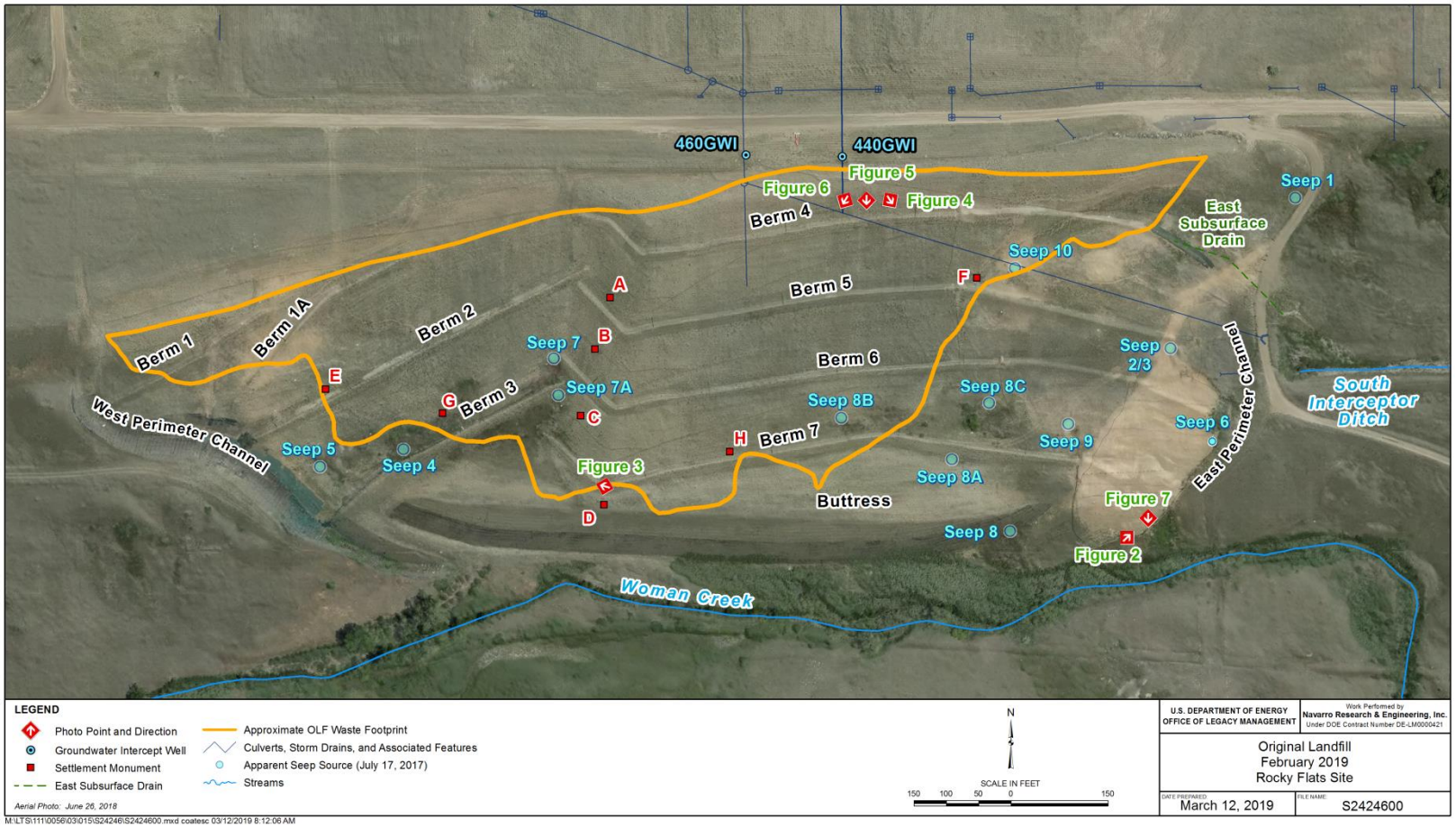

Figure 1: OLF key features and the location and direction for all report photographs, Rocky Flats Site, Colorado

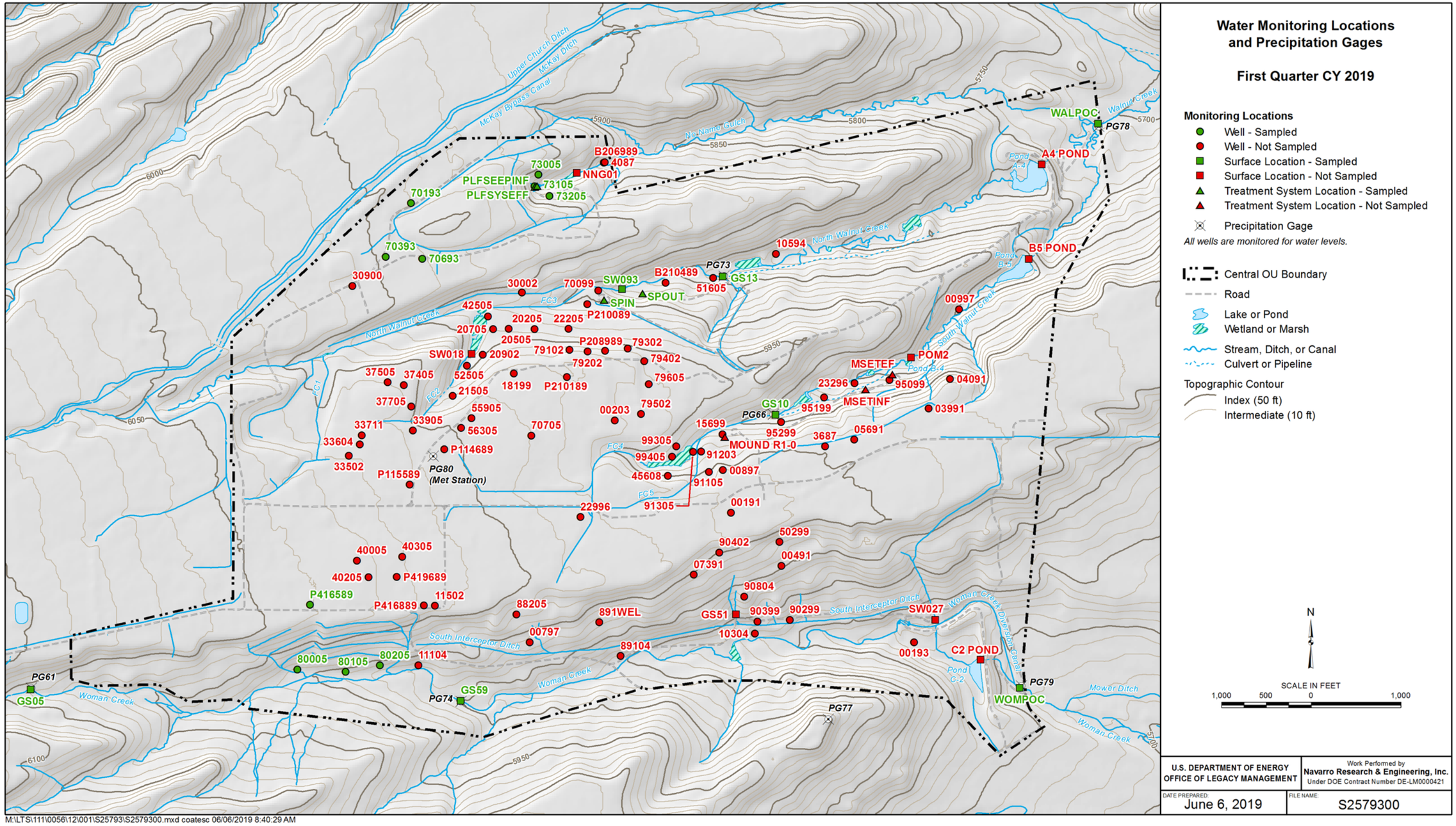

Figure 1. Rocky Flats Site Water Monitoring Locations and Precipitation Gages

RFLMA Data

LOCATION_CODE	LOCATION_TYPE	DATE SAMPLED	SAMPLE CODE	CAS	ANALYTE	FILTRATION STATUS	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS
70193	WL	1/30/2019	RFS01-10.1901010-001	71-55-6	1,1,1-Trichloroethane	N	0.16	ug/L	U	F	0.16		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	79-34-5	1,1,2,2-Tetrachloroethane	N	0.21	ug/L	U	F	0.21		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	79-00-5	1,1,2-Trichloroethane	N	0.27	ug/L	U	F	0.27		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	75-35-4	1,1-Dichloroethene	N	0.23	ug/L	U	F	0.23		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	120-82-1	1,2,4-Trichlorobenzene	N	0.21	ug/L	U	F	0.21		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	95-50-1	1,2-Dichlorobenzene	N	0.15	ug/L	U	F	0.15		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	107-06-2	1,2-Dichloroethane	N	0.13	ug/L	U	F	0.13		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	78-87-5	1,2-Dichloropropane	N	0.18	ug/L	U	F	0.18		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	541-73-1	1,3-Dichlorobenzene	N	0.13	ug/L	U	F	0.13		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	106-46-7	1,4-Dichlorobenzene	N	0.16	ug/L	U	F	0.16		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	7440-38-2	Arsenic	Y	0.33	ug/L	U	F	0.33		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	71-43-2	Benzene	N	0.16	ug/L	U	F	0.16		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	7440-41-7	Beryllium	Y	0.08	ug/L	U	F	0.08		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	7440-42-8	Boron	Y	19	ug/L		F	4.4		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	75-25-2	Bromoform	N	0.19	ug/L	U	F	0.19		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	7440-43-9	Cadmium	Y	0.27	ug/L	U	F	0.27		FJQ
70193	WL	1/30/2019	RFS01-10.1901010-001	56-23-5	Carbon tetrachloride	N	0.19	ug/L	U	F	0.19		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	108-90-7	Chlorobenzene	N	0.17	ug/L	U	F	0.17		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	67-66-3	Chloroform	N	0.16	ug/L	U	F	0.16		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	74-87-3	Chloromethane	N	0.3	ug/L	U	F	0.3		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	7440-47-3	Chromium	Y	0.5	ug/L	U	F	0.5		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	156-59-2	cis-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	7440-50-8	Copper	Y	0.56	ug/L	U	F	0.56		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	100-41-4	Ethylbenzene	N	0.16	ug/L	U	F	0.16		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	87-68-3	Hexachlorobutadiene	N	0.36	ug/L	U	F	0.36		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	7439-92-1	Lead	Y	0.18	ug/L	U	F	0.18		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	7439-97-6	Mercury	Y	0.027	ug/L	U	F	0.027		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	75-09-2	Methylene chloride	N	0.32	ug/L	U	F	0.32		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	91-20-3	Naphthalene	N	0.22	ug/L	U	F	0.22		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	7440-02-0	Nickel	Y	0.3	ug/L	U	F	0.3		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	7782-49-2	Selenium	Y	6	ug/L		F	0.7		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	7440-22-4	Silver	Y	0.033	ug/L	U	F	0.033		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	100-42-5	Styrene	N	0.17	ug/L	U	F	0.17		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	127-18-4	Tetrachloroethene	N	0.2	ug/L	U	F	0.2		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	108-88-3	Toluene	N	0.17	ug/L	U	F	0.17		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	1330-20-7	Total Xylenes	N	0.19	ug/L	U	F	0.19		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	156-60-5	trans-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	79-01-6	Trichloroethene	N	0.16	ug/L	U	F	0.16		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	7440-61-1	Uranium	Y	0.087	ug/L	J	F	0.05		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	75-01-4	Vinyl chloride	N	0.1	ug/L	U	F	0.1		FQ
70193	WL	1/30/2019	RFS01-10.1901010-001	7440-66-6	Zinc	Y	2	ug/L	U	F	2		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	71-55-6	1,1,1-Trichloroethane	N	0.16	ug/L	U	F	0.16		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	79-34-5	1,1,2,2-Tetrachloroethane	N	0.21	ug/L	U	F	0.21		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	79-00-5	1,1,2-Trichloroethane	N	0.27	ug/L	U	F	0.27		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	75-35-4	1,1-Dichloroethene	N	1.8	ug/L		F	0.23		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	120-82-1	1,2,4-Trichlorobenzene	N	0.21	ug/L	U	F	0.21		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	95-50-1	1,2-Dichlorobenzene	N	0.15	ug/L	U	F	0.15		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	107-06-2	1,2-Dichloroethane	N	0.13	ug/L	U	F	0.13		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	78-87-5	1,2-Dichloropropane	N	0.18	ug/L	U	F	0.18		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	541-73-1	1,3-Dichlorobenzene	N	0.13	ug/L	U	F	0.13		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	106-46-7	1,4-Dichlorobenzene	N	0.16	ug/L	U	F	0.16		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	7440-38-2	Arsenic	Y	0.33	ug/L	U	F	0.33		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	71-43-2	Benzene	N	0.16	ug/L	U	F	0.16		FQ

RFLMA Data

LOCATION_CODE	LOCATION_TYPE	DATE SAMPLED	SAMPLE CODE	CAS	ANALYTE	FILTRATION STATUS	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS
70393	WL	1/30/2019	RFS01-10.1901010-002	7440-41-7	Beryllium	Y	0.12	ug/L	J	F	0.08		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	7440-42-8	Boron	Y	5.3	ug/L	J	F	4.4		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	75-25-2	Bromoform	N	0.19	ug/L	U	F	0.19		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	7440-43-9	Cadmium	Y	0.27	ug/L	U	F	0.27		FJQ
70393	WL	1/30/2019	RFS01-10.1901010-002	56-23-5	Carbon tetrachloride	N	0.19	ug/L	U	F	0.19		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	108-90-7	Chlorobenzene	N	0.17	ug/L	U	F	0.17		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	67-66-3	Chloroform	N	0.16	ug/L	U	F	0.16		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	74-87-3	Chloromethane	N	0.3	ug/L	U	F	0.3		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	7440-47-3	Chromium	Y	0.5	ug/L	U	F	0.5		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	156-59-2	cis-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	7440-50-8	Copper	Y	0.56	ug/L	U	F	0.56		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	100-41-4	Ethylbenzene	N	0.16	ug/L	U	F	0.16		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	87-68-3	Hexachlorobutadiene	N	0.36	ug/L	U	F	0.36		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	7439-92-1	Lead	Y	0.18	ug/L	U	F	0.18		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	7439-97-6	Mercury	Y	0.027	ug/L	U	F	0.027		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	75-09-2	Methylene chloride	N	0.32	ug/L	U	F	0.32		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	91-20-3	Naphthalene	N	0.22	ug/L	U	F	0.22		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	7440-02-0	Nickel	Y	1.1	ug/L	J	F	0.3		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	7782-49-2	Selenium	Y	1	ug/L	J	F	0.7		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	7440-22-4	Silver	Y	0.033	ug/L	U	F	0.033		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	100-42-5	Styrene	N	0.17	ug/L	U	F	0.17		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	127-18-4	Tetrachloroethene	N	1.3	ug/L		F	0.2		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	108-88-3	Toluene	N	0.17	ug/L	U	F	0.17		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	1330-20-7	Total Xylenes	N	0.19	ug/L	U	F	0.19		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	156-60-5	trans-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	79-01-6	Trichloroethene	N	6.5	ug/L		F	0.16		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	7440-61-1	Uranium	Y	0.19	ug/L		F	0.05		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	75-01-4	Vinyl chloride	N	0.1	ug/L	U	F	0.1		FQ
70393	WL	1/30/2019	RFS01-10.1901010-002	7440-66-6	Zinc	Y	2	ug/L	U	F	2		FQ
70693	WL	1/30/2019	RFS01-10.1901010-003	71-55-6	1,1,1-Trichloroethane	N	0.45	ug/L	J	F	0.16		F
70693	WL	1/30/2019	RFS01-10.1901010-003	79-34-5	1,1,2,2-Tetrachloroethane	N	0.21	ug/L	U	F	0.21		F
70693	WL	1/30/2019	RFS01-10.1901010-003	79-00-5	1,1,2-Trichloroethane	N	0.27	ug/L	U	F	0.27		F
70693	WL	1/30/2019	RFS01-10.1901010-003	75-35-4	1,1-Dichloroethene	N	1.6	ug/L		F	0.23		F
70693	WL	1/30/2019	RFS01-10.1901010-003	120-82-1	1,2,4-Trichlorobenzene	N	0.21	ug/L	U	F	0.21		F
70693	WL	1/30/2019	RFS01-10.1901010-003	95-50-1	1,2-Dichlorobenzene	N	0.15	ug/L	U	F	0.15		F
70693	WL	1/30/2019	RFS01-10.1901010-003	107-06-2	1,2-Dichloroethane	N	0.13	ug/L	U	F	0.13		F
70693	WL	1/30/2019	RFS01-10.1901010-003	78-87-5	1,2-Dichloropropane	N	0.18	ug/L	U	F	0.18		F
70693	WL	1/30/2019	RFS01-10.1901010-003	541-73-1	1,3-Dichlorobenzene	N	0.13	ug/L	U	F	0.13		F
70693	WL	1/30/2019	RFS01-10.1901010-003	106-46-7	1,4-Dichlorobenzene	N	0.16	ug/L	U	F	0.16		F
70693	WL	1/30/2019	RFS01-10.1901010-003	7440-38-2	Arsenic	Y	0.33	ug/L	U	F	0.33		F
70693	WL	1/30/2019	RFS01-10.1901010-003	71-43-2	Benzene	N	0.16	ug/L	U	F	0.16		F
70693	WL	1/30/2019	RFS01-10.1901010-003	7440-41-7	Beryllium	Y	0.08	ug/L	U	F	0.08		F
70693	WL	1/30/2019	RFS01-10.1901010-003	7440-42-8	Boron	Y	26	ug/L		F	4.4		F
70693	WL	1/30/2019	RFS01-10.1901010-003	75-25-2	Bromoform	N	0.19	ug/L	U	F	0.19		F
70693	WL	1/30/2019	RFS01-10.1901010-003	7440-43-9	Cadmium	Y	0.27	ug/L	U	F	0.27		FJ
70693	WL	1/30/2019	RFS01-10.1901010-003	56-23-5	Carbon tetrachloride	N	0.48	ug/L	J	F	0.19		F
70693	WL	1/30/2019	RFS01-10.1901010-003	108-90-7	Chlorobenzene	N	0.17	ug/L	U	F	0.17		F
70693	WL	1/30/2019	RFS01-10.1901010-003	67-66-3	Chloroform	N	0.16	ug/L	U	F	0.16		F
70693	WL	1/30/2019	RFS01-10.1901010-003	74-87-3	Chloromethane	N	0.3	ug/L	U	F	0.3		F
70693	WL	1/30/2019	RFS01-10.1901010-003	7440-47-3	Chromium	Y	0.5	ug/L	U	F	0.5		F
70693	WL	1/30/2019	RFS01-10.1901010-003	156-59-2	cis-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		F
70693	WL	1/30/2019	RFS01-10.1901010-003	7440-50-8	Copper	Y	0.56	ug/L	U	F	0.56		F
70693	WL	1/30/2019	RFS01-10.1901010-003	100-41-4	Ethylbenzene	N	0.16	ug/L	U	F	0.16		F

RFLMA Data

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70693	WL	1/30/2019	RFS01-10.1901010-003	87-68-3	Hexachlorobutadiene	N	0.36	ug/L	U	F	0.36		F
70693	WL	1/30/2019	RFS01-10.1901010-003	7439-92-1	Lead	Y	0.18	ug/L	U	F	0.18		F
70693	WL	1/30/2019	RFS01-10.1901010-003	7439-97-6	Mercury	Y	0.027	ug/L	U	F	0.027		F
70693	WL	1/30/2019	RFS01-10.1901010-003	75-09-2	Methylene chloride	N	0.32	ug/L	U	F	0.32		F
70693	WL	1/30/2019	RFS01-10.1901010-003	91-20-3	Naphthalene	N	0.22	ug/L	U	F	0.22		F
70693	WL	1/30/2019	RFS01-10.1901010-003	7440-02-0	Nickel	Y	0.54	ug/L	J	F	0.3		F
70693	WL	1/30/2019	RFS01-10.1901010-003	7782-49-2	Selenium	Y	0.71	ug/L	J	F	0.7		F
70693	WL	1/30/2019	RFS01-10.1901010-003	7440-22-4	Silver	Y	0.033	ug/L	U	F	0.033		F
70693	WL	1/30/2019	RFS01-10.1901010-003	100-42-5	Styrene	N	0.17	ug/L	U	F	0.17		F
70693	WL	1/30/2019	RFS01-10.1901010-003	127-18-4	Tetrachloroethene	N	0.82	ug/L	J	F	0.2		F
70693	WL	1/30/2019	RFS01-10.1901010-003	108-88-3	Toluene	N	0.17	ug/L	U	F	0.17		F
70693	WL	1/30/2019	RFS01-10.1901010-003	1330-20-7	Total Xylenes	N	0.19	ug/L	U	F	0.19		F
70693	WL	1/30/2019	RFS01-10.1901010-003	156-60-5	trans-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		F
70693	WL	1/30/2019	RFS01-10.1901010-003	79-01-6	Trichloroethene	N	2.6	ug/L		F	0.16		F
70693	WL	1/30/2019	RFS01-10.1901010-003	7440-61-1	Uranium	Y	0.05	ug/L	U	F	0.05		F
70693	WL	1/30/2019	RFS01-10.1901010-003	75-01-4	Vinyl chloride	N	0.1	ug/L	U	F	0.1		F
70693	WL	1/30/2019	RFS01-10.1901010-003	7440-66-6	Zinc	Y	2	ug/L	U	F	2		F
73005	WL	1/31/2019	RFS01-10.1901010-004	71-55-6	1,1,1-Trichloroethane	N	0.16	ug/L	U	F	0.16		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	79-34-5	1,1,2,2-Tetrachloroethane	N	0.21	ug/L	U	F	0.21		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	79-00-5	1,1,2-Trichloroethane	N	0.27	ug/L	U	F	0.27		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	75-35-4	1,1-Dichloroethene	N	0.23	ug/L	U	F	0.23		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	120-82-1	1,2,4-Trichlorobenzene	N	0.21	ug/L	U	F	0.21		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	95-50-1	1,2-Dichlorobenzene	N	0.15	ug/L	U	F	0.15		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	107-06-2	1,2-Dichloroethane	N	0.13	ug/L	U	F	0.13		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	78-87-5	1,2-Dichloropropane	N	0.18	ug/L	U	F	0.18		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	541-73-1	1,3-Dichlorobenzene	N	0.13	ug/L	U	F	0.13		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	106-46-7	1,4-Dichlorobenzene	N	0.16	ug/L	U	F	0.16		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	7440-38-2	Arsenic	Y	0.33	ug/L	U	F	0.33		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	71-43-2	Benzene	N	0.16	ug/L	U	F	0.16		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	7440-41-7	Beryllium	Y	0.08	ug/L	U	F	0.08		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	7440-42-8	Boron	Y	39	ug/L		F	4.4		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	75-25-2	Bromoform	N	0.19	ug/L	U	F	0.19		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	7440-43-9	Cadmium	Y	0.27	ug/L	U	F	0.27		FJQ
73005	WL	1/31/2019	RFS01-10.1901010-004	56-23-5	Carbon tetrachloride	N	0.19	ug/L	U	F	0.19		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	108-90-7	Chlorobenzene	N	0.17	ug/L	U	F	0.17		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	67-66-3	Chloroform	N	0.16	ug/L	U	F	0.16		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	74-87-3	Chloromethane	N	0.3	ug/L	U	F	0.3		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	7440-47-3	Chromium	Y	0.93	ug/L	J	F	0.5		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	156-59-2	cis-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	7440-50-8	Copper	Y	0.68	ug/L	J	F	0.56		FJQ
73005	WL	1/31/2019	RFS01-10.1901010-004	100-41-4	Ethylbenzene	N	0.16	ug/L	U	F	0.16		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	87-68-3	Hexachlorobutadiene	N	0.36	ug/L	U	F	0.36		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	7439-92-1	Lead	Y	0.18	ug/L	U	F	0.18		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	7439-97-6	Mercury	Y	0.027	ug/L	U	F	0.027		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	75-09-2	Methylene chloride	N	0.32	ug/L	U	F	0.32		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	91-20-3	Naphthalene	N	0.22	ug/L	U	F	0.22		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	7440-02-0	Nickel	Y	1.1	ug/L	J	F	0.3		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	7782-49-2	Selenium	Y	7.9	ug/L		F	0.7		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	7440-22-4	Silver	Y	0.033	ug/L	U	F	0.033		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	100-42-5	Styrene	N	0.17	ug/L	U	F	0.17		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	127-18-4	Tetrachloroethene	N	0.2	ug/L	U	F	0.2		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	108-88-3	Toluene	N	0.17	ug/L	U	F	0.17		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	1330-20-7	Total Xylenes	N	0.19	ug/L	U	F	0.19		FQ

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73005	WL	1/31/2019	RFS01-10.1901010-004	156-60-5	trans-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	79-01-6	Trichloroethene	N	0.16	ug/L	U	F	0.16		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	7440-61-1	Uranium	Y	42	ug/L		F	0.05		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	75-01-4	Vinyl chloride	N	0.1	ug/L	U	F	0.1		FQ
73005	WL	1/31/2019	RFS01-10.1901010-004	7440-66-6	Zinc	Y	2.9	ug/L	J	F	2		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	71-55-6	1,1,1-Trichloroethane	N	0.16	ug/L	U	F	0.16		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	79-34-5	1,1,2,2-Tetrachloroethane	N	0.21	ug/L	U	F	0.21		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	79-00-5	1,1,2-Trichloroethane	N	0.27	ug/L	U	F	0.27		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	75-35-4	1,1-Dichloroethene	N	0.23	ug/L	U	F	0.23		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	120-82-1	1,2,4-Trichlorobenzene	N	0.21	ug/L	U	F	0.21		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	95-50-1	1,2-Dichlorobenzene	N	0.15	ug/L	U	F	0.15		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	107-06-2	1,2-Dichloroethane	N	0.13	ug/L	U	F	0.13		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	78-87-5	1,2-Dichloropropane	N	0.18	ug/L	U	F	0.18		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	541-73-1	1,3-Dichlorobenzene	N	0.13	ug/L	U	F	0.13		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	106-46-7	1,4-Dichlorobenzene	N	0.16	ug/L	U	F	0.16		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	7440-38-2	Arsenic	Y	0.33	ug/L	U	F	0.33		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	71-43-2	Benzene	N	0.16	ug/L	U	F	0.16		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	7440-41-7	Beryllium	Y	0.08	ug/L	U	F	0.08		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	7440-42-8	Boron	Y	130	ug/L		F	4.4		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	75-25-2	Bromoform	N	0.19	ug/L	U	F	0.19		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	7440-43-9	Cadmium	Y	0.27	ug/L	U	F	0.27		FJQ
73105	WL	1/31/2019	RFS01-10.1901010-005	56-23-5	Carbon tetrachloride	N	0.19	ug/L	U	F	0.19		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	108-90-7	Chlorobenzene	N	0.17	ug/L	U	F	0.17		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	67-66-3	Chloroform	N	0.16	ug/L	U	F	0.16		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	74-87-3	Chloromethane	N	0.3	ug/L	U	F	0.3		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	7440-47-3	Chromium	Y	0.5	ug/L	U	F	0.5		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	156-59-2	cis-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	7440-50-8	Copper	Y	0.56	ug/L	U	F	0.56		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	100-41-4	Ethylbenzene	N	0.16	ug/L	U	F	0.16		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	87-68-3	Hexachlorobutadiene	N	0.36	ug/L	U	F	0.36		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	7439-92-1	Lead	Y	0.18	ug/L	U	F	0.18		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	7439-97-6	Mercury	Y	0.027	ug/L	U	F	0.027		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	75-09-2	Methylene chloride	N	0.32	ug/L	U	F	0.32		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	91-20-3	Naphthalene	N	0.22	ug/L	U	F	0.22		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	7440-02-0	Nickel	Y	3.6	ug/L		F	0.3		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	7782-49-2	Selenium	Y	0.7	ug/L	U	F	0.7		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	7440-22-4	Silver	Y	0.033	ug/L	U	F	0.033		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	100-42-5	Styrene	N	0.17	ug/L	U	F	0.17		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	127-18-4	Tetrachloroethene	N	0.2	ug/L	U	F	0.2		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	108-88-3	Toluene	N	0.17	ug/L	U	F	0.17		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	1330-20-7	Total Xylenes	N	0.19	ug/L	U	F	0.19		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	156-60-5	trans-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	79-01-6	Trichloroethene	N	0.16	ug/L	U	F	0.16		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	7440-61-1	Uranium	Y	20	ug/L		F	0.05		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	75-01-4	Vinyl chloride	N	0.1	ug/L	U	F	0.1		FQ
73105	WL	1/31/2019	RFS01-10.1901010-005	7440-66-6	Zinc	Y	4	ug/L	J	F	2		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	71-55-6	1,1,1-Trichloroethane	N	0.16	ug/L	U	F	0.16		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	79-34-5	1,1,2,2-Tetrachloroethane	N	0.21	ug/L	U	F	0.21		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	79-00-5	1,1,2-Trichloroethane	N	0.27	ug/L	U	F	0.27		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	75-35-4	1,1-Dichloroethene	N	0.23	ug/L	U	F	0.23		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	120-82-1	1,2,4-Trichlorobenzene	N	0.21	ug/L	U	F	0.21		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	95-50-1	1,2-Dichlorobenzene	N	0.15	ug/L	U	F	0.15		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	107-06-2	1,2-Dichloroethane	N	0.13	ug/L	U	F	0.13		FQ

RFLMA Data

LOCATION_CODE	LOCATION_TYPE	DATE SAMPLED	SAMPLE CODE	CAS	ANALYTE	FILTRATION STATUS	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS
73205	WL	1/30/2019	RFS01-10.1901010-006	78-87-5	1,2-Dichloropropane	N	0.18	ug/L	U	F	0.18		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	541-73-1	1,3-Dichlorobenzene	N	0.13	ug/L	U	F	0.13		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	106-46-7	1,4-Dichlorobenzene	N	0.16	ug/L	U	F	0.16		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	7440-38-2	Arsenic	Y	0.72	ug/L	J	F	0.33		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	71-43-2	Benzene	N	0.16	ug/L	U	F	0.16		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	7440-41-7	Beryllium	Y	0.08	ug/L	U	F	0.08		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	7440-42-8	Boron	Y	65	ug/L		F	4.4		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	75-25-2	Bromoform	N	0.19	ug/L	U	F	0.19		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	7440-43-9	Cadmium	Y	0.27	ug/L	U	F	0.27		FJQ
73205	WL	1/30/2019	RFS01-10.1901010-006	56-23-5	Carbon tetrachloride	N	0.19	ug/L	U	F	0.19		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	108-90-7	Chlorobenzene	N	0.17	ug/L	U	F	0.17		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	67-66-3	Chloroform	N	0.16	ug/L	U	F	0.16		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	74-87-3	Chloromethane	N	0.3	ug/L	U	F	0.3		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	7440-47-3	Chromium	Y	0.5	ug/L	U	F	0.5		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	156-59-2	cis-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	7440-50-8	Copper	Y	1.1	ug/L	J	F	0.56		FJQ
73205	WL	1/30/2019	RFS01-10.1901010-006	100-41-4	Ethylbenzene	N	0.16	ug/L	U	F	0.16		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	87-68-3	Hexachlorobutadiene	N	0.36	ug/L	U	F	0.36		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	7439-92-1	Lead	Y	0.18	ug/L	U	F	0.18		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	7439-97-6	Mercury	Y	0.027	ug/L	U	F	0.027		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	75-09-2	Methylene chloride	N	0.32	ug/L	U	F	0.32		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	91-20-3	Naphthalene	N	0.22	ug/L	U	F	0.22		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	7440-02-0	Nickel	Y	1.8	ug/L	J	F	0.3		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	7782-49-2	Selenium	Y	310	ug/L		F	0.7		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	7440-22-4	Silver	Y	0.033	ug/L	U	F	0.033		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	100-42-5	Styrene	N	0.17	ug/L	U	F	0.17		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	127-18-4	Tetrachloroethene	N	0.2	ug/L	U	F	0.2		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	108-88-3	Toluene	N	0.17	ug/L	U	F	0.17		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	1330-20-7	Total Xylenes	N	0.19	ug/L	U	F	0.19		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	156-60-5	trans-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	79-01-6	Trichloroethene	N	0.16	ug/L	U	F	0.16		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	7440-61-1	Uranium	Y	110	ug/L		F	0.05		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	75-01-4	Vinyl chloride	N	0.1	ug/L	U	F	0.1		FQ
73205	WL	1/30/2019	RFS01-10.1901010-006	7440-66-6	Zinc	Y	2.2	ug/L	J	F	2		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	71-55-6	1,1,1-Trichloroethane	N	0.16	ug/L	U	F	0.16		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	79-34-5	1,1,2,2-Tetrachloroethane	N	0.21	ug/L	U	F	0.21		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	79-00-5	1,1,2-Trichloroethane	N	0.27	ug/L	U	F	0.27		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	75-35-4	1,1-Dichloroethene	N	0.23	ug/L	U	F	0.23		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	120-82-1	1,2,4-Trichlorobenzene	N	0.21	ug/L	U	F	0.21		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	95-50-1	1,2-Dichlorobenzene	N	0.15	ug/L	U	F	0.15		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	107-06-2	1,2-Dichloroethane	N	0.13	ug/L	U	F	0.13		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	78-87-5	1,2-Dichloropropane	N	0.18	ug/L	U	F	0.18		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	541-73-1	1,3-Dichlorobenzene	N	0.13	ug/L	U	F	0.13		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	106-46-7	1,4-Dichlorobenzene	N	0.16	ug/L	U	F	0.16		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	91-58-7	2-Chloronaphthalene	N	0.25	ug/L	U	F	0.25		FQ
80005	WL	1/23/2019	RFS01-10.1901010-008	83-32-9	Acenaphthene	N	0.01	ug/L	U	F	0.01		FQ
80005	WL	1/23/2019	RFS01-10.1901010-008	120-12-7	Anthracene	N	0.013	ug/L	U	F	0.013		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	7440-38-2	Arsenic	Y	0.33	ug/L	U	F	0.33		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	71-43-2	Benzene	N	0.16	ug/L	U	F	0.16		FQ
80005	WL	1/23/2019	RFS01-10.1901010-008	50-32-8	Benzo(a)pyrene	N	0.0049	ug/L	U	F	0.0049		FQ
80005	WL	1/23/2019	RFS01-10.1901010-008	191-24-2	Benzo(g,h,i)Perylene	N	0.0034	ug/L	U	F	0.0034		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	7440-41-7	Beryllium	Y	0.08	ug/L	U	F	0.08		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	108-60-1	Bis(2-chloroisopropyl) ether	N	0.27	ug/L	U	F	0.27		FQ

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80005	WL	1/23/2019	RFS01-10.1901010-007	117-81-7	Bis(2-ethylhexyl) phthalate	N	0.53	ug/L	U	F	0.53		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	7440-42-8	Boron	Y	49	ug/L		F	4.4		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	75-25-2	Bromoform	N	0.19	ug/L	U	F	0.19		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	7440-43-9	Cadmium	Y	0.27	ug/L	U	F	0.27		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	56-23-5	Carbon tetrachloride	N	0.19	ug/L	U	F	0.19		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	108-90-7	Chlorobenzene	N	0.17	ug/L	U	F	0.17		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	67-66-3	Chloroform	N	0.16	ug/L	U	F	0.16		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	74-87-3	Chloromethane	N	0.3	ug/L	U	F	0.3		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	7440-47-3	Chromium	Y	0.5	ug/L	U	F	0.5		FQ
80005	WL	1/23/2019	RFS01-10.1901010-008	218-01-9	Chrysene	N	0.0066	ug/L	J	F	0.003		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	156-59-2	cis-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	7440-50-8	Copper	Y	0.56	ug/L	U	F	0.56		FQ
80005	WL	1/23/2019	RFS01-10.1901010-008	53-70-3	Dibenz(a,h)anthracene	N	0.0046	ug/L	U	F	0.0046		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	84-66-2	Diethyl phthalate	N	0.36	ug/L	U	F	0.36		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	131-11-3	Dimethyl phthalate	N	0.2	ug/L	U	F	0.2		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	84-74-2	Di-n-butyl phthalate	N	1.1	ug/L	U	F	1.1		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	100-41-4	Ethylbenzene	N	0.16	ug/L	U	F	0.16		FQ
80005	WL	1/23/2019	RFS01-10.1901010-008	206-44-0	Fluoranthene	N	0.0067	ug/L	J	F	0.0043		FQ
80005	WL	1/23/2019	RFS01-10.1901010-008	86-73-7	Fluorene	N	0.018	ug/L	U	F	0.018		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	87-68-3	Hexachlorobutadiene	N	0.36	ug/L	U	F	0.36		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	67-72-1	Hexachloroethane	N	2	ug/L	U	F	2		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	78-59-1	Isophorone	N	0.2	ug/L	U	F	0.2		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	7439-92-1	Lead	Y	0.18	ug/L	U	F	0.18		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	7439-97-6	Mercury	Y	0.027	ug/L	U	F	0.027		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	75-09-2	Methylene chloride	N	0.32	ug/L	U	F	0.32		FQ
80005	WL	1/23/2019	RFS01-10.1901010-008	91-20-3	Naphthalene	N	0.0055	ug/L	J	F	0.005		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	7440-02-0	Nickel	Y	0.37	ug/L	J	F	0.3		FQU
80005	WL	1/23/2019	RFS01-10.1901010-008	129-00-0	Pyrene	N	0.0076	ug/L	U	F	0.0076		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	7782-49-2	Selenium	Y	0.7	ug/L	U	F	0.7		FJQ
80005	WL	1/23/2019	RFS01-10.1901010-007	7440-22-4	Silver	Y	0.033	ug/L	J	F	0.033		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	100-42-5	Styrene	N	0.17	ug/L	U	F	0.17		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	127-18-4	Tetrachloroethene	N	0.2	ug/L	U	F	0.2		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	108-88-3	Toluene	N	0.17	ug/L	U	F	0.17		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	1330-20-7	Total Xylenes	N	0.19	ug/L	U	F	0.19		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	156-60-5	trans-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	79-01-6	Trichloroethene	N	0.16	ug/L	U	F	0.16		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	7440-61-1	Uranium	Y	7	ug/L		F	0.05		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	75-01-4	Vinyl chloride	N	0.1	ug/L	U	F	0.1		FQ
80005	WL	1/23/2019	RFS01-10.1901010-007	7440-66-6	Zinc	Y	2	ug/L	U	F	2		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	71-55-6	1,1,1-Trichloroethane	N	0.16	ug/L	U	F	0.16		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	71-55-6	1,1,1-Trichloroethane	N	0.16	ug/L	U	D	0.16		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	79-34-5	1,1,2,2-Tetrachloroethane	N	0.21	ug/L	U	F	0.21		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	79-34-5	1,1,2,2-Tetrachloroethane	N	0.21	ug/L	U	D	0.21		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	79-00-5	1,1,2-Trichloroethane	N	0.27	ug/L	U	F	0.27		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	79-00-5	1,1,2-Trichloroethane	N	0.27	ug/L	U	D	0.27		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	75-35-4	1,1-Dichloroethene	N	0.23	ug/L	U	F	0.23		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	75-35-4	1,1-Dichloroethene	N	0.23	ug/L	U	D	0.23		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	120-82-1	1,2,4-Trichlorobenzene	N	0.21	ug/L	U	F	0.21		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	120-82-1	1,2,4-Trichlorobenzene	N	0.21	ug/L	U	D	0.21		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	95-50-1	1,2-Dichlorobenzene	N	0.15	ug/L	U	F	0.15		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	95-50-1	1,2-Dichlorobenzene	N	0.15	ug/L	U	D	0.15		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	107-06-2	1,2-Dichloroethane	N	0.13	ug/L	U	F	0.13		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	107-06-2	1,2-Dichloroethane	N	0.13	ug/L	U	D	0.13		FQ

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80105	WL	1/23/2019	RFS01-10.1901010-009	78-87-5	1,2-Dichloropropane	N	0.18	ug/L	U	F	0.18		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	78-87-5	1,2-Dichloropropane	N	0.18	ug/L	U	D	0.18		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	541-73-1	1,3-Dichlorobenzene	N	0.13	ug/L	U	F	0.13		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	541-73-1	1,3-Dichlorobenzene	N	0.13	ug/L	U	D	0.13		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	106-46-7	1,4-Dichlorobenzene	N	0.16	ug/L	U	F	0.16		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	106-46-7	1,4-Dichlorobenzene	N	0.16	ug/L	U	D	0.16		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	91-58-7	2-Chloronaphthalene	N	0.25	ug/L	U	F	0.25		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	91-58-7	2-Chloronaphthalene	N	0.25	ug/L	U	D	0.25		FQ
80105	WL	1/23/2019	RFS01-10.1901010-010	83-32-9	Acenaphthene	N	0.01	ug/L	U	F	0.01		FQ
80105	WL	1/23/2019	RFS01-10.1901010-016	83-32-9	Acenaphthene	N	0.01	ug/L	U	D	0.01		FQ
80105	WL	1/23/2019	RFS01-10.1901010-010	120-12-7	Anthracene	N	0.014	ug/L	U	F	0.014		FQ
80105	WL	1/23/2019	RFS01-10.1901010-016	120-12-7	Anthracene	N	0.014	ug/L	U	D	0.014		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	7440-38-2	Arsenic	Y	0.33	ug/L	U	F	0.33		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	7440-38-2	Arsenic	Y	0.33	ug/L	U	D	0.33		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	71-43-2	Benzene	N	0.16	ug/L	U	F	0.16		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	71-43-2	Benzene	N	0.16	ug/L	U	D	0.16		FQ
80105	WL	1/23/2019	RFS01-10.1901010-010	50-32-8	Benzo(a)pyrene	N	0.0049	ug/L	U	F	0.0049		FQ
80105	WL	1/23/2019	RFS01-10.1901010-016	50-32-8	Benzo(a)pyrene	N	0.0049	ug/L	U	D	0.0049		FQ
80105	WL	1/23/2019	RFS01-10.1901010-010	191-24-2	Benzo(g,h,i)Perylene	N	0.0034	ug/L	U	F	0.0034		FQ
80105	WL	1/23/2019	RFS01-10.1901010-016	191-24-2	Benzo(g,h,i)Perylene	N	0.0034	ug/L	U	D	0.0034		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	7440-41-7	Beryllium	Y	0.08	ug/L	U	F	0.08		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	7440-41-7	Beryllium	Y	0.08	ug/L	U	D	0.08		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	108-60-1	Bis(2-chloroisopropyl) ether	N	0.27	ug/L	U	F	0.27		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	108-60-1	Bis(2-chloroisopropyl) ether	N	0.27	ug/L	U	D	0.27		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	117-81-7	Bis(2-ethylhexyl) phthalate	N	0.53	ug/L	U	F	0.53		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	117-81-7	Bis(2-ethylhexyl) phthalate	N	0.53	ug/L	U	D	0.53		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	7440-42-8	Boron	Y	140	ug/L		F	4.4		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	7440-42-8	Boron	Y	140	ug/L		D	4.4		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	75-25-2	Bromoform	N	0.19	ug/L	U	F	0.19		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	75-25-2	Bromoform	N	0.19	ug/L	U	D	0.19		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	7440-43-9	Cadmium	Y	0.27	ug/L	U	F	0.27		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	7440-43-9	Cadmium	Y	0.27	ug/L	U	D	0.27		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	56-23-5	Carbon tetrachloride	N	0.19	ug/L	U	F	0.19		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	56-23-5	Carbon tetrachloride	N	0.19	ug/L	U	D	0.19		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	108-90-7	Chlorobenzene	N	0.17	ug/L	U	F	0.17		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	108-90-7	Chlorobenzene	N	0.17	ug/L	U	D	0.17		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	67-66-3	Chloroform	N	0.16	ug/L	U	F	0.16		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	67-66-3	Chloroform	N	0.16	ug/L	U	D	0.16		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	74-87-3	Chloromethane	N	0.3	ug/L	U	F	0.3		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	74-87-3	Chloromethane	N	0.3	ug/L	U	D	0.3		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	7440-47-3	Chromium	Y	0.55	ug/L	J	F	0.5		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	7440-47-3	Chromium	Y	0.5	ug/L	U	D	0.5		FQ
80105	WL	1/23/2019	RFS01-10.1901010-010	218-01-9	Chrysene	N	0.0031	ug/L	U	F	0.0031		FQ
80105	WL	1/23/2019	RFS01-10.1901010-016	218-01-9	Chrysene	N	0.003	ug/L	U	D	0.003		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	156-59-2	cis-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	156-59-2	cis-1,2-Dichloroethene	N	0.15	ug/L	U	D	0.15		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	7440-50-8	Copper	Y	0.56	ug/L	U	F	0.56		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	7440-50-8	Copper	Y	0.56	ug/L	U	D	0.56		FQ
80105	WL	1/23/2019	RFS01-10.1901010-010	53-70-3	Dibenz(a,h)anthracene	N	0.0046	ug/L	U	F	0.0046		FQ
80105	WL	1/23/2019	RFS01-10.1901010-016	53-70-3	Dibenz(a,h)anthracene	N	0.0046	ug/L	U	D	0.0046		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	84-66-2	Diethyl phthalate	N	0.36	ug/L	U	F	0.36		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	84-66-2	Diethyl phthalate	N	0.36	ug/L	U	D	0.36		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	131-11-3	Dimethyl phthalate	N	0.2	ug/L	U	F	0.2		FQ

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80105	WL	1/23/2019	RFS01-10.1901010-015	131-11-3	Dimethyl phthalate	N	0.2	ug/L	U	D	0.2		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	84-74-2	Di-n-butyl phthalate	N	1.1	ug/L	U	F	1.1		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	84-74-2	Di-n-butyl phthalate	N	1.1	ug/L	U	D	1.1		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	100-41-4	Ethylbenzene	N	0.16	ug/L	U	F	0.16		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	100-41-4	Ethylbenzene	N	0.16	ug/L	U	D	0.16		FQ
80105	WL	1/23/2019	RFS01-10.1901010-010	206-44-0	Fluoranthene	N	0.0044	ug/L	U	F	0.0044		FQ
80105	WL	1/23/2019	RFS01-10.1901010-016	206-44-0	Fluoranthene	N	0.0043	ug/L	U	D	0.0043		FQ
80105	WL	1/23/2019	RFS01-10.1901010-010	86-73-7	Fluorene	N	0.018	ug/L	U	F	0.018		FQ
80105	WL	1/23/2019	RFS01-10.1901010-016	86-73-7	Fluorene	N	0.018	ug/L	U	D	0.018		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	87-68-3	Hexachlorobutadiene	N	0.36	ug/L	U	F	0.36		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	87-68-3	Hexachlorobutadiene	N	0.36	ug/L	U	D	0.36		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	67-72-1	Hexachloroethane	N	2	ug/L	U	F	2		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	67-72-1	Hexachloroethane	N	2	ug/L	U	D	2		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	78-59-1	Isophorone	N	0.2	ug/L	U	F	0.2		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	78-59-1	Isophorone	N	0.2	ug/L	U	D	0.2		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	7439-92-1	Lead	Y	1.1	ug/L		F	0.18		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	7439-92-1	Lead	Y	0.18	ug/L	U	D	0.18		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	7439-97-6	Mercury	Y	0.027	ug/L	U	F	0.027		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	7439-97-6	Mercury	Y	0.027	ug/L	U	D	0.027		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	75-09-2	Methylene chloride	N	0.32	ug/L	U	F	0.32		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	75-09-2	Methylene chloride	N	0.32	ug/L	U	D	0.32		FQ
80105	WL	1/23/2019	RFS01-10.1901010-010	91-20-3	Naphthalene	N	0.0051	ug/L	U	F	0.0051		FQ
80105	WL	1/23/2019	RFS01-10.1901010-016	91-20-3	Naphthalene	N	0.0051	ug/L	U	D	0.0051		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	7440-02-0	Nickel	Y	0.3	ug/L	U	F	0.3		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	7440-02-0	Nickel	Y	0.3	ug/L	U	D	0.3		FQ
80105	WL	1/23/2019	RFS01-10.1901010-010	129-00-0	Pyrene	N	0.0078	ug/L	U	F	0.0078		FQ
80105	WL	1/23/2019	RFS01-10.1901010-016	129-00-0	Pyrene	N	0.0077	ug/L	U	D	0.0077		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	7782-49-2	Selenium	Y	0.7	ug/L	U	F	0.7		FJQ
80105	WL	1/23/2019	RFS01-10.1901010-015	7782-49-2	Selenium	Y	0.7	ug/L	U	D	0.7		FJQ
80105	WL	1/23/2019	RFS01-10.1901010-009	7440-22-4	Silver	Y	0.033	ug/L	U	F	0.033		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	7440-22-4	Silver	Y	0.033	ug/L	U	D	0.033		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	100-42-5	Styrene	N	0.17	ug/L	U	F	0.17		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	100-42-5	Styrene	N	0.17	ug/L	U	D	0.17		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	127-18-4	Tetrachloroethene	N	0.2	ug/L	U	F	0.2		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	127-18-4	Tetrachloroethene	N	0.2	ug/L	U	D	0.2		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	108-88-3	Toluene	N	0.17	ug/L	U	F	0.17		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	108-88-3	Toluene	N	0.17	ug/L	U	D	0.17		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	1330-20-7	Total Xylenes	N	0.19	ug/L	U	F	0.19		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	1330-20-7	Total Xylenes	N	0.19	ug/L	U	D	0.19		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	156-60-5	trans-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	156-60-5	trans-1,2-Dichloroethene	N	0.15	ug/L	U	D	0.15		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	79-01-6	Trichloroethene	N	0.16	ug/L	U	F	0.16		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	79-01-6	Trichloroethene	N	0.16	ug/L	U	D	0.16		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	7440-61-1	Uranium	Y	10	ug/L		F	0.05		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	7440-61-1	Uranium	Y	9.3	ug/L		D	0.05		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	75-01-4	Vinyl chloride	N	0.1	ug/L	U	F	0.1		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	75-01-4	Vinyl chloride	N	0.1	ug/L	U	D	0.1		FQ
80105	WL	1/23/2019	RFS01-10.1901010-009	7440-66-6	Zinc	Y	2	ug/L	U	F	2		FQ
80105	WL	1/23/2019	RFS01-10.1901010-015	7440-66-6	Zinc	Y	2	ug/L	U	D	2		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	71-55-6	1,1,1-Trichloroethane	N	0.16	ug/L	U	F	0.16		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	79-34-5	1,1,2,2-Tetrachloroethane	N	0.21	ug/L	U	F	0.21		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	79-00-5	1,1,2-Trichloroethane	N	0.27	ug/L	U	F	0.27		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	75-35-4	1,1-Dichloroethene	N	0.23	ug/L	U	F	0.23		FQ

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80205	WL	1/25/2019	RFS01-10.1901010-011	120-82-1	1,2,4-Trichlorobenzene	N	0.21	ug/L	U	F	0.21		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	95-50-1	1,2-Dichlorobenzene	N	0.15	ug/L	U	F	0.15		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	107-06-2	1,2-Dichloroethane	N	0.13	ug/L	U	F	0.13		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	78-87-5	1,2-Dichloropropane	N	0.18	ug/L	U	F	0.18		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	541-73-1	1,3-Dichlorobenzene	N	0.13	ug/L	U	F	0.13		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	106-46-7	1,4-Dichlorobenzene	N	0.16	ug/L	U	F	0.16		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	91-58-7	2-Chloronaphthalene	N	0.25	ug/L	U	F	0.25		FQ
80205	WL	1/25/2019	RFS01-10.1901010-012	83-32-9	Acenaphthene	N	0.01	ug/L	U	F	0.01		FQ
80205	WL	1/25/2019	RFS01-10.1901010-012	120-12-7	Anthracene	N	0.013	ug/L	U	F	0.013		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	7440-38-2	Arsenic	Y	0.36	ug/L	J	F	0.33		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	71-43-2	Benzene	N	0.16	ug/L	U	F	0.16		FQ
80205	WL	1/25/2019	RFS01-10.1901010-012	50-32-8	Benzo(a)pyrene	N	0.0049	ug/L	U	F	0.0049		FQ
80205	WL	1/25/2019	RFS01-10.1901010-012	191-24-2	Benzo(g,h,i)Perylene	N	0.0034	ug/L	U	F	0.0034		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	7440-41-7	Beryllium	Y	0.084	ug/L	J	F	0.08		FQU
80205	WL	1/25/2019	RFS01-10.1901010-011	108-60-1	Bis(2-chloroisopropyl) ether	N	0.27	ug/L	U	F	0.27		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	117-81-7	Bis(2-ethylhexyl) phthalate	N	0.55	ug/L	U	F	0.55		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	7440-42-8	Boron	Y	52	ug/L		F	4.4		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	75-25-2	Bromoform	N	0.19	ug/L	U	F	0.19		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	7440-43-9	Cadmium	Y	0.27	ug/L	U	F	0.27		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	56-23-5	Carbon tetrachloride	N	0.19	ug/L	U	F	0.19		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	108-90-7	Chlorobenzene	N	0.17	ug/L	U	F	0.17		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	67-66-3	Chloroform	N	0.16	ug/L	U	F	0.16		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	74-87-3	Chloromethane	N	0.3	ug/L	U	F	0.3		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	7440-47-3	Chromium	Y	0.5	ug/L	U	F	0.5		FQ
80205	WL	1/25/2019	RFS01-10.1901010-012	218-01-9	Chrysene	N	0.003	ug/L	U	F	0.003		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	156-59-2	cis-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	7440-50-8	Copper	Y	1.1	ug/L	J	F	0.56		FQ
80205	WL	1/25/2019	RFS01-10.1901010-012	53-70-3	Dibenz(a,h)anthracene	N	0.0046	ug/L	U	F	0.0046		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	84-66-2	Diethyl phthalate	N	0.37	ug/L	U	F	0.37		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	131-11-3	Dimethyl phthalate	N	0.21	ug/L	U	F	0.21		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	84-74-2	Di-n-butyl phthalate	N	1.1	ug/L	U	F	1.1		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	100-41-4	Ethylbenzene	N	0.16	ug/L	U	F	0.16		FQ
80205	WL	1/25/2019	RFS01-10.1901010-012	206-44-0	Fluoranthene	N	0.0043	ug/L	U	F	0.0043		FQ
80205	WL	1/25/2019	RFS01-10.1901010-012	86-73-7	Fluorene	N	0.018	ug/L	U	F	0.018		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	87-68-3	Hexachlorobutadiene	N	0.36	ug/L	U	F	0.36		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	67-72-1	Hexachloroethane	N	2.1	ug/L	U	F	2.1		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	78-59-1	Isophorone	N	0.21	ug/L	U	F	0.21		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	7439-92-1	Lead	Y	0.18	ug/L	U	F	0.18		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	7439-97-6	Mercury	Y	0.027	ug/L	U	F	0.027		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	75-09-2	Methylene chloride	N	0.32	ug/L	U	F	0.32		FQ
80205	WL	1/25/2019	RFS01-10.1901010-012	91-20-3	Naphthalene	N	0.005	ug/L	U	F	0.005		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	7440-02-0	Nickel	Y	2.1	ug/L		F	0.3		FQU
80205	WL	1/25/2019	RFS01-10.1901010-012	129-00-0	Pyrene	N	0.0076	ug/L	U	F	0.0076		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	7782-49-2	Selenium	Y	0.89	ug/L	J	F	0.7		FJQ
80205	WL	1/25/2019	RFS01-10.1901010-011	7440-22-4	Silver	Y	0.078	ug/L	J	F	0.033		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	100-42-5	Styrene	N	0.17	ug/L	U	F	0.17		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	127-18-4	Tetrachloroethene	N	0.2	ug/L	U	F	0.2		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	108-88-3	Toluene	N	0.17	ug/L	U	F	0.17		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	1330-20-7	Total Xylenes	N	0.19	ug/L	U	F	0.19		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	156-60-5	trans-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	79-01-6	Trichloroethene	N	0.16	ug/L	U	F	0.16		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	7440-61-1	Uranium	Y	55	ug/L		F	0.05		FQ
80205	WL	1/25/2019	RFS01-10.1901010-011	75-01-4	Vinyl chloride	N	0.1	ug/L	U	F	0.1		FQ

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80205	WL	1/25/2019	RFS01-10.1901010-011	7440-66-6	Zinc	Y	2	ug/L	U	F	2		FQ
GS05	SL	1/3/2019	RFS01-01.1904013-003	7440-38-2	Arsenic	N	2	ug/L	U	F	2		
GS05	SL	1/3/2019	RFS01-01.1904013-003	7440-41-7	Beryllium	N	0.2	ug/L	U	F	0.2		
GS05	SL	1/3/2019	RFS01-01.1904013-003	7440-42-8	Boron	N	10.4	ug/L	B	F	5.2		
GS05	SL	1/3/2019	RFS01-01.1904013-002	7440-43-9	Cadmium	Y	0.3	ug/L	U	F	0.3		
GS05	SL	1/3/2019	RFS01-01.1904013-003	7440-47-3	Chromium	N	3	ug/L	U	F	3		
GS05	SL	1/3/2019	RFS01-01.1904013-002	7440-50-8	Copper	Y	3.46	ug/L	B	F	0.3		
GS05	SL	1/3/2019	RFS01-01.1904013-002	7439-92-1	Lead	Y	0.5	ug/L	U	F	0.5		
GS05	SL	1/3/2019	RFS01-01.1904013-002	7440-02-0	Nickel	Y	1.61	ug/L	B	F	0.6		
GS05	SL	1/3/2019	RFS01-01.1904013-003	7782-49-2	Selenium	N	2	ug/L	U	F	2		
GS05	SL	1/3/2019	RFS01-01.1904013-002	7440-22-4	Silver	Y	0.3	ug/L	U	F	0.3		
GS05	SL	1/3/2019	RFS01-01.1904013-003	7440-61-1	Uranium	N	0.546	ug/L	B	F	0.067		
GS05	SL	1/3/2019	RFS01-01.1904013-002	7440-66-6	Zinc	Y	3.3	ug/L	U	F	3.3		
GS05	SL	1/8/2019	RFS01-02.1901012-001	71-55-6	1,1,1-Trichloroethane	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	79-34-5	1,1,2,2-Tetrachloroethane	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	79-00-5	1,1,2-Trichloroethane	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	75-35-4	1,1-Dichloroethene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	120-82-1	1,2,4-Trichlorobenzene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	95-50-1	1,2-Dichlorobenzene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	107-06-2	1,2-Dichloroethane	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	78-87-5	1,2-Dichloropropane	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	541-73-1	1,3-Dichlorobenzene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	106-46-7	1,4-Dichlorobenzene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	71-43-2	Benzene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	75-25-2	Bromoform	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	56-23-5	Carbon tetrachloride	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	108-90-7	Chlorobenzene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	67-66-3	Chloroform	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	74-87-3	Chloromethane	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	156-59-2	cis-1,2-Dichloroethene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	100-41-4	Ethylbenzene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	87-68-3	Hexachlorobutadiene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	7439-97-6	Mercury	N	0.067	ug/L	U	F	0.067		
GS05	SL	1/8/2019	RFS01-02.1901012-001	75-09-2	Methylene chloride	N	1.67	ug/L	U	F	1.67		
GS05	SL	1/8/2019	RFS01-02.1901012-001	91-20-3	Naphthalene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	100-42-5	Styrene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	127-18-4	Tetrachloroethene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	108-88-3	Toluene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	1330-20-7	Total Xylenes	N	1	ug/L	U	F	1		
GS05	SL	1/8/2019	RFS01-02.1901012-001	156-60-5	trans-1,2-Dichloroethene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	79-01-6	Trichloroethene	N	0.333	ug/L	U	F	0.333		
GS05	SL	1/8/2019	RFS01-02.1901012-001	75-01-4	Vinyl chloride	N	0.333	ug/L	U	F	0.333		
GS10	SL	1/3/2019	RFS01-13.1904014-001	14596-10-2	Americium-241	N	-0.0109	pCi/L	U	F	0	0.0263	
GS10	SL	1/3/2019	RFS01-13.1904014-001	7440-41-7	Beryllium	N	1	ug/L	U	F	1		
GS10	SL	1/3/2019	RFS01-13.1904014-001	7440-43-9	Cadmium	Y	0.3	ug/L	U	F	0.3		
GS10	SL	1/3/2019	RFS01-13.1904014-001	7440-47-3	Chromium	N	1	ug/L	U	F	1		
GS10	SL	1/3/2019	RFS01-13.1904014-001	PU-239,240	Plutonium-239, 240	N	0.00127	pCi/L	U	F	0	0.0103	
GS10	SL	1/3/2019	RFS01-13.1904014-001	7440-22-4	Silver	Y	0.3	ug/L	U	F	0.3		
GS10	SL	1/3/2019	RFS01-13.1904014-001	7440-61-1	Uranium	N	18.6	ug/L		F	0.067		
GS10	SL	3/28/2019	RFS01-13.1904015-001	14596-10-2	Americium-241	N	4.38E-09	pCi/L	U	F	0	0.0137	
GS10	SL	3/28/2019	RFS01-13.1904015-001	7440-41-7	Beryllium	N	1	ug/L	U	F	1		
GS10	SL	3/28/2019	RFS01-13.1904015-001	7440-43-9	Cadmium	Y	0.3	ug/L	U	F	0.3		
GS10	SL	3/28/2019	RFS01-13.1904015-001	7440-47-3	Chromium	N	1	ug/L	U	F	1		

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GS10	SL	3/28/2019	RFS01-13.1904015-001	PU-239,240	Plutonium-239, 240	N	0.00461	pCi/L	U	F	0	0.0293	
GS10	SL	3/28/2019	RFS01-13.1904015-001	7440-22-4	Silver	Y	0.3	ug/L	U	F	0.3		
GS10	SL	3/28/2019	RFS01-13.1904015-001	7440-61-1	Uranium	N	19.5	ug/L		F	0.067		
GS13	SL	1/3/2019	RFS01-01.1904013-001	7440-61-1	Uranium	N	14.7	ug/L		F	0.067		
GS13	SL	1/14/2019	RFS01-04.1901015-007	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	24	mg/L		F	0.095		
GS13	SL	1/31/2019	RFS01-06.1902014-005	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	16	mg/L		F	0.095		J
GS13	SL	2/14/2019	RFS01-04.1902016-007	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	10	mg/L		F	0.038		
GS13	SL	2/28/2019	RFS01-06.1903015-005	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	15	mg/L		F	0.095		
GS13	SL	3/18/2019	RFS01-04.1903017-007	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	7.2	mg/L	B	F	0.019		
GS13	SL	3/18/2019	RFS01-04.1903017-015	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	7.1	mg/L	B	D	0.019		
GS13	SL	3/28/2019	RFS01-06.1903016-005	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	13	mg/L		F	0.19		
GS59	SL	1/3/2019	RFS01-01.1904012-002	7440-38-2	Arsenic	N	2.4	ug/L	B	F	2		
GS59	SL	1/3/2019	RFS01-01.1904012-002	7440-41-7	Beryllium	N	0.2	ug/L	U	F	0.2		
GS59	SL	1/3/2019	RFS01-01.1904012-002	7440-42-8	Boron	N	7.96	ug/L	B	F	5.2		
GS59	SL	1/3/2019	RFS01-01.1904012-001	7440-43-9	Cadmium	Y	0.3	ug/L	U	F	0.3		
GS59	SL	1/3/2019	RFS01-01.1904012-002	7440-47-3	Chromium	N	3	ug/L	U	F	3		
GS59	SL	1/3/2019	RFS01-01.1904012-001	7440-50-8	Copper	Y	1.36	ug/L	B	F	0.3		
GS59	SL	1/3/2019	RFS01-01.1904012-001	7439-92-1	Lead	Y	0.5	ug/L	U	F	0.5		
GS59	SL	1/3/2019	RFS01-01.1904012-001	7440-02-0	Nickel	Y	0.61	ug/L	B	F	0.6		
GS59	SL	1/3/2019	RFS01-01.1904012-002	7782-49-2	Selenium	N	2	ug/L	U	F	2		
GS59	SL	1/3/2019	RFS01-01.1904012-001	7440-22-4	Silver	Y	0.3	ug/L	U	F	0.3		
GS59	SL	1/3/2019	RFS01-01.1904012-002	7440-61-1	Uranium	N	2.55	ug/L	B	F	0.067		
GS59	SL	1/3/2019	RFS01-01.1904012-001	7440-66-6	Zinc	Y	3.3	ug/L	U	F	3.3		
GS59	SL	1/8/2019	RFS01-02.1901012-002	71-55-6	1,1,1-Trichloroethane	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	79-34-5	1,1,2,2-Tetrachloroethane	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	79-00-5	1,1,2-Trichloroethane	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	75-35-4	1,1-Dichloroethene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	120-82-1	1,2,4-Trichlorobenzene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	95-50-1	1,2-Dichlorobenzene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	107-06-2	1,2-Dichloroethane	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	78-87-5	1,2-Dichloropropane	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	541-73-1	1,3-Dichlorobenzene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	106-46-7	1,4-Dichlorobenzene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	71-43-2	Benzene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	75-25-2	Bromoform	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	56-23-5	Carbon tetrachloride	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	108-90-7	Chlorobenzene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	67-66-3	Chloroform	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	74-87-3	Chloromethane	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	156-59-2	cis-1,2-Dichloroethene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	100-41-4	Ethylbenzene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	87-68-3	Hexachlorobutadiene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	7439-97-6	Mercury	N	0.067	ug/L	U	F	0.067		
GS59	SL	1/8/2019	RFS01-02.1901012-002	75-09-2	Methylene chloride	N	1.67	ug/L	U	F	1.67		
GS59	SL	1/8/2019	RFS01-02.1901012-002	91-20-3	Naphthalene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	100-42-5	Styrene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	127-18-4	Tetrachloroethene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	108-88-3	Toluene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	1330-20-7	Total Xylenes	N	1	ug/L	U	F	1		
GS59	SL	1/8/2019	RFS01-02.1901012-002	156-60-5	trans-1,2-Dichloroethene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	79-01-6	Trichloroethene	N	0.333	ug/L	U	F	0.333		
GS59	SL	1/8/2019	RFS01-02.1901012-002	75-01-4	Vinyl chloride	N	0.333	ug/L	U	F	0.333		
GS59	SL	3/28/2019	RFS01-02.1905014-005	7440-38-2	Arsenic	N	0.33	ug/L	U	D	0.33		J

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GS59	SL	3/28/2019	RFS01-02.1905014-002	7440-38-2	Arsenic	N	0.33	ug/L	U	F	0.33		J
GS59	SL	3/28/2019	RFS01-02.1905014-005	7440-41-7	Beryllium	N	0.08	ug/L	U	D	0.08		
GS59	SL	3/28/2019	RFS01-02.1905014-002	7440-41-7	Beryllium	N	0.11	ug/L	J	F	0.08		
GS59	SL	3/28/2019	RFS01-02.1905014-005	7440-42-8	Boron	N	16	ug/L		D	4.4		
GS59	SL	3/28/2019	RFS01-02.1905014-002	7440-42-8	Boron	N	16	ug/L		F	4.4		
GS59	SL	3/28/2019	RFS01-02.1905014-005	7440-43-9	Cadmium	Y	0.27	ug/L	U	D	0.27		
GS59	SL	3/28/2019	RFS01-02.1905014-002	7440-43-9	Cadmium	Y	0.27	ug/L	U	F	0.27		
GS59	SL	3/28/2019	RFS01-02.1905014-005	7440-47-3	Chromium	N	0.5	ug/L	U	D	0.5		
GS59	SL	3/28/2019	RFS01-02.1905014-002	7440-47-3	Chromium	N	0.5	ug/L	U	F	0.5		
GS59	SL	3/28/2019	RFS01-02.1905014-005	7440-50-8	Copper	Y	2	ug/L		D	0.56		J
GS59	SL	3/28/2019	RFS01-02.1905014-002	7440-50-8	Copper	Y	1.6	ug/L	J	F	0.56		J
GS59	SL	3/28/2019	RFS01-02.1905014-005	7439-92-1	Lead	Y	0.18	ug/L	U	D	0.18		
GS59	SL	3/28/2019	RFS01-02.1905014-002	7439-92-1	Lead	Y	0.18	ug/L	U	F	0.18		
GS59	SL	3/28/2019	RFS01-02.1905014-005	7440-02-0	Nickel	Y	0.8	ug/L	J	D	0.3		
GS59	SL	3/28/2019	RFS01-02.1905014-002	7440-02-0	Nickel	Y	0.79	ug/L	J	F	0.3		
GS59	SL	3/28/2019	RFS01-02.1905014-005	7782-49-2	Selenium	N	0.37	ug/L	U	D	0.37		
GS59	SL	3/28/2019	RFS01-02.1905014-002	7782-49-2	Selenium	N	0.37	ug/L	U	F	0.37		
GS59	SL	3/28/2019	RFS01-02.1905014-005	7440-22-4	Silver	Y	0.033	ug/L	U	D	0.033		
GS59	SL	3/28/2019	RFS01-02.1905014-002	7440-22-4	Silver	Y	0.033	ug/L	U	F	0.033		
GS59	SL	3/28/2019	RFS01-02.1905014-005	7440-61-1	Uranium	N	1.7	ug/L		D	0.05		
GS59	SL	3/28/2019	RFS01-02.1905014-002	7440-61-1	Uranium	N	2	ug/L		F	0.05		
GS59	SL	3/28/2019	RFS01-02.1905014-005	7440-66-6	Zinc	Y	2	ug/L	U	D	2		
GS59	SL	3/28/2019	RFS01-02.1905014-002	7440-66-6	Zinc	Y	2	ug/L	U	F	2		
P416589	WL	1/25/2019	RFS01-10.1901010-013	71-55-6	1,1,1-Trichloroethane	N	0.16	ug/L	U	F	0.16		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	79-34-5	1,1,2,2-Tetrachloroethane	N	0.21	ug/L	U	F	0.21		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	79-00-5	1,1,2-Trichloroethane	N	0.27	ug/L	U	F	0.27		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	75-35-4	1,1-Dichloroethene	N	0.23	ug/L	U	F	0.23		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	120-82-1	1,2,4-Trichlorobenzene	N	0.21	ug/L	U	F	0.21		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	95-50-1	1,2-Dichlorobenzene	N	0.15	ug/L	U	F	0.15		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	107-06-2	1,2-Dichloroethane	N	0.13	ug/L	U	F	0.13		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	78-87-5	1,2-Dichloropropane	N	0.18	ug/L	U	F	0.18		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	541-73-1	1,3-Dichlorobenzene	N	0.13	ug/L	U	F	0.13		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	106-46-7	1,4-Dichlorobenzene	N	0.16	ug/L	U	F	0.16		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	91-58-7	2-Chloronaphthalene	N	0.38	ug/L	U	F	0.38		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-014	83-32-9	Acenaphthene	N	0.012	ug/L	U	F	0.012		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-014	120-12-7	Anthracene	N	0.015	ug/L	U	F	0.015		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	7440-38-2	Arsenic	Y	0.33	ug/L	U	F	0.33		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	71-43-2	Benzene	N	0.16	ug/L	U	F	0.16		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-014	50-32-8	Benzo(a)pyrene	N	0.0056	ug/L	U	F	0.0056		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-014	191-24-2	Benzo(g,h,i)Perylene	N	0.0039	ug/L	U	F	0.0039		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	7440-41-7	Beryllium	Y	0.08	ug/L	U	F	0.08		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	108-60-1	Bis(2-chloroisopropyl) ether	N	0.41	ug/L	U	F	0.41		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	117-81-7	Bis(2-ethylhexyl) phthalate	N	0.82	ug/L	U	F	0.82		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	7440-42-8	Boron	Y	5.5	ug/L	J	F	4.4		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	75-25-2	Bromoform	N	0.19	ug/L	U	F	0.19		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	7440-43-9	Cadmium	Y	0.27	ug/L	U	F	0.27		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	56-23-5	Carbon tetrachloride	N	0.19	ug/L	U	F	0.19		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	108-90-7	Chlorobenzene	N	0.17	ug/L	U	F	0.17		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	67-66-3	Chloroform	N	0.16	ug/L	U	F	0.16		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	74-87-3	Chloromethane	N	0.3	ug/L	U	F	0.3		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	7440-47-3	Chromium	Y	0.5	ug/L	U	F	0.5		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-014	218-01-9	Chrysene	N	0.0046	ug/L	J	F	0.0035		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	156-59-2	cis-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ

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P416589	WL	1/25/2019	RFS01-10.1901010-013	7440-50-8	Copper	Y	0.56	ug/L	U	F	0.56		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-014	53-70-3	Dibenz(a,h)anthracene	N	0.0052	ug/L	U	F	0.0052		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	84-66-2	Diethyl phthalate	N	0.56	ug/L	U	F	0.56		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	131-11-3	Dimethyl phthalate	N	0.31	ug/L	U	F	0.31		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	84-74-2	Di-n-butyl phthalate	N	1.7	ug/L	U	F	1.7		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	100-41-4	Ethylbenzene	N	0.16	ug/L	U	F	0.16		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-014	206-44-0	Fluoranthene	N	0.0065	ug/L	J	F	0.0049		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-014	86-73-7	Fluorene	N	0.02	ug/L	U	F	0.02		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	87-68-3	Hexachlorobutadiene	N	0.36	ug/L	U	F	0.36		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	67-72-1	Hexachloroethane	N	3.1	ug/L	U	F	3.1		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	78-59-1	Isophorone	N	0.31	ug/L	U	F	0.31		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	7439-92-1	Lead	Y	0.18	ug/L	U	F	0.18		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	7439-97-6	Mercury	Y	0.027	ug/L	U	F	0.027		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	75-09-2	Methylene chloride	N	0.32	ug/L	U	F	0.32		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-014	91-20-3	Naphthalene	N	0.0058	ug/L	U	F	0.0058		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	7440-02-0	Nickel	Y	6	ug/L		F	0.3		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-014	129-00-0	Pyrene	N	0.0088	ug/L	U	F	0.0088		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	7782-49-2	Selenium	Y	0.7	ug/L	U	F	0.7		FJQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	7440-22-4	Silver	Y	0.26	ug/L	J	F	0.033		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	100-42-5	Styrene	N	0.17	ug/L	U	F	0.17		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	127-18-4	Tetrachloroethene	N	0.2	ug/L	U	F	0.2		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	108-88-3	Toluene	N	0.17	ug/L	U	F	0.17		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	1330-20-7	Total Xylenes	N	0.19	ug/L	U	F	0.19		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	156-60-5	trans-1,2-Dichloroethene	N	0.15	ug/L	U	F	0.15		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	79-01-6	Trichloroethene	N	0.16	ug/L	U	F	0.16		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	7440-61-1	Uranium	Y	1.8	ug/L		F	0.05		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	75-01-4	Vinyl chloride	N	0.1	ug/L	U	F	0.1		FQ
P416589	WL	1/25/2019	RFS01-10.1901010-013	7440-66-6	Zinc	Y	2	ug/L	U	F	2		FQ
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	71-55-6	1,1,1-Trichloroethane	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	79-34-5	1,1,2,2-Tetrachloroethane	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	79-00-5	1,1,2-Trichloroethane	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	75-35-4	1,1-Dichloroethene	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	120-82-1	1,2,4-Trichlorobenzene	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	95-50-1	1,2-Dichlorobenzene	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	107-06-2	1,2-Dichloroethane	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	78-87-5	1,2-Dichloropropane	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	541-73-1	1,3-Dichlorobenzene	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	106-46-7	1,4-Dichlorobenzene	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-004	7440-38-2	Arsenic	N	7.86	ug/L	B	F	2		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	71-43-2	Benzene	N	1.95	ug/L		F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-004	7440-41-7	Beryllium	N	0.2	ug/L	U	F	0.2		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-004	7440-42-8	Boron	N	1360	ug/L		F	104		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	75-25-2	Bromoform	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	7440-43-9	Cadmium	Y	0.3	ug/L	U	F	0.3		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	56-23-5	Carbon tetrachloride	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	108-90-7	Chlorobenzene	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	67-66-3	Chloroform	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	74-87-3	Chloromethane	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-004	7440-47-3	Chromium	N	3.24	ug/L	B	F	3		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	156-59-2	cis-1,2-Dichloroethene	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	7440-50-8	Copper	Y	0.3	ug/L	U	F	0.3		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	100-41-4	Ethylbenzene	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	87-68-3	Hexachlorobutadiene	N	0.333	ug/L	U	F	0.333		

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PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	7439-92-1	Lead	Y	0.5	ug/L	U	F	0.5		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	75-09-2	Methylene chloride	N	1.67	ug/L	U	F	1.67		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	91-20-3	Naphthalene	N	21.6	ug/L		F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	7440-02-0	Nickel	Y	5.8	ug/L	B	F	0.6		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-004	7782-49-2	Selenium	N	2	ug/L	U	F	2		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	7440-22-4	Silver	Y	0.3	ug/L	U	F	0.3		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	100-42-5	Styrene	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	127-18-4	Tetrachloroethene	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	108-88-3	Toluene	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	1330-20-7	Total Xylenes	N	1.18	ug/L	J	F	1		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	156-60-5	trans-1,2-Dichloroethene	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	79-01-6	Trichloroethene	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-004	7440-61-1	Uranium	N	0.067	ug/L	U	F	0.067		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	75-01-4	Vinyl chloride	N	0.333	ug/L	U	F	0.333		
PLFSEEPINF	TS	1/8/2019	RFS01-02.1901012-003	7440-66-6	Zinc	Y	91.1	ug/L	B	F	3.3		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	71-55-6	1,1,1-Trichloroethane	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	79-34-5	1,1,2,2-Tetrachloroethane	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	79-00-5	1,1,2-Trichloroethane	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	75-35-4	1,1-Dichloroethene	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	120-82-1	1,2,4-Trichlorobenzene	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	95-50-1	1,2-Dichlorobenzene	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	107-06-2	1,2-Dichloroethane	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	78-87-5	1,2-Dichloropropane	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	541-73-1	1,3-Dichlorobenzene	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	106-46-7	1,4-Dichlorobenzene	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	91-58-7	2-Chloronaphthalene	N	0.394	ug/L	U	F	0.394		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-007	83-32-9	Acenaphthene	N	1.63	ug/L		F	0.0283		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-007	120-12-7	Anthracene	N	0.387	ug/L		F	0.0283		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-006	7440-38-2	Arsenic	N	6.73	ug/L	B	F	2		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	71-43-2	Benzene	N	0.7	ug/L	J	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-007	50-32-8	Benzo(a)pyrene	N	0.0283	ug/L	U	F	0.0283		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-007	191-24-2	Benzo(g,h,i)Perylene	N	0.0283	ug/L	U	F	0.0283		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-006	7440-41-7	Beryllium	N	0.2	ug/L	U	F	0.2		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	108-60-1	Bis(2-chloroisopropyl) ether	N	2.88	ug/L	U	F	2.88		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	117-81-7	Bis(2-ethylhexyl) phthalate	N	0.288	ug/L	U	F	0.288		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-006	7440-42-8	Boron	N	1100	ug/L		F	104		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	75-25-2	Bromoform	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	7440-43-9	Cadmium	Y	0.3	ug/L	U	F	0.3		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	56-23-5	Carbon tetrachloride	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	108-90-7	Chlorobenzene	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	67-66-3	Chloroform	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	74-87-3	Chloromethane	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-006	7440-47-3	Chromium	N	3	ug/L	U	F	3		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-007	218-01-9	Chrysene	N	0.0283	ug/L	U	F	0.0283		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	156-59-2	cis-1,2-Dichloroethene	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	7440-50-8	Copper	Y	0.3	ug/L	U	F	0.3		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-007	53-70-3	Dibenz(a,h)anthracene	N	0.0283	ug/L	U	F	0.0283		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	84-66-2	Diethyl phthalate	N	0.288	ug/L	U	F	0.288		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	131-11-3	Dimethyl phthalate	N	0.288	ug/L	U	F	0.288		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	84-74-2	Di-n-butyl phthalate	N	0.288	ug/L	U	F	0.288		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	100-41-4	Ethylbenzene	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-007	206-44-0	Fluoranthene	N	0.491	ug/L		F	0.0283		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-007	86-73-7	Fluorene	N	1.44	ug/L		F	0.0283		

RFLMA Data

LOCATION_CODE	LOCATION_TYPE	DATE SAMPLED	SAMPLE CODE	CAS	ANALYTE	FILTRATION STATUS	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	87-68-3	Hexachlorobutadiene	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	67-72-1	Hexachloroethane	N	2.88	ug/L	U	F	2.88		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	78-59-1	Isophorone	N	3.37	ug/L	U	F	3.37		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	7439-92-1	Lead	Y	0.5	ug/L	U	F	0.5		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	75-09-2	Methylene chloride	N	1.67	ug/L	U	F	1.67		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-007	91-20-3	Naphthalene	N	4.57	ug/L		F	0.0283		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	7440-02-0	Nickel	Y	5.56	ug/L	B	F	0.6		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-007	129-00-0	Pyrene	N	0.283	ug/L		F	0.0283		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-006	7782-49-2	Selenium	N	2	ug/L	U	F	2		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	7440-22-4	Silver	Y	0.3	ug/L	U	F	0.3		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	100-42-5	Styrene	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	127-18-4	Tetrachloroethene	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	108-88-3	Toluene	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	1330-20-7	Total Xylenes	N	1	ug/L	U	F	1		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	156-60-5	trans-1,2-Dichloroethene	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	79-01-6	Trichloroethene	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-006	7440-61-1	Uranium	N	0.582	ug/L	B	F	0.067		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	75-01-4	Vinyl chloride	N	0.333	ug/L	U	F	0.333		
PLFSYSEFF	TS	1/8/2019	RFS01-02.1901012-005	7440-66-6	Zinc	Y	48.8	ug/L	B	F	3.3		
SPIN	TS	1/14/2019	RFS01-04.1901015-005	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	580	mg/L		F	1.9		
SPIN	TS	1/14/2019	RFS01-04.1901015-005	7440-61-1	Uranium	N	63	ug/L		F	0.05		
SPIN	TS	1/31/2019	RFS01-06.1902014-006	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	600	mg/L		F	1.9		J
SPIN	TS	1/31/2019	RFS01-06.1902014-016	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	600	mg/L		D	1.9		J
SPIN	TS	1/31/2019	RFS01-06.1902014-006	7440-61-1	Uranium	N	72	ug/L		F	0.05		
SPIN	TS	1/31/2019	RFS01-06.1902014-016	7440-61-1	Uranium	N	70	ug/L		D	0.05		
SPIN	TS	2/14/2019	RFS01-04.1902016-005	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	520	mg/L		F	1.9		
SPIN	TS	2/14/2019	RFS01-04.1902016-005	7440-61-1	Uranium	N	60	ug/L		F	0.05		
SPIN	TS	2/28/2019	RFS01-06.1903015-006	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	600	mg/L		F	3.8		
SPIN	TS	2/28/2019	RFS01-06.1903015-006	7440-61-1	Uranium	N	82	ug/L		F	0.05		
SPIN	TS	3/18/2019	RFS01-04.1903017-005	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	520	mg/L	B	F	1.9		
SPIN	TS	3/18/2019	RFS01-04.1903017-005	7440-61-1	Uranium	N	66	ug/L		F	0.05		
SPIN	TS	3/28/2019	RFS01-06.1903016-006	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	610	mg/L		F	1.9		
SPIN	TS	3/28/2019	RFS01-06.1903016-006	7440-61-1	Uranium	N	73	ug/L		F	0.05		
SPOUT	TS	1/14/2019	RFS01-04.1901015-006	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	2.4	mg/L		F	0.019		
SPOUT	TS	1/14/2019	RFS01-04.1901015-006	7440-61-1	Uranium	N	61	ug/L		F	0.05		
SPOUT	TS	1/31/2019	RFS01-06.1902014-007	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	16	mg/L		F	0.095		J
SPOUT	TS	1/31/2019	RFS01-06.1902014-007	7440-61-1	Uranium	N	65	ug/L		F	0.05		
SPOUT	TS	2/14/2019	RFS01-04.1902016-006	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	41	mg/L		F	0.19		
SPOUT	TS	2/14/2019	RFS01-04.1902016-006	7440-61-1	Uranium	N	63	ug/L		F	0.05		
SPOUT	TS	2/28/2019	RFS01-06.1903015-007	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	28	mg/L		F	0.19		
SPOUT	TS	2/28/2019	RFS01-06.1903015-007	7440-61-1	Uranium	N	71	ug/L		F	0.05		
SPOUT	TS	3/18/2019	RFS01-04.1903017-006	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	0.073	mg/L	B	F	0.019		U
SPOUT	TS	3/18/2019	RFS01-04.1903017-006	7440-61-1	Uranium	N	54	ug/L		F	0.05		
SPOUT	TS	3/28/2019	RFS01-06.1903016-007	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	0.048	mg/L	J B	F	0.019		U
SPOUT	TS	3/28/2019	RFS01-06.1903016-007	7440-61-1	Uranium	N	33	ug/L		F	0.05		
SW093	SL	1/3/2019	RFS01-01.1904012-003	14596-10-2	Americium-241	N	-0.0689	pCi/L	U	F	0	0.0651	
SW093	SL	1/3/2019	RFS01-01.1904012-003	7440-41-7	Beryllium	N	1	ug/L	U	F	1		
SW093	SL	1/3/2019	RFS01-01.1904012-003	7440-43-9	Cadmium	Y	0.3	ug/L	U	F	0.3		
SW093	SL	1/3/2019	RFS01-01.1904012-003	7440-47-3	Chromium	N	1	ug/L	U	F	1		
SW093	SL	1/3/2019	RFS01-01.1904012-003	PU-239,240	Plutonium-239, 240	N	0.00302	pCi/L	U	F	0	0.0139	
SW093	SL	1/3/2019	RFS01-01.1904012-003	7440-22-4	Silver	Y	0.3	ug/L	U	F	0.3		
SW093	SL	1/3/2019	RFS01-01.1904012-003	7440-61-1	Uranium	N	5.25	ug/L		F	0.067		
SW093	SL	3/28/2019	RFS01-13.1904015-003	14596-10-2	Americium-241	N	0.00268	pCi/L	U	F	0	0.00911	

RFLMA Data

LOCATION_CODE	LOCATION_TYPE	DATE SAMPLED	SAMPLE CODE	CAS	ANALYTE	FILTRATION STATUS	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS
SW093	SL	3/28/2019	RFS01-13.1904015-003	7440-41-7	Beryllium	N	1	ug/L	U	F	1		
SW093	SL	3/28/2019	RFS01-13.1904015-003	7440-43-9	Cadmium	Y	0.3	ug/L	U	F	0.3		
SW093	SL	3/28/2019	RFS01-13.1904015-003	7440-47-3	Chromium	N	1	ug/L	U	F	1		
SW093	SL	3/28/2019	RFS01-13.1904015-003	PU-239,240	Plutonium-239, 240	N	0.00336	pCi/L	U	F	0	0.00728	
SW093	SL	3/28/2019	RFS01-13.1904015-003	7440-22-4	Silver	Y	0.3	ug/L	U	F	0.3		
SW093	SL	3/28/2019	RFS01-13.1904015-003	7440-61-1	Uranium	N	3.28	ug/L		F	0.067		
WALPOC	SL	1/3/2019	RFS01-05.1904016-001	14596-10-2	Americium-241	N	0.0135	pCi/L	U	F	0	0.0237	
WALPOC	SL	1/3/2019	RFS01-05.1904016-001	PU-239,240	Plutonium-239, 240	N	-0.00387	pCi/L	U	F	0	0.0178	
WALPOC	SL	1/3/2019	RFS01-05.1904016-001	7440-61-1	Uranium	N	12.9	ug/L		F	0.067		
WALPOC	SL	3/18/2019	RFS01-04.1903017-016	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	0.22	mg/L	B	F	0.019		
WOMPOC	SL	1/3/2019	RFS01-05.1902010-002	14596-10-2	Americium-241	N	0.0089	pCi/L	U	F	0	0.0105	
WOMPOC	SL	1/3/2019	RFS01-05.1902010-002	PU-239,240	Plutonium-239, 240	N	9.31E-10	pCi/L	U	F	0	0.00758	
WOMPOC	SL	1/3/2019	RFS01-05.1902010-002	7440-61-1	Uranium	N	4.25	ug/L		F	0.067		
WOMPOC	SL	2/12/2019	RFS01-05.1903011-002	14596-10-2	Americium-241	N	-0.00115	pCi/L	U	F	0	0.00505	
WOMPOC	SL	2/12/2019	RFS01-05.1903011-002	PU-239,240	Plutonium-239, 240	N	-0.0206	pCi/L	U	F	0	0.0142	
WOMPOC	SL	2/12/2019	RFS01-05.1903011-002	7440-61-1	Uranium	N	3.7	ug/L		F	0.067		
WOMPOC	SL	3/11/2019	RFS01-13.1904014-002	14596-10-2	Americium-241	N	0.0255	pCi/L	U	F	0	0.0412	
WOMPOC	SL	3/11/2019	RFS01-13.1904014-002	PU-239,240	Plutonium-239, 240	N	-0.00569	pCi/L	U	F	0	0.0116	
WOMPOC	SL	3/11/2019	RFS01-13.1904014-002	7440-61-1	Uranium	N	3.28	ug/L		F	0.067		
WOMPOC	SL	3/28/2019	RFS01-05.1904014-004	14596-10-2	Americium-241	N	0.00174	pCi/L	U	F	0	0.0123	
WOMPOC	SL	3/28/2019	RFS01-05.1904014-004	PU-239,240	Plutonium-239, 240	N	0.00477	pCi/L	U	F	0	0.00935	
WOMPOC	SL	3/28/2019	RFS01-05.1904014-004	7440-61-1	Uranium	N	3.44	=C478:I8		F	0.067		

EXPLANATION

FILTRATION STATUS

N = Sample was not filtered.
Y = Sample was filtered.

UNITS

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

<NULL>	No qualifiers
F	Low flow sampling method used.

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

RFLMA Data

LOCATION_CODE	LOCATION_TYPE	DATE SAMPLED	SAMPLE CODE	CAS	ANALYTE	FILTRATION STATUS	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS

G	Possible grout contamination, pH > 9.	SL	SURFACE LOCATION
J	Estimated value.	TS	TREATMENT SYSTEM
L	Less than 3 bore volumes purged prior to sampling.	WL	WELL
Q	Qualitative result due to sampling technique		
R	Unusable result.	**COLLECTION_METHOD**	
U	Parameter analyzed for but was not detected.	G	Grab
X	Location is undefined.	C	Composite
999	Validation not complete		

Appendix B2
Information for RFLMA Composite Samples with Unavailable Data

Location	Sample Dates*	Status
GS51	1/3/2019 15:45 -->	In Progress
SW027	1/3/2019 16:00 -->	In Progress

* Analytical results are reported with the start date of the composite sampling period
--> Composite sample end date to be determined
NSQ: non-sufficient quantity for analysis

Draft 2020 Work Plan

- Cover memo
- Draft work plan

Draft 2020 Budget

- Cover memo
- Draft budget

ROCKY FLATS STEWARDSHIP COUNCIL

P.O. Box 17670 (303) 412-1200
Boulder, CO 80308-0670
www.rockyflatssc.org

MEMORANDUM

TO: Board
FROM: David Abelson & Melissa Weakley
SUBJECT: Draft 2020 Work Plan
DATE: August 27, 2019

The Board will begin reviewing its 2020 work plan (draft plan attached). The few changes we are proposing are noted using track changes. We believe they are self-explanatory and will be prepared to answer your questions at the meeting.

Any changes to the draft plan as presented will be incorporated into a revised draft that will be reviewed, modified as necessary, and approved at the October 28th meeting.

ROCKY FLATS STEWARDSHIP COUNCIL

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Jefferson County ~ Boulder County ~ City and County of Broomfield ~ City of Arvada ~ City of Boulder
City of Golden ~ City of Northglenn ~ City of Thornton ~ City of Westminster ~ Town of Superior
League of Women Voters ~ Rocky Flats Cold War Museum ~ Rocky Flats Homesteaders
Kim Griffiths

2020 Work Plan

Draft #1, September 9, 2019

Mission:

The mission of the Rocky Flats Stewardship Council is to provide continuing local engagement on activities occurring at the Rocky Flats site regarding long-term stewardship of residual contamination and refuge management; to provide a forum to track issues related to former site employees, including but not limited to long-term health benefits and pension programs; to provide an ongoing mechanism to help maintain public knowledge of Rocky Flats and the ongoing needs and responsibilities regarding contaminant management and refuge management; and to provide an ongoing forum to engage on all other issues pertinent to Rocky Flats, as determined by the Stewardship Council Board of Directors.

Background:

The Stewardship Council occupies two roles: (1) serving as the Local Stakeholder Organization (LSO) for Rocky Flats, and (2) engaging USFWS on the management of the Rocky Flats National Wildlife Refuge. To help ensure the Board and public understand when the Stewardship Council acts in its capacity as the Rocky Flats LSO and when it engages on issues beyond its scope as the LSO, the plan includes headers indicating "LSO" and "Non-LSO" activities.

Local Stakeholder Organization (LSO)

Legacy Management approved the LSO Plan for Rocky Flats on December 21, 2005. That Plan identifies how the main responsibilities Congress identified in the legislation authorizing the creation of LSO (Section 3120 of the Fiscal Year 2005 Defense Authorization bill) are to be carried out at Rocky Flats. These responsibilities are summarized as follows:

- Solicit and encourage public participation in appropriate activities relating to the closure and post-closure operations of the site.
- Disseminate information on the closure and post-closure operations of the site to the State, local and Tribal governments in the vicinity of the site, as well as persons and entities having a stake in the closure or post-closure operations of the site.
- Transmit to appropriate officers and employees of DOE questions and concerns of governments, persons, and entities referred to in the preceding bullet.

In fulfilling these responsibilities, the Stewardship Council has been tasked with helping DOE meet its public involvement obligations identified in the Legacy Management Public Involvement Plan (LMPIP) for Rocky Flats.

Rocky Flats National Wildlife Refuge (non-LSO activity)
"The Rocky Flats National Wildlife Refuge Act of 2001" established that Rocky Flats shall become a national wildlife refuge following EPA certification that the site has been cleaned to the agreed-upon regulatory standards. In July 2007 DOE conveyed jurisdictional responsibility of nearly 4,000 acres to the Department of the Interior for the Rocky Flats National Wildlife Refuge. Additional lands were conveyed in 2014.

The USFWS opened the Rocky Flats National Wildlife Refuge for guided tours in 2015 and for public recreation in 2018. Additional trails will open in the Refuge in the coming years.

Work Plan Elements

The Work Plan is divided into the following five sections:

1. DOE Management Responsibilities (LSO activity)
2. Former Rocky Flats Workforce (LSO activity)
3. Outreach (LSO activity with two exceptions noted)
4. Rocky Flats National Wildlife Refuge (non-LSO activity)
5. Business Operations (LSO activity)

DOE Management Responsibilities

LSO Activity

Overview:
One of the key roles of the Stewardship Council continues to be to understand and engage the various issues regarding the cleanup and post-closure management of Rocky Flats, and to provide a forum to foster discussions among DOE, the regulatory agencies, and community members.

2020 Activities:

1. Review information regarding the long-term stewardship and management of the Rocky Flats site, including but not limited to the results of the operational and performance monitoring data of site operations and DOE status reports.
2. Continue to identify key questions about the cleanup and ongoing management, and evaluate for remedy effectiveness and impacts to human and ecological receptors.
3. Track soil sampling programs by local governments, Jefferson Public Parkway Highway Authority, USFWS and others.

4. Track the progress made in treating contaminated groundwater at the groundwater treatment systems, including the ongoing uranium treatment evaluation at the Solar Ponds Plume Treatment System (SPPTS).
5. Track the ongoing investigation into the source(s) of elevated actinide levels found in surface water. Of particular note are the cyclic uranium levels in North Walnut Creek at point of compliance WALPOC, elevated levels of actinides at point of evaluation GS10 on South Walnut Creek, and elevated plutonium levels at point of evaluation SW027 in the Woman Creek drainage.
6. Track progress made in addressing slumping at the Original Landfill (OLF).
7. Track issues related to slumping along North Walnut Creek.
8. Track issues related to additional sampling off-site and in the Rocky Flats Refuge. (Note: While the analysis might be conducted by local governments and USFWS, the issue is an LSO issue as it goes to the historic use of Rocky Flats as a weapons plant and associated residual contamination.)
9. Continue to participate in Adaptive Management Plan (AMP) meetings, including technical evaluations of data; track implementation of AMP results, which could include breaching the terminal ponds on Woman and Walnut Creeks.
10. Continue participating in DOE, CDPHE and/or EPA assessment(s) of remedy operations and effectiveness.
11. Work with DOE on implementing its Legacy Management Closure Public Involvement Plan (LMPIP), including the meetings DOE identified in the LMPIP.
12. Review DOE budgets for implementation of DOE responsibilities.
13. As needed, evaluate legal and regulatory issues regarding implementation of RFLMA and related site documents, and provide information to the Stewardship Council and to the community.
14. Work with DOE and the regulators to understand technical data regarding implementation and effectiveness of cleanup remedies and long-term controls, and provide information to the Stewardship Council and to the community.
15. Transmit to appropriate officers and employees of the DOE questions and concerns of governments, persons and entities regarding Rocky Flats.
16. As opportunities allow, continue to work with DOE on the development of the visitor center.
17. Support the ongoing efforts of the Rocky Flats Cold War Museum to educate successive generations about the history of Rocky Flats, particularly about residual contamination and continued need for long-term stewardship.
18. Track the development of Jefferson County Parkway as it relates to Rocky Flats.
19. Track Congressional action on Rep. Neguse's CERCLA minerals development bill (H.R. 3747 "On or Under Act") and engage as needed.

Former Rocky Flats Workforce

LSO Activity

Overview:
Many of the former site workers are the constituents of the Stewardship Council governments. Further, the Rocky Flats Homesteaders, which represents more than 1,800 former site workers, sits on the Board of the Stewardship Council. For these and other reasons, as noted in the Stewardship Council's IGA, worker issues will, as needed, continue to be an important component of the Stewardship Council's work. At this time, worker issues largely revolve around claims under the Energy Employee Occupational Illness Compensation Program Act (EEOICPA). Workers address claims on an individual basis.

2020 Activities:
1. Forward worker concerns, as necessary.

Outreach

LSO Activity with two exceptions noted

Overview:
As the LSO for Rocky Flats, a core responsibility for the Stewardship Council is providing a forum to help engage people on Rocky Flats and the ongoing management needs. As part of this mission, it remains essential that the Stewardship Council maintain close communications with DOE, EPA, CDPHE, and Congress.

The local communities have developed over the period of many years a very good working relationship with the two primary regulatory agencies that oversee the site, EPA and CDPHE. It is imperative that the Stewardship Council continue this tradition of partnership with these agencies.

The Colorado congressional delegation likewise plays a critical role in addressing Rocky Flats issues. The Stewardship Council shall remain an important mechanism for addressing questions and concerns of the delegation, and for providing ongoing interface with the delegation on the numerous site-specific issues and concerns.

2020 Activities:
1. Hold quarterly Board meetings and provide opportunity for comment and dialogue.
2. Communicate with other local officials, DOE, state and federal regulators, the Colorado congressional delegation, and other stakeholders about the Stewardship Council's mission and activities, as appropriate.
3. Take public comment on issues related to DOE and USFWS responsibilities at Rocky Flats.
4. Evaluate Congressional action affecting DOE and USFWS and administrative action that could affect Rocky Flats.

5. Maintain communication with federal and state legislators, as appropriate, and track federal and state legislation as needed.
6. Provide opportunities at meetings and in between meetings for education and feedback.
7. Work with DOE to disseminate information on the cleanup and post-closure operations of Rocky Flats.
8. Participate in local, regional and national forums.
9. Implement mechanisms for the Stewardship Council and the general public to be informed of the results of the monitoring data and other relevant information, recognizing that not all communication between DOE and Rocky Flats constituencies will flow through the Stewardship Council.

Rocky Flats National Wildlife Refuge

Non-LSO Activity

Overview:
One of the Stewardship Council's roles is to engage on issues related to the development and management of the future Rocky Flats National Wildlife Refuge. In September 2018, USFWS began allowing public recreation at the Rocky Flats National Wildlife Refuge.

In addition, USFWS and DOE are discussing a partnership to develop a visitor's center. That center would be sited on refuge lands, with USFWS taking lead on the public engagement process. As the LSO for Rocky Flats, the Stewardship Council would work with DOE on that agency's role in developing the visitor center. (That work with DOE is an LSO activity.) USFWS would take lead on public engagement; Stewardship Council members may be involved in that process.

The items identified in this part of the work plan only concern USFWS.

2020 Activities:
1. Track agency and Congressional action affecting funding for USFWS and the Rocky Flats National Wildlife Refuge. Engage as needed.
2. Track issues related to the development of the Rocky Flats visitor center.[1] Engage as needed.
3. Be apprised of the Rocky Flats National Wildlife Refuge site conservation plan, with an emphasis on the proposed trail plan.
4. Forward information regarding the Rocky Flats National Wildlife Refuge to the Stewardship Council Board of Directors and the public, as appropriate.
5. Track issues related to the development of a trail network connecting Rocky Flats National Wildlife Refuge, Rocky Mountain Arsenal National Wildlife Refuge, Two Ponds National Wildlife Refuge, and Rocky Mountain National Park.

[1] As noted above, as the LSO for Rocky Flats, the Stewardship Council will work with DOE on that agency's role in developing the visitor center. The item identified in this part of the work plan only concerns USFWS' role.

Business Operations

LSO Activity

Overview:

Business Operations refers to organizational management responsibilities – conducting the annual audit, submitting financial reports to DOE, adopting annual Work Plan and annual budget, etc.

2020 Activities:

1. Work with DOE to ensure the Stewardship Council continues to meet the needs as the LSO for Rocky Flats.
2. Operate the Stewardship Council in compliance with state and federal regulations.
3. Conduct a financial audit.
4. Prepare and adopt the annual work plan and the annual budget.
5. Submit financial reports to DOE.
6. Review, and renew as necessary, consulting agreements.
7. Provide an annual report on activities.
8. Appoint community members to the Board of Directors (two seats).

ROCKY FLATS STEWARDSHIP COUNCIL

P.O. Box 17670 (303) 412-1200
Boulder, CO 80308-0670
www.rockyflatssc.org

Jefferson County -- Boulder County -- City and County of Broomfield -- City of Arvada -- City of Boulder
City of Golden -- City of Northglenn -- City of Thornton -- City of Westminster -- Town of Superior
League of Women Voters -- Rocky Flats Cold War Museum -- Rocky Flats Homesteaders
Kim Griffiths

MEMORANDUM

TO: Board
FROM: David Abelson
SUBJECT: Initial review of 2020 budget
DATE: August 27, 2019

Attached for your review is the first draft of the Stewardship Council's fiscal year 2020 budget. As a unit of local government under the Colorado Constitution, the Stewardship Council must review the budget at this meeting and hold a budget hearing at a second meeting prior to adopting a final budget. The budget hearing will be held at the October 28th meeting, at which time the Board will adopt the budget.

Budget Overview

As is the case each year, the budget is for more than the anticipated costs (approximately 11% above projected costs). Over-budgeting provides the Board latitude in how it manages expenditures without requiring supplemental budgeting should expenditures increase. Over the past few years, organizational costs have remained relatively level.

The 2020 budget is essentially the same budget that the Board approved for 2019.

Please let me know what questions you have.

ROCKY FLATS STEWARDSHIP COUNCIL

2020 Budget -- Draft #1, September 2019

			2020 Budget Amounts	2020 Anticipated Expenditures	2019 Budget	2019 Actual/ Projected Expenses*	2019 Budget vs. 2019 Actual/Projected Expenses	2018 Expenses
A.	**Personnel**		**$ 93,000.00**	$ 93,000.00	$ 94,150.00	$ 94,150.00	$ -	$ 93,000.00
	Executive Director and Technical Advisor ($7750/month) plus one additional month for transfer of technical advisor position							
B.	**Fringe Benefits**		**$ -**	$ -	$ -	$ -	$ -	$ -
	Staff are contractors							
C.	**Travel**		**$ 7,300.00**					
	Out of State National DOE-related trips	$ 6,100.00		$ 6,100.00	$ 6,100.00	$ 3,705.00	$ (2,395.00)	$ 5,281.74
	Local Travel $100/month for 12 months	$ 1,200.00		$ 1,000.00	$ 1,200.00	$ 1,505.00	$ 305.00	$ 1,409.88
D.	**Computer Equipment**		**$ 500.00**	$ -	$ 500.00	$ -	$ (500.00)	$ -
	Purchase misc. hardware, software							
E.	**Supplies**		**$ 1,200.00**	$ 100.00	$ 1,200.00	$ 353.00	$ (847.00)	$ 90.00
	Supplies ($100/month)							
F.	**Contractual**		**$ 39,500.00**					
	Attorney & Accounting Services							
	Legal Services ($1400/ month)	$ 16,800.00		$ 16,000.00	$ 16,800.00	$ 13,719.00	$ (3,081.00)	$ 14,819.15
	Accounting ($850/month)	$ 10,200.00		$ 5,800.00	$ 10,200.00	$ 4,674.00	$ (5,526.00)	$ 4,883.00
	Audit Report	$ 6,500.00		$ 4,200.00	$ 6,500.00	$ 4,000.00	$ (2,500.00)	$ 4,000.00
	Admin. Services							
	Misc. Services: bank fees, etc.	$ 1,000.00		$ 100.00	$ 1,000.00	$ 77.00	$ (923.00)	$ 79.82
	Minutes Preparation (5 meetings)	$ 3,000.00		$ 2,500.00	$ 3,000.00	$ 2,700.00	$ (300.00)	$ 2,762.50
	Local Government Expenses	$ 2,000.00		$ 1,500.00	$ 2,000.00	$ 2,300.00	$ 300.00	$ 1,533.44

Miscellaneous expenses not covered by DOE funds
(includes meeting expenses and non-LSO activities)

G.	**Construction**		**$ -**	$ -	$ -	$ -	$ -	$ -			
	None										
H.	**Other**		**$ 14,600.00**								
	Printing & Copy	$ 2,000.00		$ 250.00	$ 2,000.00	$ 90.00	$ (1,910.00)	$ 90.00			
	Postage $125/month for 12 months	$ 1,500.00		$ 300.00	$ 1,500.00	$ 530.00	$ (970.00)	$ 529.88			
	Liability Insurance										
	Property Contents/General Liability	$ 500.00		$ 500.00	$ 500.00	$ 500.00	$ -	$ 500.00			
	Board Members	$ 3,500.00		$ 3,500.00	$ 3,500.00	$ 2,968.00	$ (532.00)	$ 3,385.61			
	Telephone, email, etc.	$ 2,700.00		$ 2,400.00	$ 2,700.00	$ 1,890.00	$ (810.00)	$ 2,341.47			
	Website										
	Hosting	$ 500.00		$ -	$ 500.00	$ -	$ (500.00)	$ -			
	Web master	$ 1,500.00		$ 500.00	$ 1,500.00	$ 750.00	$ (750.00)	$ -			
	Subscriptions/Memberships										
	ECA membership	$ 950.00		$ 950.00	$ 950.00	$ 950.00	$ -	$ 950.00			
	Conference registration fees	$ 800.00		$ 800.00	$ 800.00	$ 750.00	$ (50.00)	$ 750.00			
	Newspapers	$ 650.00		$ -	$ 650.00	$ -	$ (650.00)	$ 525.70			
J.	**Indirect Costs**		**$ -**		$ -	$ -	$ -	$ -			
	N/A										
TOTAL PROPOSED BUDGET			**$ 156,100.00**	**$ 139,500.00**	**$ 157,250.00**	**$ 135,611.00**	**$ (21,639.00)**	**$ 136,932.19**			

REVENUE FOR 2020

Local government contributions	$ 10,000.00
Department of Energy grant	$ 139,000.00
RFCLOG carry-over	$ 7,100.00
TOTAL	$ 156,100.00

*2019 Actual/Projected Expenses = actual January through July; projected August through December

Appendix

- Meeting Protocols
- Acronym List

ROCKY FLATS STEWARDSHIP COUNCIL

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Rocky Flats Stewardship Council – Meeting Overview and Protocols

The central purpose of the meeting of the Rocky Flats Stewardship Council Board of Directors is for the Board and public to learn about current site activities and monitoring results, to be briefed on any issues or challenges DOE and the regulatory agencies are facing, and other issues that come before the Board. The Board reserves time at each meeting to address governance-related issues. Those issues are identified in the meeting agenda, and could include the budget, work plan, minutes, and related items.

All meetings of the Board of Directors are open to the public. From time to time, and in accordance with § 24-6-402(4), Colorado Revised Statutes, the Board may go into executive session. Public notice of the executive session is provided in the meeting agenda.

Public Engagement Protocols: Time is allotted at each meeting for the public to address the Board of Directors and presenters. The following procedures apply to all meetings of the Board of Directors. The Chair reserves the right to modify these procedures.

1. Public comment periods: The public comment periods are identified on the meeting agenda. The goal is to have two public comment periods—one near the start of the meeting and another near the end. The public comment periods are not a Q&A with the Board.
2. Time limit: The Board requests that comments be to the point. If individual comments are too long and/or if there are a number of people who wish to speak, the Chair reserves the right to enact a time limit.
3. Additional public comment: As time allows, and as called on by the Chair, the public is allowed to ask questions or express an opinion during presentations. The Board will have the first opportunity to ask questions or make comments.

No personal attacks: All people speaking at the meeting must refrain from personal attacks and address the issues at hand.

Public Comment on Stewardship Council Website: The Stewardship Council website includes a section for public comment. To have your comment posted, you must email a copy of your comments to David Abelson (dabelson@rockyflatssc.org).

Noise: In order to help reduce background noise, sidebar and backroom conversations should be taken into the hall.

To be added to the Stewardship Council's email distribution list, please email David Abelson (dabelson@rockyflatssc.org).

Rocky Flats Acronym List
Prepared for the Rocky Flats Stewardship Council
Rev. 05/19

Acronym or Term	Means	Definition
Alpha radiation		A type of radiation that is not very penetrating and can be blocked by materials such as human skin or paper or one inch of air. Alpha radiation presents its greatest risk when it is inhaled or ingested. Plutonium, the radioactive material of greatest concern at Rocky Flats, produces this type of radiation.
Am	americium	A man-made radioactive element that is a byproduct of plutonium (Pu) production. Am emits gamma radiation, which can penetrate many types of protective shielding. During the production era at Rocky Flats, Am was chemically separated from Pu to reduce personnel exposures.
AME	Actinide Migration Evaluation	An exhaustive, years-long study by independent researchers who studied how actinides such as plutonium, americium, and uranium move through the soil and water at Rocky Flats.
AMP	Adaptive Management Plan	Additional water quality sampling and analysis that DOE is conducting, beyond the normal environmental assessments, to inform decisions regarding future breaches of remaining dams.
AOC well	Area of Concern well	A particular type of groundwater well.
B	boron	An inorganic compound that has been found in some surface water and groundwater samples at Rocky Flats.
Be	beryllium	A very strong and lightweight metal that was used at Rocky Flats in the manufacture of nuclear weapons. Exposure to beryllium is now known to cause respiratory disease in those persons sensitive to it.
Beta radiation		A type of radiation that is more penetrating than alpha (but less penetrating than gamma). Beta particles can be stopped after traveling through 10 feet of air or a thin layer of glass or metal. Some forms of uranium emit beta radiation.
BMP	Best Management Practices	A term used to describe actions taken by DOE that are not required by regulation but warrant action.
BZ	Buffer Zone	The portion of the Rocky Flats site that was added during production to provide a "buffer" between the neighboring communities and the industrial portion of Rocky Flats. The buffer zone covered approximately 6,100 acres. Most of the buffer zone lands now make up the Rocky Flats National Wildlife Refuge.
CAD/ROD	Corrective Action Decision/Record of Decision	The complete final plan for cleanup and closure for Rocky Flats. The Federal/State laws that governed the cleanup at Rocky Flats required a document of this sort.
CCP	Comprehensive Conservation Plan	The refuge plan adopted by the U.S. Fish and Wildlife Service in 2007.
CDPHE	Colorado Department of Public Health and Environment	The state agency that regulates Rocky Flats.

Acronym or Term	Means	Definition
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act	Federal legislation that governs the Rocky Flats cleanup. Also known as the Superfund Act.
cfs	cubic feet per second	A volumetric measure of water flow.
COC	Contaminant of Concern	A hazardous or radioactive substance that is present at Rocky Flats.
COU	Central Operable Unit	A CERCLA term used to describe the DOE-retained lands (about 1,300 acres) at Rocky Flats. The COU overlays the former Industrial Area (where manufacturing activities took place) and contains all engineered elements of the remedy (two landfills and four groundwater treatment systems) and areas of residual subsurface contamination.
CR	Contact Record	A regulatory procedure where CDPHE reviews a proposed action by DOE and either approves the proposal as is or requires changes to the proposal before approval. CRs apply to a wide range of activities performed by DOE. After approval, the CR is posted on the DOE-Legacy Management (LM) website and the public is notified via email.
Cr	chromium	Potentially toxic metal used at Rocky Flats.
CRA	Comprehensive Risk Assessment	A series of analyses that assess human health risks and risks to the environment (flora and fauna).
D&D	decontamination and decommissioning	The process of cleaning up and tearing down buildings and other structures.
DG	Discharge Gallery	The location where the treated effluent of the Solar Ponds Plume Treatment System (defined below) empties into North Walnut Creek.
DOE	U.S. Department of Energy	The federal agency that manages portions of Rocky Flats. The site office is the Office of Legacy Management (LM).
EA	Environmental Assessment	A study required by NEPA (defined below) when a federal agency proposes an action that could impact the environment. The agency is responsible for conducting the analysis to determine what, if any, impacts to the environment might occur due to a proposed action.
EIS	Environmental Impact Statement	An evaluation that is undertaken by a government agency when it is determined, via the EA, that a proposed action by the agency may have significant impacts to the environment.
EPA	U.S. Environmental Protection Agency	The federal agency that regulates Rocky Flats activities.
EEOICPA	Energy Employees Occupational Illness Compensation Program Act	An act passed by Congress in 2000 to compensate sick nuclear weapons workers and certain survivors.

Acronym or Term	Means	Definition
ETPTS	East Trenches Plume Treatment System	The treatment system near the location of the East Waste Disposal Trenches. This system treats groundwater emanating from the trenches that is contaminated with organic solvents. Treated effluent flows into South Walnut Creek.
FC	functional channel	Man-made stream channels constructed during cleanup to help direct water flow.
FACA	Federal Advisory Committee Act	The federal law that regulates federal advisory boards. The law requires balanced membership and open meetings with published Federal Register meeting dates.
Gamma Radiation		The most penetrating type of radiation at Rocky Flats. Thick, dense shielding is necessary to protect against gamma rays. Americium (Am) is a strong gamma emitter.
GAO	Government Accountability Office	Congressional investigative office that reports to Congress.
g	gram	A metric unit of mass.
gpm	gallons per minute	A volumetric measure of water flow.
GWIS	Groundwater Intercept System	A below-ground system that directs contaminated groundwater toward the Solar Ponds Plume and East Trenches Plume Treatment Systems.
IA	Industrial Area	The central core of Rocky Flats where all manufacturing activities took place. The IA covered 385 of Rocky Flats's 6,500 acres.
IC	Institutional Control	Administrative and legal controls employed to protect the integrity of the remedies in place and minimize the potential for human exposure to residual contamination.
IGA	intergovernmental agreement	A cooperative agreement between local governments that establishes the framework of the Stewardship Council.
IHSS	Individual Hazardous Substance Site	A name given during cleanup to a discrete area of known or suspected contamination. There were formerly over two hundred IHSSs at Rocky Flats.
ITPH	interceptor trench pump house	The location where contaminated groundwater collected by the interceptor trench is pumped to either the Solar Ponds Plume Treatment System or the East Trenches Plume Treatment System.
L	liter	Metric measure of volume (slightly larger than a quart).
LANL	Los Alamos National Laboratory	One of the US government's premier research institutions located near Santa Fe, NM. LANL is continuing to conduct highly specialized water analysis for Rocky Flats. Using sophisticated techniques, LANL is able to determine the percentages of both naturally occurring and man-made uranium, which helps to inform water quality decisions.
LHSU	lower hydrostratigraphic unit	Hydrogeological term for deep unweathered bedrock that is hydraulically isolated from the upper hydrostratigraphic unit (see UHSU). Data show that site COCs have not contaminated the LHSU.
LM	Legacy Management	DOE office responsible for overseeing activities at closed sites.

Acronym or Term	Means	Definition
LMPIP	Legacy Management Public Involvement Plan	A plan that follows DOE and EPA guidance on public participation and outlines the methods of public involvement and communication used to inform the public of site conditions and activities. It was previously known as the Post-Closure Public Involvement Plan (PCPIP).
O&M/OM&M	Operations, monitoring, and maintenance	Term that describes ongoing activities at Rocky Flats.
MOU	Memorandum of Understanding	The formal agreement between EPA and CDPHE specifying that CDPHE is the lead post-closure regulatory agency with EPA providing assistance when needed.
MSPTS	Mound Site Plume Treatment System	The remediation system in place that is designed to treat groundwater contaminated with organic solvents emanating from the Mound Site (a portion of Rocky Flats where waste barrels were buried). Treated effluent flows into South Walnut Creek.
NEPA	National Environmental Policy Act	Federal legislation that requires the federal government to perform analyses of environmental consequences of major projects or activities.
nitrates		Contaminant of concern originating from Solar Ponds wastes. Nitrates have been detected in the North Walnut Creek drainage. Nitrates are very soluble in water and move readily through the aquatic environment.
Np	neptunium	A man-made radioactive isotope that is a by-product of nuclear reactors and plutonium production.
NPL	National Priorities List	A list of Superfund sites. The refuge lands were de-listed from the NPL, while the DOE-retained lands are still on the NPL because of residual groundwater contamination and associated remediation activities.
NWCS	North Walnut Creek Slump	Slumping observed on the hillside east of the Solar Ponds Plume Treatment System.
OLF	Original Landfill	Hillside dumping area of about 20 acres that was used from 1951 to 1968. The OLF underwent remediation with the addition of a soil cap and groundwater monitoring locations.
OU	Operable Unit	A distinct area within a cleanup site. These areas may address geographic areas, specific problems, or medium (e.g., groundwater, soil) where a specific action is required.
PCE	perchloroethylene (a.k.a. tetrachloroethylene)	A volatile organic solvent used in past operations at Rocky Flats.
pCi/g	picocuries per gram	A unit of radioactivity in soil.
pCi/L	picocuries per liter	A unit of radioactivity in water. CDPHE's regulatory limit for Pu and Am in surface water at Rocky Flats is 0.15 pCi/L. This standard is 100 times stricter than the EPA's drinking water standard.
PLF	Present Landfill	Landfill constructed in 1968 to replace the OLF. During site remediation, the PLF was closed under RCRA regulations with an extensive cap and monitoring system.

Acronym or Term	Means	Definition
PMJM	Preble's Meadow Jumping Mouse	A species of mouse found along the Front Range that is on the endangered species list. There are several areas in the Refuge and COU that provide adequate habitat for the mouse, usually found in drainages. Any operations that are planned in potential mouse habitat are strictly controlled.
POC	Point of Compliance (surface water)	A surface water monitoring location at Rocky Flats where contaminant concentrations must be in compliance with federal and state standards for hazardous constituents. Violations of water quality standards at the points of compliance could result in DOE receiving financial penalties.
POE	Point of Evaluation (surface water)	A surface water monitoring location at Rocky Flats where water quality is monitored. There are no financial penalties associated with water quality exceedances at these locations, but DOE may be required to develop a plan of action to improve the water quality.
POU	Peripheral Operable Unit	A CERCLA term used to describe the 4,800-acre area surrounding the Central Operable Unit.
Pu	plutonium	A metallic substance that was fabricated to form the core, or "trigger", of a nuclear weapon. Formation of these triggers was the primary production mission of the Rocky Flats site. There are different forms of plutonium, called isotopes. Each isotope is known by a different number, such as plutonium 239 (Pu-239) and plutonium 241 (Pu-241). Pu-239 is the primary radioactive COC at Rocky Flats.
RCRA	Resource Conservation and Recovery Act	Federal law regulating hazardous waste. In Colorado, EPA delegates to CDPHE the authority to regulate hazardous wastes.
RFCA	Rocky Flats Cleanup Agreement	The regulatory agreement that governed cleanup activities. DOE, EPA, and CDPHE were signatories.
RFCAB	Rocky Flats Citizen Advisory Board	The group formed as part of DOE's site-specific advisory board network. The RFCAB provided community feedback to DOE on a wide variety of Rocky Flats issues from 1993 through regulatory closure in 2006.
RFCLOG	Rocky Flats Coalition of Local Governments	The predecessor organization of the Rocky Flats Stewardship Council.
RFETS	Rocky Flats Environmental Technology Site	The moniker for Rocky Flats during cleanup years.
RFLMA	Rocky Flats Legacy Management Agreement	The post-cleanup regulatory agreement between DOE, CDPHE, and EPA that governs site activities. The CDPHE has the lead regulatory role, with support from EPA as required.
RFNWR	Rocky Flats National Wildlife Refuge	The 4,000 acres of Rocky Flats where unrestricted use is allowed. This land is now a wildlife refuge.
RFSOG	Rocky Flats Site Operations Guide	The nuts-and-bolt guide for post-closure site activities performed by DOE and its contractors.

Acronym or Term	Means	Definition
RSAL	Radionuclide Soil Action Level	Concentration of radionuclide in soil above which remedial action should be considered so that people are not exposure to radiation doses above permitted levels.
SEP	Solar Evaporation Ponds	An area of Rocky Flats used in the 1950s to hold excess wastewater generated during manufacturing operations. Wastewater that could not be treated in the onsite treatment plant was sent to open-air holding ponds where solar energy was utilized to evaporate and concentrate the waste. The original SEPs were unlined, and substantial quantities of uranium and nitrates made their way into groundwater. As a result, the Solar Ponds Plume Treatment System was constructed to treat contaminated groundwater before it emerged as surface water in North Walnut Creek.
SID	South Interceptor Ditch	A water feature designed to intercept runoff from the southern portion of the COU. The SID flows from west to east into Pond C-2. Woman Creek water does not enter Pond C-2, but is diverted around Pond C-2 through the Woman Creek Diversion Canal.
SPPTS	Solar Ponds Plume Treatment System	Engineered system designed to treat groundwater contaminated with uranium and nitrates. The nitrates originate from the former solar evaporation ponds, which had high levels of nitric acid. The uranium is primarily naturally occurring. Effluent from the SPPTS flows into North Walnut Creek.
SVOCs	semi-volatile organic compounds	Organic compounds that are not as volatile as solvent-related VOCs. SVOCs are found in many environmental media at Rocky Flats. They are found in materials like oil, coal, asphalt, and tar.
TCE	trichloroethylene	A volatile organic compound used as a solvent in past site operations. TCE is also a degradation product of PCE.
U	uranium	Naturally occurring radioactive element. There were two primary isotopes of U used during production activities. The first was enriched U, which contained a very high percentage (>90%) of U-235 and was used in nuclear weapons. The second isotope was U-238, also known as depleted uranium. U-238 has low levels of radioactivity.
ug/L or µg/L	micrograms per liter	A unit of contaminant concentration in water.
UHSU	upper hydrostratigraphic unit	A hydrogeological term describing the surficial materials and weathered bedrock found at Rocky Flats. The UHSU is hydraulically isolated from the lower hydrostratigraphic unit (see LHSU). Groundwater in some UHSU areas of Rocky Flats is contaminated with site-related COCs, while groundwater in other UHSU areas is not impacted. All groundwater in the UHSU emerges to surface water before it leaves Rocky Flats.
USFWS	United States Fish & Wildlife Service	The agency within the US Department of the Interior that is responsible for maintaining the nation-wide system of wildlife refuges, among other duties. The regional office is responsible for the RFNWR.

Acronym or Term	Means	Definition
VOC	volatile organic compound	These compounds include cleaning solvents that were used in the manufacturing operations at Rocky Flats. The VOCs used at Rocky Flats include carbon tetrachloride (often called carbon tet), trichloroethene (TCE), perchloroethylene (PCE), and methylene chloride.
WCRA (or "the Authority")	Woman Creek Reservoir Authority	The group composed the cities of Westminster, Northglenn, and Thornton. These cities use Standley Lake as part of their drinking water supply network. Surface water from Rocky Flats formerly flowed through Woman Creek to Standley Lake, but the Woman Creek Reservoir was constructed to sever that connection. The Authority has an operations agreement with DOE to manage the Woman Creek Reservoir.
WQCC	Water Quality Control Commission	State board within CDPHE tasked with overseeing water quality issues throughout the state. DOE has petitioned the WQCC several times in the last few years regarding water quality issues.
WRW	Wildlife Refuge Worker	User scenario on which exposure risks are calculated.
ZVI	zero valent iron	A type of fine iron particles formerly used to treat VOCs in the ETPTS and MSPTS.