



Advanced Environmental Laboratories, Inc
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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

June 05, 2024

Neil Wicker
Athena Technologies, Inc.
3700 Rosewood Drive
Columbia, SC 29205

RE: Workorder: J2407489 Phillippi Creek Dredging Study

Dear Neil Wicker:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday May 22, 2024. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Jerry Allen, Client Services Manager
JAllen@aellab.com

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Workorder: Phillippi Creek Dredging Study (J2407489)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
J2407489001	PC-24-7	SO	EPA 8081	05/21/2024 08:44	05/22/2024 10:21	19	Dry
J2407489001	PC-24-7	SO	FL-PRO	05/21/2024 08:44	05/22/2024 10:21	1	Dry
J2407489001	PC-24-7	SO	SM 2540G	05/21/2024 08:44	05/22/2024 10:21	1	Dry
J2407489001	PC-24-7	SO	SW-846 6010	05/21/2024 08:44	05/22/2024 10:21	11	Dry
J2407489001	PC-24-7	SO	SW-846 7471A	05/21/2024 08:44	05/22/2024 10:21	1	Dry
J2407489001	PC-24-7	SO	SW-846 8082A	05/21/2024 08:44	05/22/2024 10:21	7	Dry
J2407489001	PC-24-7	SO	SW-846 8270C (SIM)	05/21/2024 08:44	05/22/2024 10:21	18	Dry
J2407489002	PC-24-8	SO	EPA 8081	05/21/2024 09:17	05/22/2024 10:21	19	Dry
J2407489002	PC-24-8	SO	FL-PRO	05/21/2024 09:17	05/22/2024 10:21	1	Dry
J2407489002	PC-24-8	SO	SM 2540G	05/21/2024 09:17	05/22/2024 10:21	1	Dry
J2407489002	PC-24-8	SO	SW-846 6010	05/21/2024 09:17	05/22/2024 10:21	11	Dry
J2407489002	PC-24-8	SO	SW-846 7471A	05/21/2024 09:17	05/22/2024 10:21	1	Dry
J2407489002	PC-24-8	SO	SW-846 8082A	05/21/2024 09:17	05/22/2024 10:21	7	Dry
J2407489002	PC-24-8	SO	SW-846 8270C (SIM)	05/21/2024 09:17	05/22/2024 10:21	18	Dry
J2407489003	PC-24-6	SO	EPA 8081	05/21/2024 09:34	05/22/2024 10:21	19	Dry
J2407489003	PC-24-6	SO	FL-PRO	05/21/2024 09:34	05/22/2024 10:21	1	Dry
J2407489003	PC-24-6	SO	SM 2540G	05/21/2024 09:34	05/22/2024 10:21	1	Dry
J2407489003	PC-24-6	SO	SW-846 6010	05/21/2024 09:34	05/22/2024 10:21	11	Dry
J2407489003	PC-24-6	SO	SW-846 7471A	05/21/2024 09:34	05/22/2024 10:21	1	Dry
J2407489003	PC-24-6	SO	SW-846 8082A	05/21/2024 09:34	05/22/2024 10:21	7	Dry
J2407489003	PC-24-6	SO	SW-846 8270C (SIM)	05/21/2024 09:34	05/22/2024 10:21	18	Dry
J2407489004	PC-24-5	SO	EPA 8081	05/21/2024 09:55	05/22/2024 10:21	19	Dry
J2407489004	PC-24-5	SO	FL-PRO	05/21/2024 09:55	05/22/2024 10:21	1	Dry
J2407489004	PC-24-5	SO	SM 2540G	05/21/2024 09:55	05/22/2024 10:21	1	Dry
J2407489004	PC-24-5	SO	SW-846 6010	05/21/2024 09:55	05/22/2024 10:21	11	Dry
J2407489004	PC-24-5	SO	SW-846 7471A	05/21/2024 09:55	05/22/2024 10:21	1	Dry
J2407489004	PC-24-5	SO	SW-846 8082A	05/21/2024 09:55	05/22/2024 10:21	7	Dry
J2407489004	PC-24-5	SO	SW-846 8270C (SIM)	05/21/2024 09:55	05/22/2024 10:21	18	Dry
J2407489005	PC-24-4	SO	EPA 8081	05/21/2024 10:29	05/22/2024 10:21	19	Dry
J2407489005	PC-24-4	SO	FL-PRO	05/21/2024 10:29	05/22/2024 10:21	1	Dry
J2407489005	PC-24-4	SO	SM 2540G	05/21/2024 10:29	05/22/2024 10:21	1	Dry
J2407489005	PC-24-4	SO	SW-846 6010	05/21/2024 10:29	05/22/2024 10:21	11	Dry
J2407489005	PC-24-4	SO	SW-846 7471A	05/21/2024 10:29	05/22/2024 10:21	1	Dry
J2407489005	PC-24-4	SO	SW-846 8082A	05/21/2024 10:29	05/22/2024 10:21	7	Dry
J2407489005	PC-24-4	SO	SW-846 8270C (SIM)	05/21/2024 10:29	05/22/2024 10:21	18	Dry

Wednesday, June 5, 2024 9:59:42 AM
Dates and times are displayed using (-04:00)
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Workorder: Phillippi Creek Dredging Study (J2407489)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
J2407489006	PC-24-3	SO	EPA 8081	05/21/2024 10:48	05/22/2024 10:21	19	Dry
J2407489006	PC-24-3	SO	FL-PRO	05/21/2024 10:48	05/22/2024 10:21	1	Dry
J2407489006	PC-24-3	SO	SM 2540G	05/21/2024 10:48	05/22/2024 10:21	1	Dry
J2407489006	PC-24-3	SO	SW-846 6010	05/21/2024 10:48	05/22/2024 10:21	11	Dry
J2407489006	PC-24-3	SO	SW-846 7471A	05/21/2024 10:48	05/22/2024 10:21	1	Dry
J2407489006	PC-24-3	SO	SW-846 8082A	05/21/2024 10:48	05/22/2024 10:21	7	Dry
J2407489006	PC-24-3	SO	SW-846 8270C (SIM)	05/21/2024 10:48	05/22/2024 10:21	18	Dry
J2407489007	PC-24-2	SO	EPA 8081	05/21/2024 11:10	05/22/2024 10:21	19	Dry
J2407489007	PC-24-2	SO	FL-PRO	05/21/2024 11:10	05/22/2024 10:21	1	Dry
J2407489007	PC-24-2	SO	SM 2540G	05/21/2024 11:10	05/22/2024 10:21	1	Dry
J2407489007	PC-24-2	SO	SW-846 6010	05/21/2024 11:10	05/22/2024 10:21	11	Dry
J2407489007	PC-24-2	SO	SW-846 7471A	05/21/2024 11:10	05/22/2024 10:21	1	Dry
J2407489007	PC-24-2	SO	SW-846 8082A	05/21/2024 11:10	05/22/2024 10:21	7	Dry
J2407489007	PC-24-2	SO	SW-846 8270C (SIM)	05/21/2024 11:10	05/22/2024 10:21	18	Dry
J2407489008	PC-24-1	SO	EPA 8081	05/21/2024 11:35	05/22/2024 10:21	19	Dry
J2407489008	PC-24-1	SO	FL-PRO	05/21/2024 11:35	05/22/2024 10:21	1	Dry
J2407489008	PC-24-1	SO	SM 2540G	05/21/2024 11:35	05/22/2024 10:21	1	Dry
J2407489008	PC-24-1	SO	SW-846 6010	05/21/2024 11:35	05/22/2024 10:21	11	Dry
J2407489008	PC-24-1	SO	SW-846 7471A	05/21/2024 11:35	05/22/2024 10:21	1	Dry
J2407489008	PC-24-1	SO	SW-846 8082A	05/21/2024 11:35	05/22/2024 10:21	7	Dry
J2407489008	PC-24-1	SO	SW-846 8270C (SIM)	05/21/2024 11:35	05/22/2024 10:21	18	Dry

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Workorder: Phillippi Creek Dredging Study (J2407489)

Workorder Summary

Batch Comments

CVAj/2440 - HG Analysis,CVAA,Non-Aqueous

The Method Blank associated with batch 2440 contained a low level concentration of mercury above the Method Reporting Limit (MDL). The associated sample(s) contained this/these compound(s) at a concentration of at least ten times that found in the Method Blank. Blank contamination less than ten times that found in the associated samples is deemed insignificant and the data is reported with no further corrective action required.

GCSj/6434 - 8081/8082/608 Analysis,Soil

The upper control criterion was exceeded for several target analytes in Continuing Calibration Verification (CCV) standards for analytical batch GCSj: 6434, indicating increased sensitivity. The client samples reported in this batch did not contain the analytes in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. Client samples with target analytes above the Method Detection Limit (MDL) were re-analyzed and reported with passing Continuing Calibration Verification (CCV) standards. No further corrective action was required.

Task Comments

J2407489001 (PC-24-7) - GCSj/6450 - 8081/8082/608 Analysis,Soil

The sample J2407489001 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

J2407489001 (PC-24-7) - GCSj/6434 - 8081/8082/608 Analysis,Soil

The sample J2407489001 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

J2407489002 (PC-24-8) - GCSj/6450 - 8081/8082/608 Analysis,Soil

The sample J2407489002 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

J2407489002 (PC-24-8) - GCSj/6434 - 8081/8082/608 Analysis,Soil

The sample J2407489002 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

J2407489003 (PC-24-6) - GCSj/6450 - 8081/8082/608 Analysis,Soil

The sample J2407489003 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

J2407489003 (PC-24-6) - GCSj/6434 - 8081/8082/608 Analysis,Soil

The sample J2407489003 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

J2407489004 (PC-24-5) - GCSj/6450 - 8081/8082/608 Analysis,Soil

The sample J2407489004 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

J2407489004 (PC-24-5) - GCSj/6434 - 8081/8082/608 Analysis,Soil

The sample J2407489004 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

J2407489005 (PC-24-4) - GCSj/6450 - 8081/8082/608 Analysis,Soil

The sample J2407489005 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

J2407489005 (PC-24-4) - GCSj/6434 - 8081/8082/608 Analysis,Soil

The sample J2407489005 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

J2407489006 (PC-24-3) - GCSj/6450 - 8081/8082/608 Analysis,Soil

The sample J2407489006 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

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Workorder: Phillippi Creek Dredging Study (J2407489)

Workorder Summary

Task Comments

J2407489006 (PC-24-3) - GCSj/6434 - 8081/8082/608 Analysis, Soil

The sample J2407489006 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

J2407489007 (PC-24-2) - GCSj/6450 - 8081/8082/608 Analysis, Soil

The sample J2407489007 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

J2407489007 (PC-24-2) - GCSj/6434 - 8081/8082/608 Analysis, Soil

The sample J2407489007 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

J2407489008 (PC-24-1) - GCSj/6450 - 8081/8082/608 Analysis, Soil

The sample J2407489008 and associated matrix spike and matrix spike duplicate was diluted prior to instrumental analysis. The extracts were highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

J2407489008 (PC-24-1) - GCSj/6434 - 8081/8082/608 Analysis, Soil

The sample J2407489008 was diluted prior to instrumental analysis. The extract was highly colored and viscous which indicated the need to perform a dilution prior to injection into the instrument.

Analysis Results Comments

J2407489001 (PC-24-7) - Aluminum

The control criteria for matrix spike recoveries of Aluminum for J2407489001 are not applicable. The analyte concentration in the sample was greater than 4 times the added spike concentrations, preventing accurate evaluation of the spike recovery. No further corrective action was required.

J2407489001 (PC-24-7) - Chromium

The matrix spike recoveries of Aluminum, Chromium, and Cadmium for J2407489001 were outside control criteria due to the presence of target analytes in the sample. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The affected sample is qualified to indicate matrix interference.

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Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results Qualifiers

Parameter Qualifiers

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- V Method Blank Contamination

Lab Qualifiers

- J DOH Certification #E82574 (FL NELAC) AEL-Jacksonville
DOD-ELAP Certification #L23-514 (ISO/IEC 17025:2017) AEL-Jacksonville

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Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID:	J2407489001	Date Collected:				05/21/2024 08:44		Matrix:	Soil
Sample ID:	PC-24-7	Date Received:				05/22/2024 10:21			
Parameter	Results	Units	PQL	MDL	DF	Prepared		Analyzed	Lab
METALS (SW-846 3050B/SW-846 6010)									
Aluminum	16000	mg/Kg	1400	360	10	05/24/2024 11:23		06/03/2024 15:08	J
Arsenic	2.0 I	mg/Kg	7.2	1.8	1	05/24/2024 11:23		05/28/2024 16:43	J
Barium	45	mg/Kg	7.2	1.8	1	05/24/2024 11:23		05/28/2024 16:43	J
Cadmium	0.72	mg/Kg	0.72	0.18	1	05/24/2024 11:23		05/28/2024 16:43	J
Chromium	41	mg/Kg	2.9	0.72	1	05/24/2024 11:23		05/28/2024 16:43	J
Copper	81	mg/Kg	7.2	1.8	1	05/24/2024 11:23		05/28/2024 16:43	J
Lead	33	mg/Kg	7.2	1.8	1	05/24/2024 11:23		05/28/2024 16:43	J
Nickel	10	mg/Kg	7.2	1.8	1	05/24/2024 11:23		05/28/2024 16:43	J
Selenium	3.6 U	mg/Kg	14	3.6	1	05/24/2024 11:23		05/28/2024 16:43	J
Silver	0.72 U	mg/Kg	2.9	0.72	1	05/24/2024 11:23		05/28/2024 16:43	J
Zinc	200	mg/Kg	140	36	1	05/24/2024 11:23		05/28/2024 16:43	J
METALS (SW-846 7471A)									
Mercury	0.19	mg/Kg	0.019	0.0048	1	05/28/2024 11:51		05/28/2024 17:52	J
SEMIVOLATILES (EPA 3546/SW-846 8082A)									
Aroclor 1016 (PCB-1016)	0.84 U	mg/Kg	3.4	0.84	10	05/28/2024 09:00		05/31/2024 10:48	J
Aroclor 1221 (PCB-1221)	0.84 U	mg/Kg	3.4	0.84	10	05/28/2024 09:00		05/31/2024 10:48	J
Aroclor 1232 (PCB-1232)	0.84 U	mg/Kg	3.4	0.84	10	05/28/2024 09:00		05/31/2024 10:48	J
Aroclor 1242 (PCB-1242)	0.84 U	mg/Kg	3.4	0.84	10	05/28/2024 09:00		05/31/2024 10:48	J
Aroclor 1248 (PCB-1248)	0.84 U	mg/Kg	3.4	0.84	10	05/28/2024 09:00		05/31/2024 10:48	J
Aroclor 1254 (PCB-1254)	0.84 U	mg/Kg	3.4	0.84	10	05/28/2024 09:00		05/31/2024 10:48	J
Aroclor 1260 (PCB-1260)	0.84 U	mg/Kg	3.4	0.84	10	05/28/2024 09:00		05/31/2024 10:48	J
SEMIVOLATILES (FL-PRO)									
TPH	35 U	mg/Kg	61	35	1	05/24/2024 10:00		05/29/2024 17:07	J
SEMIVOLATILES (SW-846 3550B/EPA 8081)									
4,4' -DDD	0.018 U	mg/Kg	0.11	0.018	10	05/28/2024 09:00		05/31/2024 22:09	J
4,4' -DDE	0.014 U	mg/Kg	0.11	0.014	10	05/28/2024 09:00		05/31/2024 22:09	J
4,4' -DDT	0.031 U	mg/Kg	0.11	0.031	10	05/28/2024 09:00		05/31/2024 22:09	J





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Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID:	J2407489001	Date Collected:	05/21/2024 08:44			Matrix:	Soil	
Sample ID:	PC-24-7	Date Received:	05/22/2024 10:21					
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Aldrin	0.017 U	mg/Kg	0.11	0.017	10	05/28/2024 09:00	05/31/2024 22:09	J
Chlordane (technical)	0.45 U	mg/Kg	1.1	0.45	10	05/28/2024 09:00	05/31/2024 22:09	J
Dieldrin	0.014 U	mg/Kg	0.11	0.014	10	05/28/2024 09:00	05/31/2024 22:09	J
Endosulfan I	0.017 U	mg/Kg	0.11	0.017	10	05/28/2024 09:00	05/31/2024 22:09	J
Endosulfan II	0.012 U	mg/Kg	0.11	0.012	10	05/28/2024 09:00	05/31/2024 22:09	J
Endosulfan Sulfate	0.020 U	mg/Kg	0.11	0.020	10	05/28/2024 09:00	05/31/2024 22:09	J
Endrin	0.031 U	mg/Kg	0.11	0.031	10	05/28/2024 09:00	05/31/2024 22:09	J
Endrin Aldehyde	0.018 U	mg/Kg	0.11	0.018	10	05/28/2024 09:00	05/31/2024 22:09	J
Heptachlor	0.021 U	mg/Kg	0.11	0.021	10	05/28/2024 09:00	05/31/2024 22:09	J
Heptachlor Epoxide	0.015 U	mg/Kg	0.11	0.015	10	05/28/2024 09:00	05/31/2024 22:09	J
Methoxychlor	0.023 U	mg/Kg	0.11	0.023	10	05/28/2024 09:00	05/31/2024 22:09	J
Toxaphene	0.79 U	mg/Kg	1.1	0.79	10	05/28/2024 09:00	05/31/2024 22:09	J
alpha-BHC	0.019 U	mg/Kg	0.11	0.019	10	05/28/2024 09:00	05/31/2024 22:09	J
beta-BHC	0.013 U	mg/Kg	0.11	0.013	10	05/28/2024 09:00	05/31/2024 22:09	J
delta-BHC	0.013 U	mg/Kg	0.11	0.013	10	05/28/2024 09:00	05/31/2024 22:09	J
gamma-BHC (Lindane)	0.020 U	mg/Kg	0.11	0.020	10	05/28/2024 09:00	05/31/2024 22:09	J
SEMIVOLATILES (SW-846 3550B/SW-846 8270C (SIM))								
1-Methylnaphthalene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
2-Methylnaphthalene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Acenaphthene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Acenaphthylene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Anthracene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Benzo[a]anthracene	0.031	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Benzo[a]pyrene	0.053	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Benzo[b]fluoranthene	0.090	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Benzo[g,h,i]perylene	0.059	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Benzo[k]fluoranthene	0.034	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J





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Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID: J2407489001	Date Collected: 05/21/2024 08:44	Matrix: Soil
Sample ID: PC-24-7	Date Received: 05/22/2024 10:21	

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Chrysene	0.053	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Dibenzo[a,h]anthracene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Fluoranthene	0.074	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Fluorene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Indeno(1,2,3-cd)pyrene	0.054	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Naphthalene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Phenanthrene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
Pyrene	0.060	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 00:58	J
(SM 2540G)								
Percent Moisture	72	%	0.0010	0.0010	1	05/28/2024 15:44	05/28/2024 15:44	J

Analysis Results Comments

Mercury

V|Method Blank Contamination

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
2-Fluorobiphenyl (S)	mg/Kg	0.40	0.20	49	37 - 127	J
Nitrobenzene-d5 (S)	mg/Kg	0.40	0.17	43	33 - 134	J
p-Terphenyl-d14 (S)	mg/Kg	0.40	0.29	73	42 - 141	J
Nonatricontane-C39 (S)	mg/Kg	6	3.30	55	36 - 132	J
o-Terphenyl (S)	mg/Kg	2	1.30	66	66 - 136	J
Decachlorobiphenyl (S)	ug/Kg	78	66	85	63 - 130	J
Tetrachloro-m-xylene (S)	ug/Kg	160	120	80	42 - 129	J





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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Decachlorobiphenyl (S)	ug/Kg	78	82	106	61 - 147	J
Tetrachloro-m-xylene (S)	ug/Kg	160	120	76	44 - 130	J

Certificate of Analysis

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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID:	J2407489002	Date Collected:	05/21/2024 09:17			Matrix:	Soil	
Sample ID:	PC-24-8	Date Received:	05/22/2024 10:21					
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3050B/SW-846 6010)								
Aluminum	4000	mg/Kg	920	230	10	05/24/2024 11:23	06/03/2024 15:18	J
Arsenic	1.6 I	mg/Kg	4.6	1.1	1	05/24/2024 11:23	05/28/2024 16:53	J
Barium	12	mg/Kg	4.6	1.1	1	05/24/2024 11:23	05/28/2024 16:53	J
Cadmium	0.15 I	mg/Kg	0.46	0.11	1	05/24/2024 11:23	05/28/2024 16:53	J
Chromium	12	mg/Kg	1.8	0.46	1	05/24/2024 11:23	05/28/2024 16:53	J
Copper	23	mg/Kg	4.6	1.1	1	05/24/2024 11:23	05/28/2024 16:53	J
Lead	9.7	mg/Kg	4.6	1.1	1	05/24/2024 11:23	05/28/2024 16:53	J
Nickel	3.3 I	mg/Kg	4.6	1.1	1	05/24/2024 11:23	05/28/2024 16:53	J
Selenium	2.3 U	mg/Kg	9.2	2.3	1	05/24/2024 11:23	05/28/2024 16:53	J
Silver	0.46 U	mg/Kg	1.8	0.46	1	05/24/2024 11:23	05/28/2024 16:53	J
Zinc	65 I	mg/Kg	92	23	1	05/24/2024 11:23	05/28/2024 16:53	J
METALS (SW-846 7471A)								
Mercury	0.054	mg/Kg	0.011	0.0029	1	05/30/2024 11:41	05/30/2024 14:16	J
SEMIVOLATILES (EPA 3546/SW-846 8082A)								
Aroclor 1016 (PCB-1016)	0.52 U	mg/Kg	2.1	0.52	10	05/28/2024 09:00	05/31/2024 11:09	J
Aroclor 1221 (PCB-1221)	0.52 U	mg/Kg	2.1	0.52	10	05/28/2024 09:00	05/31/2024 11:09	J
Aroclor 1232 (PCB-1232)	0.52 U	mg/Kg	2.1	0.52	10	05/28/2024 09:00	05/31/2024 11:09	J
Aroclor 1242 (PCB-1242)	0.52 U	mg/Kg	2.1	0.52	10	05/28/2024 09:00	05/31/2024 11:09	J
Aroclor 1248 (PCB-1248)	0.52 U	mg/Kg	2.1	0.52	10	05/28/2024 09:00	05/31/2024 11:09	J
Aroclor 1254 (PCB-1254)	0.52 U	mg/Kg	2.1	0.52	10	05/28/2024 09:00	05/31/2024 11:09	J
Aroclor 1260 (PCB-1260)	0.52 U	mg/Kg	2.1	0.52	10	05/28/2024 09:00	05/31/2024 11:09	J
SEMIVOLATILES (FL-PRO)								
TPH	22 U	mg/Kg	38	22	1	05/24/2024 10:00	05/29/2024 17:25	J
SEMIVOLATILES (SW-846 3550B/EPA 8081)								
4,4' -DDD	0.011 U	mg/Kg	0.069	0.011	10	05/28/2024 09:00	05/31/2024 22:30	J
4,4' -DDE	0.0086 U	mg/Kg	0.069	0.0086	10	05/28/2024 09:00	05/31/2024 22:30	J
4,4' -DDT	0.019 U	mg/Kg	0.069	0.019	10	05/28/2024 09:00	05/31/2024 22:30	J





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID: J2407489002	Date Collected: 05/21/2024 09:17					Matrix: Soil		
Sample ID: PC-24-8	Date Received: 05/22/2024 10:21							
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Aldrin	0.010 U	mg/Kg	0.069	0.010	10	05/28/2024 09:00	05/31/2024 22:30	J
Chlordane (technical)	0.28 U	mg/Kg	0.69	0.28	10	05/28/2024 09:00	05/31/2024 22:30	J
Dieldrin	0.0088 U	mg/Kg	0.069	0.0088	10	05/28/2024 09:00	05/31/2024 22:30	J
Endosulfan I	0.011 U	mg/Kg	0.069	0.011	10	05/28/2024 09:00	05/31/2024 22:30	J
Endosulfan II	0.0074 U	mg/Kg	0.069	0.0074	10	05/28/2024 09:00	05/31/2024 22:30	J
Endosulfan Sulfate	0.013 U	mg/Kg	0.069	0.013	10	05/28/2024 09:00	05/31/2024 22:30	J
Endrin	0.019 U	mg/Kg	0.069	0.019	10	05/28/2024 09:00	05/31/2024 22:30	J
Endrin Aldehyde	0.011 U	mg/Kg	0.069	0.011	10	05/28/2024 09:00	05/31/2024 22:30	J
Heptachlor	0.013 U	mg/Kg	0.069	0.013	10	05/28/2024 09:00	05/31/2024 22:30	J
Heptachlor Epoxide	0.0094 U	mg/Kg	0.069	0.0094	10	05/28/2024 09:00	05/31/2024 22:30	J
Methoxychlor	0.014 U	mg/Kg	0.069	0.014	10	05/28/2024 09:00	05/31/2024 22:30	J
Toxaphene	0.49 U	mg/Kg	0.69	0.49	10	05/28/2024 09:00	05/31/2024 22:30	J
alpha-BHC	0.012 U	mg/Kg	0.069	0.012	10	05/28/2024 09:00	05/31/2024 22:30	J
beta-BHC	0.0080 U	mg/Kg	0.069	0.0080	10	05/28/2024 09:00	05/31/2024 22:30	J
delta-BHC	0.0082 U	mg/Kg	0.069	0.0082	10	05/28/2024 09:00	05/31/2024 22:30	J
gamma-BHC (Lindane)	0.012 U	mg/Kg	0.069	0.012	10	05/28/2024 09:00	05/31/2024 22:30	J
SEMIVOLATILES (SW-846 3550B/SW-846 8270C (SIM))								
1-Methylnaphthalene	0.0089 U	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
2-Methylnaphthalene	0.0089 U	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Acenaphthene	0.0089 U	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Acenaphthylene	0.0089 U	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Anthracene	0.0089 U	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Benzo[a]anthracene	0.012 I	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Benzo[a]pyrene	0.019	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Benzo[b]fluoranthene	0.034	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Benzo[g,h,i]perylene	0.021	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Benzo[k]fluoranthene	0.0089 U	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID: J2407489002	Date Collected: 05/21/2024 09:17					Matrix: Soil		
Sample ID: PC-24-8	Date Received: 05/22/2024 10:21							
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Chrysene	0.020	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Dibenzo[a,h]anthracene	0.0089 U	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Fluoranthene	0.028	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Fluorene	0.0089 U	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Indeno(1,2,3-cd)pyrene	0.022	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Naphthalene	0.0089 U	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Phenanthrene	0.0089 U	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
Pyrene	0.023	mg/Kg	0.018	0.0089	1	05/24/2024 16:46	05/29/2024 01:24	J
(SM 2540G)								
Percent Moisture	55	%	0.0010	0.0010	1	05/28/2024 15:44	05/28/2024 15:44	J

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
2-Fluorobiphenyl (S)	mg/Kg	0.40	0.25	63	37 - 127	J
Nitrobenzene-d5 (S)	mg/Kg	0.40	0.23	58	33 - 134	J
p-Terphenyl-d14 (S)	mg/Kg	0.40	0.35	87	42 - 141	J
Nonatricontane-C39 (S)	mg/Kg	6	4	67	36 - 132	J
o-Terphenyl (S)	mg/Kg	2	1.70	85	66 - 136	J
Decachlorobiphenyl (S)	ug/Kg	78	71	91	63 - 130	J
Tetrachloro-m-xylene (S)	ug/Kg	160	110	71	42 - 129	J





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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Decachlorobiphenyl (S)	ug/Kg	78	87	112	61 - 147	J
Tetrachloro-m-xylene (S)	ug/Kg	160	130	86	44 - 130	J

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Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID:	J2407489003	Date Collected:	05/21/2024 09:34			Matrix:	Soil			
Sample ID:	PC-24-6	Date Received:	05/22/2024 10:21							
Parameter	Results	Units	PQL	MDL	DF	Prepared		Analyzed		Lab
METALS (SW-846 3050B/SW-846 6010)										
Aluminum	19000	mg/Kg	1300	330	10	05/24/2024 11:23		06/03/2024 15:21		J
Arsenic	1.6 U	mg/Kg	6.5	1.6	1	05/24/2024 11:23		05/28/2024 16:57		J
Barium	51	mg/Kg	6.5	1.6	1	05/24/2024 11:23		05/28/2024 16:57		J
Cadmium	0.92	mg/Kg	0.65	0.16	1	05/24/2024 11:23		05/28/2024 16:57		J
Chromium	51	mg/Kg	2.6	0.65	1	05/24/2024 11:23		05/28/2024 16:57		J
Copper	110	mg/Kg	6.5	1.6	1	05/24/2024 11:23		05/28/2024 16:57		J
Lead	71	mg/Kg	6.5	1.6	1	05/24/2024 11:23		05/28/2024 16:57		J
Nickel	12	mg/Kg	6.5	1.6	1	05/24/2024 11:23		05/28/2024 16:57		J
Selenium	3.3 U	mg/Kg	13	3.3	1	05/24/2024 11:23		05/28/2024 16:57		J
Silver	0.65 U	mg/Kg	2.6	0.65	1	05/24/2024 11:23		05/28/2024 16:57		J
Zinc	200	mg/Kg	130	33	1	05/24/2024 11:23		05/28/2024 16:57		J
METALS (SW-846 7471A)										
Mercury	0.25	mg/Kg	0.018	0.0044	1	05/28/2024 11:51		05/28/2024 17:58		J
SEMIVOLATILES (EPA 3546/SW-846 8082A)										
Aroclor 1016 (PCB-1016)	0.77 U	mg/Kg	3.1	0.77	10	05/28/2024 09:00		05/31/2024 11:30		J
Aroclor 1221 (PCB-1221)	0.77 U	mg/Kg	3.1	0.77	10	05/28/2024 09:00		05/31/2024 11:30		J
Aroclor 1232 (PCB-1232)	0.77 U	mg/Kg	3.1	0.77	10	05/28/2024 09:00		05/31/2024 11:30		J
Aroclor 1242 (PCB-1242)	0.77 U	mg/Kg	3.1	0.77	10	05/28/2024 09:00		05/31/2024 11:30		J
Aroclor 1248 (PCB-1248)	0.77 U	mg/Kg	3.1	0.77	10	05/28/2024 09:00		05/31/2024 11:30		J
Aroclor 1254 (PCB-1254)	0.77 U	mg/Kg	3.1	0.77	10	05/28/2024 09:00		05/31/2024 11:30		J
Aroclor 1260 (PCB-1260)	0.77 U	mg/Kg	3.1	0.77	10	05/28/2024 09:00		05/31/2024 11:30		J
SEMIVOLATILES (FL-PRO)										
TPH	31 U	mg/Kg	54	31	1	05/24/2024 10:00		05/29/2024 17:44		J
SEMIVOLATILES (SW-846 3550B/EPA 8081)										
4,4' -DDD	0.017 U	mg/Kg	0.10	0.017	10	05/28/2024 09:00		05/31/2024 22:50		J
4,4' -DDE	0.013 U	mg/Kg	0.10	0.013	10	05/28/2024 09:00		05/31/2024 22:50		J
4,4' -DDT	0.028 U	mg/Kg	0.10	0.028	10	05/28/2024 09:00		05/31/2024 22:50		J





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID:	J2407489003	Date Collected:	05/21/2024 09:34			Matrix:	Soil	
Sample ID:	PC-24-6	Date Received:	05/22/2024 10:21					
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Aldrin	0.015 U	mg/Kg	0.10	0.015	10	05/28/2024 09:00	05/31/2024 22:50	J
Chlordane (technical)	0.42 U	mg/Kg	1.0	0.42	10	05/28/2024 09:00	05/31/2024 22:50	J
Dieldrin	0.013 U	mg/Kg	0.10	0.013	10	05/28/2024 09:00	05/31/2024 22:50	J
Endosulfan I	0.016 U	mg/Kg	0.10	0.016	10	05/28/2024 09:00	05/31/2024 22:50	J
Endosulfan II	0.011 U	mg/Kg	0.10	0.011	10	05/28/2024 09:00	05/31/2024 22:50	J
Endosulfan Sulfate	0.019 U	mg/Kg	0.10	0.019	10	05/28/2024 09:00	05/31/2024 22:50	J
Endrin	0.028 U	mg/Kg	0.10	0.028	10	05/28/2024 09:00	05/31/2024 22:50	J
Endrin Aldehyde	0.017 U	mg/Kg	0.10	0.017	10	05/28/2024 09:00	05/31/2024 22:50	J
Heptachlor	0.019 U	mg/Kg	0.10	0.019	10	05/28/2024 09:00	05/31/2024 22:50	J
Heptachlor Epoxide	0.014 U	mg/Kg	0.10	0.014	10	05/28/2024 09:00	05/31/2024 22:50	J
Methoxychlor	0.021 U	mg/Kg	0.10	0.021	10	05/28/2024 09:00	05/31/2024 22:50	J
Toxaphene	0.73 U	mg/Kg	1.0	0.73	10	05/28/2024 09:00	05/31/2024 22:50	J
alpha-BHC	0.017 U	mg/Kg	0.10	0.017	10	05/28/2024 09:00	05/31/2024 22:50	J
beta-BHC	0.012 U	mg/Kg	0.10	0.012	10	05/28/2024 09:00	05/31/2024 22:50	J
delta-BHC	0.012 U	mg/Kg	0.10	0.012	10	05/28/2024 09:00	05/31/2024 22:50	J
gamma-BHC (Lindane)	0.018 U	mg/Kg	0.10	0.018	10	05/28/2024 09:00	05/31/2024 22:50	J
SEMIVOLATILES (SW-846 3550B/SW-846 8270C (SIM))								
1-Methylnaphthalene	0.013 U	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
2-Methylnaphthalene	0.013 U	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Acenaphthene	0.013 U	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Acenaphthylene	0.013 U	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Anthracene	0.013 U	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Benzo[a]anthracene	0.019 I	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Benzo[a]pyrene	0.030	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Benzo[b]fluoranthene	0.049	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Benzo[g,h,i]perylene	0.030	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Benzo[k]fluoranthene	0.013 U	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID: J2407489003	Date Collected: 05/21/2024 09:34					Matrix: Soil		
Sample ID: PC-24-6	Date Received: 05/22/2024 10:21							
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Chrysene	0.029	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Dibenzo[a,h]anthracene	0.013 U	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Fluoranthene	0.033	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Fluorene	0.013 U	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Indeno(1,2,3-cd)pyrene	0.030	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Naphthalene	0.013 U	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Phenanthrene	0.013 U	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
Pyrene	0.032	mg/Kg	0.025	0.013	1	05/24/2024 16:46	05/29/2024 01:51	J
(SM 2540G)								
Percent Moisture	69	%	0.0010	0.0010	1	05/28/2024 15:44	05/28/2024 15:44	J

Analysis Results Comments

Mercury

V|Method Blank Contamination

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
p-Terphenyl-d14 (S)	mg/Kg	0.39	0.36	92	42 - 141	J
2-Fluorobiphenyl (S)	mg/Kg	0.39	0.26	65	37 - 127	J
Nitrobenzene-d5 (S)	mg/Kg	0.39	0.23	58	33 - 134	J
Nonatricontane-C39 (S)	mg/Kg	5.90	3.80	64	36 - 132	J
o-Terphenyl (S)	mg/Kg	2	1.50	76	66 - 136	J
Decachlorobiphenyl (S)	ug/Kg	80	69	86	63 - 130	J
Tetrachloro-m-xylene (S)	ug/Kg	160	88	55	42 - 129	J





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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Decachlorobiphenyl (S)	ug/Kg	80	92	115	61 - 147	J
Tetrachloro-m-xylene (S)	ug/Kg	160	130	80	44 - 130	J

Certificate of Analysis

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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID: J2407489004		Date Collected: 05/21/2024 09:55				Matrix: Soil		
Sample ID: PC-24-5		Date Received: 05/22/2024 10:21						
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3050B/SW-846 6010)								
Aluminum	19000	mg/Kg	1300	330	10	05/24/2024 11:23	06/03/2024 15:25	J
Arsenic	1.8 I	mg/Kg	6.6	1.6	1	05/24/2024 11:23	05/28/2024 17:01	J
Barium	45	mg/Kg	6.6	1.6	1	05/24/2024 11:23	05/28/2024 17:01	J
Cadmium	0.67	mg/Kg	0.66	0.16	1	05/24/2024 11:23	05/28/2024 17:01	J
Chromium	49	mg/Kg	2.6	0.66	1	05/24/2024 11:23	05/28/2024 17:01	J
Copper	92	mg/Kg	6.6	1.6	1	05/24/2024 11:23	05/28/2024 17:01	J
Lead	67	mg/Kg	6.6	1.6	1	05/24/2024 11:23	05/28/2024 17:01	J
Nickel	11	mg/Kg	6.6	1.6	1	05/24/2024 11:23	05/28/2024 17:01	J
Selenium	3.3 U	mg/Kg	13	3.3	1	05/24/2024 11:23	05/28/2024 17:01	J
Silver	0.66 U	mg/Kg	2.6	0.66	1	05/24/2024 11:23	05/28/2024 17:01	J
Zinc	180	mg/Kg	130	33	1	05/24/2024 11:23	05/28/2024 17:01	J
METALS (SW-846 7471A)								
Mercury	0.23	mg/Kg	0.016	0.0040	1	05/28/2024 11:51	05/28/2024 18:01	J
SEMIVOLATILES (EPA 3546/SW-846 8082A)								
Aroclor 1016 (PCB-1016)	0.73 U	mg/Kg	2.9	0.73	10	05/28/2024 09:00	05/31/2024 11:50	J
Aroclor 1221 (PCB-1221)	0.73 U	mg/Kg	2.9	0.73	10	05/28/2024 09:00	05/31/2024 11:50	J
Aroclor 1232 (PCB-1232)	0.73 U	mg/Kg	2.9	0.73	10	05/28/2024 09:00	05/31/2024 11:50	J
Aroclor 1242 (PCB-1242)	0.73 U	mg/Kg	2.9	0.73	10	05/28/2024 09:00	05/31/2024 11:50	J
Aroclor 1248 (PCB-1248)	0.73 U	mg/Kg	2.9	0.73	10	05/28/2024 09:00	05/31/2024 11:50	J
Aroclor 1254 (PCB-1254)	0.73 U	mg/Kg	2.9	0.73	10	05/28/2024 09:00	05/31/2024 11:50	J
Aroclor 1260 (PCB-1260)	0.73 U	mg/Kg	2.9	0.73	10	05/28/2024 09:00	05/31/2024 11:50	J
SEMIVOLATILES (FL-PRO)								
TPH	32 U	mg/Kg	55	32	1	05/24/2024 10:00	05/29/2024 18:03	J
SEMIVOLATILES (SW-846 3550B/EPA 8081)								
4,4`-DDD	0.016 U	mg/Kg	0.098	0.016	10	05/28/2024 09:00	05/31/2024 23:11	J
4,4`-DDE	0.012 U	mg/Kg	0.098	0.012	10	05/28/2024 09:00	05/31/2024 23:11	J
4,4`-DDT	0.027 U	mg/Kg	0.098	0.027	10	05/28/2024 09:00	05/31/2024 23:11	J





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID: J2407489004	Date Collected: 05/21/2024 09:55					Matrix: Soil		
Sample ID: PC-24-5	Date Received: 05/22/2024 10:21							
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Aldrin	0.015 U	mg/Kg	0.098	0.015	10	05/28/2024 09:00	05/31/2024 23:11	J
Chlordane (technical)	0.40 U	mg/Kg	0.98	0.40	10	05/28/2024 09:00	05/31/2024 23:11	J
Dieldrin	0.012 U	mg/Kg	0.098	0.012	10	05/28/2024 09:00	05/31/2024 23:11	J
Endosulfan I	0.015 U	mg/Kg	0.098	0.015	10	05/28/2024 09:00	05/31/2024 23:11	J
Endosulfan II	0.010 U	mg/Kg	0.098	0.010	10	05/28/2024 09:00	05/31/2024 23:11	J
Endosulfan Sulfate	0.018 U	mg/Kg	0.098	0.018	10	05/28/2024 09:00	05/31/2024 23:11	J
Endrin	0.027 U	mg/Kg	0.098	0.027	10	05/28/2024 09:00	05/31/2024 23:11	J
Endrin Aldehyde	0.016 U	mg/Kg	0.098	0.016	10	05/28/2024 09:00	05/31/2024 23:11	J
Heptachlor	0.018 U	mg/Kg	0.098	0.018	10	05/28/2024 09:00	05/31/2024 23:11	J
Heptachlor Epoxide	0.013 U	mg/Kg	0.098	0.013	10	05/28/2024 09:00	05/31/2024 23:11	J
Methoxychlor	0.020 U	mg/Kg	0.098	0.020	10	05/28/2024 09:00	05/31/2024 23:11	J
Toxaphene	0.69 U	mg/Kg	0.98	0.69	10	05/28/2024 09:00	05/31/2024 23:11	J
alpha-BHC	0.016 U	mg/Kg	0.098	0.016	10	05/28/2024 09:00	05/31/2024 23:11	J
beta-BHC	0.011 U	mg/Kg	0.098	0.011	10	05/28/2024 09:00	05/31/2024 23:11	J
delta-BHC	0.012 U	mg/Kg	0.098	0.012	10	05/28/2024 09:00	05/31/2024 23:11	J
gamma-BHC (Lindane)	0.017 U	mg/Kg	0.098	0.017	10	05/28/2024 09:00	05/31/2024 23:11	J
SEMIVOLATILES (SW-846 3550B/SW-846 8270C (SIM))								
1-Methylnaphthalene	0.013 U	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
2-Methylnaphthalene	0.013 U	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Acenaphthene	0.013 U	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Acenaphthylene	0.013 U	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Anthracene	0.013 U	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Benzo[a]anthracene	0.019 I	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Benzo[a]pyrene	0.029	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Benzo[b]fluoranthene	0.054	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Benzo[g,h,i]perylene	0.034	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Benzo[k]fluoranthene	0.013 U	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J





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Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID: J2407489004	Date Collected: 05/21/2024 09:55	Matrix: Soil
Sample ID: PC-24-5	Date Received: 05/22/2024 10:21	

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Chrysene	0.031	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Dibenzo[a,h]anthracene	0.013 U	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Fluoranthene	0.034	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Fluorene	0.013 U	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Indeno(1,2,3-cd)pyrene	0.032	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Naphthalene	0.013 U	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Phenanthrene	0.013 U	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
Pyrene	0.029	mg/Kg	0.026	0.013	1	05/24/2024 16:46	05/29/2024 02:18	J
(SM 2540G)								
Percent Moisture	69	%	0.0010	0.0010	1	05/28/2024 15:44	05/28/2024 15:44	J

Analysis Results Comments

Mercury

V|Method Blank Contamination

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
2-Fluorobiphenyl (S)	mg/Kg	0.40	0.26	64	37 - 127	J
Nitrobenzene-d5 (S)	mg/Kg	0.40	0.25	63	33 - 134	J
p-Terphenyl-d14 (S)	mg/Kg	0.40	0.32	79	42 - 141	J
Nonatricontane-C39 (S)	mg/Kg	6.10	3.50	58	36 - 132	J
o-Terphenyl (S)	mg/Kg	2	1.40	70	66 - 136	J
Decachlorobiphenyl (S)	ug/Kg	77	70	91	63 - 130	J
Tetrachloro-m-xylene (S)	ug/Kg	150	100	65	42 - 129	J





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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Decachlorobiphenyl (S)	ug/Kg	77	90	117	61 - 147	J
Tetrachloro-m-xylene (S)	ug/Kg	150	150	96	44 - 130	J

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Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID:	J2407489005	Date Collected:				05/21/2024 10:29		Matrix:	Soil	
Sample ID:	PC-24-4	Date Received:				05/22/2024 10:21				
Parameter	Results	Units	PQL	MDL	DF	Prepared		Analyzed		Lab
METALS (SW-846 3050B/SW-846 6010)										
Aluminum	24000	mg/Kg	1500	370	10	05/24/2024 11:23		06/03/2024 15:28		J
Arsenic	2.0 I	mg/Kg	7.5	1.9	1	05/24/2024 11:23		05/28/2024 17:04		J
Barium	52	mg/Kg	7.5	1.9	1	05/24/2024 11:23		05/28/2024 17:04		J
Cadmium	0.73 I	mg/Kg	0.75	0.19	1	05/24/2024 11:23		05/28/2024 17:04		J
Chromium	61	mg/Kg	3.0	0.75	1	05/24/2024 11:23		05/28/2024 17:04		J
Copper	91	mg/Kg	7.5	1.9	1	05/24/2024 11:23		05/28/2024 17:04		J
Lead	59	mg/Kg	7.5	1.9	1	05/24/2024 11:23		05/28/2024 17:04		J
Nickel	14	mg/Kg	7.5	1.9	1	05/24/2024 11:23		05/28/2024 17:04		J
Selenium	3.7 U	mg/Kg	15	3.7	1	05/24/2024 11:23		05/28/2024 17:04		J
Silver	0.75 U	mg/Kg	3.0	0.75	1	05/24/2024 11:23		05/28/2024 17:04		J
Zinc	120 I	mg/Kg	150	37	1	05/24/2024 11:23		05/28/2024 17:04		J
METALS (SW-846 7471A)										
Mercury	0.35	mg/Kg	0.019	0.0047	1	05/28/2024 11:51		05/28/2024 18:04		J
SEMIVOLATILES (EPA 3546/SW-846 8082A)										
Aroclor 1016 (PCB-1016)	0.87 U	mg/Kg	3.5	0.87	10	05/28/2024 09:00		05/31/2024 12:11		J
Aroclor 1221 (PCB-1221)	0.87 U	mg/Kg	3.5	0.87	10	05/28/2024 09:00		05/31/2024 12:11		J
Aroclor 1232 (PCB-1232)	0.87 U	mg/Kg	3.5	0.87	10	05/28/2024 09:00		05/31/2024 12:11		J
Aroclor 1242 (PCB-1242)	0.87 U	mg/Kg	3.5	0.87	10	05/28/2024 09:00		05/31/2024 12:11		J
Aroclor 1248 (PCB-1248)	0.87 U	mg/Kg	3.5	0.87	10	05/28/2024 09:00		05/31/2024 12:11		J
Aroclor 1254 (PCB-1254)	0.87 U	mg/Kg	3.5	0.87	10	05/28/2024 09:00		05/31/2024 12:11		J
Aroclor 1260 (PCB-1260)	0.87 U	mg/Kg	3.5	0.87	10	05/28/2024 09:00		05/31/2024 12:11		J
SEMIVOLATILES (FL-PRO)										
TPH	35 U	mg/Kg	61	35	1	05/24/2024 10:00		05/29/2024 18:21		J
SEMIVOLATILES (SW-846 3550B/EPA 8081)										
4,4`-DDD	0.019 U	mg/Kg	0.12	0.019	10	05/28/2024 09:00		05/31/2024 23:32		J
4,4`-DDE	0.014 U	mg/Kg	0.12	0.014	10	05/28/2024 09:00		05/31/2024 23:32		J
4,4`-DDT	0.032 U	mg/Kg	0.12	0.032	10	05/28/2024 09:00		05/31/2024 23:32		J





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID:	J2407489005	Date Collected:	05/21/2024 10:29			Matrix:	Soil	
Sample ID:	PC-24-4	Date Received:	05/22/2024 10:21					
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Aldrin	0.017 U	mg/Kg	0.12	0.017	10	05/28/2024 09:00	05/31/2024 23:32	J
Chlordane (technical)	0.47 U	mg/Kg	1.2	0.47	10	05/28/2024 09:00	05/31/2024 23:32	J
Dieldrin	0.015 U	mg/Kg	0.12	0.015	10	05/28/2024 09:00	05/31/2024 23:32	J
Endosulfan I	0.018 U	mg/Kg	0.12	0.018	10	05/28/2024 09:00	05/31/2024 23:32	J
Endosulfan II	0.012 U	mg/Kg	0.12	0.012	10	05/28/2024 09:00	05/31/2024 23:32	J
Endosulfan Sulfate	0.021 U	mg/Kg	0.12	0.021	10	05/28/2024 09:00	05/31/2024 23:32	J
Endrin	0.032 U	mg/Kg	0.12	0.032	10	05/28/2024 09:00	05/31/2024 23:32	J
Endrin Aldehyde	0.019 U	mg/Kg	0.12	0.019	10	05/28/2024 09:00	05/31/2024 23:32	J
Heptachlor	0.021 U	mg/Kg	0.12	0.021	10	05/28/2024 09:00	05/31/2024 23:32	J
Heptachlor Epoxide	0.016 U	mg/Kg	0.12	0.016	10	05/28/2024 09:00	05/31/2024 23:32	J
Methoxychlor	0.023 U	mg/Kg	0.12	0.023	10	05/28/2024 09:00	05/31/2024 23:32	J
Toxaphene	0.81 U	mg/Kg	1.2	0.81	10	05/28/2024 09:00	05/31/2024 23:32	J
alpha-BHC	0.019 U	mg/Kg	0.12	0.019	10	05/28/2024 09:00	05/31/2024 23:32	J
beta-BHC	0.013 U	mg/Kg	0.12	0.013	10	05/28/2024 09:00	05/31/2024 23:32	J
delta-BHC	0.014 U	mg/Kg	0.12	0.014	10	05/28/2024 09:00	05/31/2024 23:32	J
gamma-BHC (Lindane)	0.020 U	mg/Kg	0.12	0.020	10	05/28/2024 09:00	05/31/2024 23:32	J
SEMIVOLATILES (SW-846 3550B/SW-846 8270C (SIM))								
1-Methylnaphthalene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J
2-Methylnaphthalene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J
Acenaphthene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J
Acenaphthylene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J
Anthracene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J
Benzo[a]anthracene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J
Benzo[a]pyrene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J
Benzo[b]fluoranthene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J
Benzo[g,h,i]perylene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J
Benzo[k]fluoranthene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID: J2407489005	Date Collected: 05/21/2024 10:29					Matrix: Soil			
Sample ID: PC-24-4	Date Received: 05/22/2024 10:21								
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab	
Chrysene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J	
Dibenzo[a,h]anthracene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J	
Fluoranthene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J	
Fluorene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J	
Indeno(1,2,3-cd)pyrene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J	
Naphthalene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J	
Phenanthrene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J	
Pyrene	0.014 U	mg/Kg	0.029	0.014	1	05/24/2024 16:46	05/29/2024 02:45	J	
(SM 2540G)									
Percent Moisture	72	%	0.0010	0.0010	1	05/28/2024 15:44	05/28/2024 15:44	J	

Analysis Results Comments

Mercury

V|Method Blank Contamination

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
2-Fluorobiphenyl (S)	mg/Kg	0.40	0.32	80	37 - 127	J
Nitrobenzene-d5 (S)	mg/Kg	0.40	0.30	75	33 - 134	J
p-Terphenyl-d14 (S)	mg/Kg	0.40	0.36	91	42 - 141	J
Nonatricontane-C39 (S)	mg/Kg	6	4.20	70	36 - 132	J
o-Terphenyl (S)	mg/Kg	2	1.70	84	66 - 136	J
Decachlorobiphenyl (S)	ug/Kg	80	84	105	63 - 130	J
Tetrachloro-m-xylene (S)	ug/Kg	160	130	84	42 - 129	J





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Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Decachlorobiphenyl (S)	ug/Kg	80	87	109	61 - 147	J
Tetrachloro-m-xylene (S)	ug/Kg	160	150	94	44 - 130	J

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Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID:	J2407489006	Date Collected:	05/21/2024 10:48			Matrix:	Soil	
Sample ID:	PC-24-3	Date Received:	05/22/2024 10:21					
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3050B/SW-846 6010)								
Aluminum	3700	mg/Kg	550	140	10	05/24/2024 11:23	06/03/2024 15:32	J
Arsenic	1.6 I	mg/Kg	2.7	0.68	1	05/24/2024 11:23	05/28/2024 17:15	J
Barium	7.7	mg/Kg	2.7	0.68	1	05/24/2024 11:23	05/28/2024 17:15	J
Cadmium	0.068 I	mg/Kg	0.27	0.068	1	05/24/2024 11:23	05/28/2024 17:15	J
Chromium	9.2	mg/Kg	1.1	0.27	1	05/24/2024 11:23	05/28/2024 17:15	J
Copper	23	mg/Kg	2.7	0.68	1	05/24/2024 11:23	05/28/2024 17:15	J
Lead	11	mg/Kg	2.7	0.68	1	05/24/2024 11:23	05/28/2024 17:15	J
Nickel	2.1 I	mg/Kg	2.7	0.68	1	05/24/2024 11:23	05/28/2024 17:15	J
Selenium	1.4 U	mg/Kg	5.5	1.4	1	05/24/2024 11:23	05/28/2024 17:15	J
Silver	0.27 U	mg/Kg	1.1	0.27	1	05/24/2024 11:23	05/28/2024 17:15	J
Zinc	16 I	mg/Kg	55	14	1	05/24/2024 11:23	05/28/2024 17:15	J
METALS (SW-846 7471A)								
Mercury	0.037	mg/Kg	0.0064	0.0016	1	05/30/2024 11:41	05/30/2024 14:25	J
SEMIVOLATILES (EPA 3546/SW-846 8082A)								
Aroclor 1016 (PCB-1016)	0.17 U	mg/Kg	0.67	0.17	5	05/28/2024 09:00	05/31/2024 12:32	J
Aroclor 1221 (PCB-1221)	0.17 U	mg/Kg	0.67	0.17	5	05/28/2024 09:00	05/31/2024 12:32	J
Aroclor 1232 (PCB-1232)	0.17 U	mg/Kg	0.67	0.17	5	05/28/2024 09:00	05/31/2024 12:32	J
Aroclor 1242 (PCB-1242)	0.17 U	mg/Kg	0.67	0.17	5	05/28/2024 09:00	05/31/2024 12:32	J
Aroclor 1248 (PCB-1248)	0.17 U	mg/Kg	0.67	0.17	5	05/28/2024 09:00	05/31/2024 12:32	J
Aroclor 1254 (PCB-1254)	0.17 U	mg/Kg	0.67	0.17	5	05/28/2024 09:00	05/31/2024 12:32	J
Aroclor 1260 (PCB-1260)	0.17 U	mg/Kg	0.67	0.17	5	05/28/2024 09:00	05/31/2024 12:32	J
SEMIVOLATILES (FL-PRO)								
TPH	14 U	mg/Kg	24	14	1	05/24/2024 10:00	05/29/2024 19:54	J
SEMIVOLATILES (SW-846 3550B/EPA 8081)								
4,4' -DDD	0.0073 U	mg/Kg	0.045	0.0073	10	05/28/2024 09:00	05/31/2024 23:52	J
4,4' -DDE	0.0056 U	mg/Kg	0.045	0.0056	10	05/28/2024 09:00	05/31/2024 23:52	J
4,4' -DDT	0.012 U	mg/Kg	0.045	0.012	10	05/28/2024 09:00	05/31/2024 23:52	J





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID:	J2407489006	Date Collected:				05/21/2024 10:48	Matrix:	Soil
Sample ID:	PC-24-3	Date Received:				05/22/2024 10:21		
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Aldrin	0.0067 U	mg/Kg	0.045	0.0067	10	05/28/2024 09:00	05/31/2024 23:52	J
Chlordane (technical)	0.18 U	mg/Kg	0.45	0.18	10	05/28/2024 09:00	05/31/2024 23:52	J
Dieldrin	0.0057 U	mg/Kg	0.045	0.0057	10	05/28/2024 09:00	05/31/2024 23:52	J
Endosulfan I	0.0070 U	mg/Kg	0.045	0.0070	10	05/28/2024 09:00	05/31/2024 23:52	J
Endosulfan II	0.0048 U	mg/Kg	0.045	0.0048	10	05/28/2024 09:00	05/31/2024 23:52	J
Endosulfan Sulfate	0.0082 U	mg/Kg	0.045	0.0082	10	05/28/2024 09:00	05/31/2024 23:52	J
Endrin	0.012 U	mg/Kg	0.045	0.012	10	05/28/2024 09:00	05/31/2024 23:52	J
Endrin Aldehyde	0.0074 U	mg/Kg	0.045	0.0074	10	05/28/2024 09:00	05/31/2024 23:52	J
Heptachlor	0.0084 U	mg/Kg	0.045	0.0084	10	05/28/2024 09:00	05/31/2024 23:52	J
Heptachlor Epoxide	0.0062 U	mg/Kg	0.045	0.0062	10	05/28/2024 09:00	05/31/2024 23:52	J
Methoxychlor	0.0091 U	mg/Kg	0.045	0.0091	10	05/28/2024 09:00	05/31/2024 23:52	J
Toxaphene	0.32 U	mg/Kg	0.45	0.32	10	05/28/2024 09:00	05/31/2024 23:52	J
alpha-BHC	0.0075 U	mg/Kg	0.045	0.0075	10	05/28/2024 09:00	05/31/2024 23:52	J
beta-BHC	0.0052 U	mg/Kg	0.045	0.0052	10	05/28/2024 09:00	05/31/2024 23:52	J
delta-BHC	0.0053 U	mg/Kg	0.045	0.0053	10	05/28/2024 09:00	05/31/2024 23:52	J
gamma-BHC (Lindane)	0.0079 U	mg/Kg	0.045	0.0079	10	05/28/2024 09:00	05/31/2024 23:52	J
SEMIVOLATILES (SW-846 3550B/SW-846 8270C (SIM))								
1-Methylnaphthalene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
2-Methylnaphthalene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Acenaphthene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Acenaphthylene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Anthracene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Benzo[a]anthracene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Benzo[a]pyrene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Benzo[b]fluoranthene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Benzo[g,h,i]perylene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Benzo[k]fluoranthene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID: J2407489006	Date Collected: 05/21/2024 10:48	Matrix: Soil
Sample ID: PC-24-3	Date Received: 05/22/2024 10:21	

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Chrysene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Dibenzo[a,h]anthracene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Fluoranthene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Fluorene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Indeno(1,2,3-cd)pyrene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Naphthalene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Phenanthrene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
Pyrene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:12	J
(SM 2540G)								
Percent Moisture	28	%	0.0010	0.0010	1	05/28/2024 15:44	05/28/2024 15:44	J

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
2-Fluorobiphenyl (S)	mg/Kg	0.40	0.34	84	37 - 127	J
Nitrobenzene-d5 (S)	mg/Kg	0.40	0.32	80	33 - 134	J
p-Terphenyl-d14 (S)	mg/Kg	0.40	0.38	94	42 - 141	J
Nonatricontane-C39 (S)	mg/Kg	6	4.60	76	36 - 132	J
o-Terphenyl (S)	mg/Kg	2	1.80	89	66 - 136	J
Decachlorobiphenyl (S)	ug/Kg	81	77	96	63 - 130	J
Tetrachloro-m-xylene (S)	ug/Kg	160	120	77	42 - 129	J





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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Decachlorobiphenyl (S)	ug/Kg	81	71	89	61 - 147	J
Tetrachloro-m-xylene (S)	ug/Kg	160	150	95	44 - 130	J

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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID:	J2407489007	Date Collected:	05/21/2024 11:10			Matrix:	Soil		
Sample ID:	PC-24-2	Date Received:	05/22/2024 10:21						
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab	
METALS (SW-846 3050B/SW-846 6010)									
Aluminum	1400	mg/Kg	570	140	10	05/24/2024 11:23	06/03/2024 15:35	J	
Arsenic	1.5 I	mg/Kg	2.9	0.71	1	05/24/2024 11:23	05/28/2024 17:19	J	
Barium	3.5	mg/Kg	2.9	0.71	1	05/24/2024 11:23	05/28/2024 17:19	J	
Cadmium	0.071 U	mg/Kg	0.29	0.071	1	05/24/2024 11:23	05/28/2024 17:19	J	
Chromium	4.4	mg/Kg	1.1	0.29	1	05/24/2024 11:23	05/28/2024 17:19	J	
Copper	5.8	mg/Kg	2.9	0.71	1	05/24/2024 11:23	05/28/2024 17:19	J	
Lead	3.0	mg/Kg	2.9	0.71	1	05/24/2024 11:23	05/28/2024 17:19	J	
Nickel	1.0 I	mg/Kg	2.9	0.71	1	05/24/2024 11:23	05/28/2024 17:19	J	
Selenium	1.4 U	mg/Kg	5.7	1.4	1	05/24/2024 11:23	05/28/2024 17:19	J	
Silver	0.29 U	mg/Kg	1.1	0.29	1	05/24/2024 11:23	05/28/2024 17:19	J	
Zinc	14 U	mg/Kg	57	14	1	05/24/2024 11:23	05/28/2024 17:19	J	
METALS (SW-846 7471A)									
Mercury	0.015	mg/Kg	0.0073	0.0018	1	05/30/2024 11:41	05/30/2024 14:27	J	
SEMIVOLATILES (EPA 3546/SW-846 8082A)									
Aroclor 1016 (PCB-1016)	0.31 U	mg/Kg	1.2	0.31	10	05/28/2024 09:00	05/31/2024 12:53	J	
Aroclor 1221 (PCB-1221)	0.31 U	mg/Kg	1.2	0.31	10	05/28/2024 09:00	05/31/2024 12:53	J	
Aroclor 1232 (PCB-1232)	0.31 U	mg/Kg	1.2	0.31	10	05/28/2024 09:00	05/31/2024 12:53	J	
Aroclor 1242 (PCB-1242)	0.31 U	mg/Kg	1.2	0.31	10	05/28/2024 09:00	05/31/2024 12:53	J	
Aroclor 1248 (PCB-1248)	0.31 U	mg/Kg	1.2	0.31	10	05/28/2024 09:00	05/31/2024 12:53	J	
Aroclor 1254 (PCB-1254)	0.31 U	mg/Kg	1.2	0.31	10	05/28/2024 09:00	05/31/2024 12:53	J	
Aroclor 1260 (PCB-1260)	0.31 U	mg/Kg	1.2	0.31	10	05/28/2024 09:00	05/31/2024 12:53	J	
SEMIVOLATILES (FL-PRO)									
TPH	14 U	mg/Kg	24	14	1	05/24/2024 10:00	05/29/2024 20:12	J	
SEMIVOLATILES (SW-846 3550B/EPA 8081)									
4,4' -DDD	0.0067 U	mg/Kg	0.042	0.0067	10	05/28/2024 09:00	06/01/2024 00:13	J	
4,4' -DDE	0.0052 U	mg/Kg	0.042	0.0052	10	05/28/2024 09:00	06/01/2024 00:13	J	
4,4' -DDT	0.011 U	mg/Kg	0.042	0.011	10	05/28/2024 09:00	06/01/2024 00:13	J	





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID:	J2407489007	Date Collected:	05/21/2024 11:10			Matrix:	Soil	
Sample ID:	PC-24-2	Date Received:	05/22/2024 10:21					
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Aldrin	0.0061 U	mg/Kg	0.042	0.0061	10	05/28/2024 09:00	06/01/2024 00:13	J
Chlordane (technical)	0.17 U	mg/Kg	0.42	0.17	10	05/28/2024 09:00	06/01/2024 00:13	J
Dieldrin	0.0053 U	mg/Kg	0.042	0.0053	10	05/28/2024 09:00	06/01/2024 00:13	J
Endosulfan I	0.0065 U	mg/Kg	0.042	0.0065	10	05/28/2024 09:00	06/01/2024 00:13	J
Endosulfan II	0.0044 U	mg/Kg	0.042	0.0044	10	05/28/2024 09:00	06/01/2024 00:13	J
Endosulfan Sulfate	0.0076 U	mg/Kg	0.042	0.0076	10	05/28/2024 09:00	06/01/2024 00:13	J
Endrin	0.011 U	mg/Kg	0.042	0.011	10	05/28/2024 09:00	06/01/2024 00:13	J
Endrin Aldehyde	0.0068 U	mg/Kg	0.042	0.0068	10	05/28/2024 09:00	06/01/2024 00:13	J
Heptachlor	0.0077 U	mg/Kg	0.042	0.0077	10	05/28/2024 09:00	06/01/2024 00:13	J
Heptachlor Epoxide	0.0057 U	mg/Kg	0.042	0.0057	10	05/28/2024 09:00	06/01/2024 00:13	J
Methoxychlor	0.0084 U	mg/Kg	0.042	0.0084	10	05/28/2024 09:00	06/01/2024 00:13	J
Toxaphene	0.29 U	mg/Kg	0.42	0.29	10	05/28/2024 09:00	06/01/2024 00:13	J
alpha-BHC	0.0070 U	mg/Kg	0.042	0.0070	10	05/28/2024 09:00	06/01/2024 00:13	J
beta-BHC	0.0048 U	mg/Kg	0.042	0.0048	10	05/28/2024 09:00	06/01/2024 00:13	J
delta-BHC	0.0049 U	mg/Kg	0.042	0.0049	10	05/28/2024 09:00	06/01/2024 00:13	J
gamma-BHC (Lindane)	0.0073 U	mg/Kg	0.042	0.0073	10	05/28/2024 09:00	06/01/2024 00:13	J
SEMIVOLATILES (SW-846 3550B/SW-846 8270C (SIM))								
1-Methylnaphthalene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J
2-Methylnaphthalene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J
Acenaphthene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J
Acenaphthylene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J
Anthracene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J
Benzo[a]anthracene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J
Benzo[a]pyrene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J
Benzo[b]fluoranthene	0.0066 I	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J
Benzo[g,h,i]perylene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J
Benzo[k]fluoranthene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID: J2407489007	Date Collected: 05/21/2024 11:10					Matrix: Soil			
Sample ID: PC-24-2	Date Received: 05/22/2024 10:21								
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab	
Chrysene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J	
Dibenzo[a,h]anthracene	0.0056 I	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J	
Fluoranthene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J	
Fluorene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J	
Indeno(1,2,3-cd)pyrene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J	
Naphthalene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J	
Phenanthrene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J	
Pyrene	0.0056 U	mg/Kg	0.011	0.0056	1	05/24/2024 16:46	05/29/2024 03:38	J	
(SM 2540G)									
Percent Moisture	27	%	0.0010	0.0010	1	05/28/2024 15:44	05/28/2024 15:44	J	

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
2-Fluorobiphenyl (S)	mg/Kg	0.41	0.30	74	37 - 127	J
Nitrobenzene-d5 (S)	mg/Kg	0.41	0.27	68	33 - 134	J
p-Terphenyl-d14 (S)	mg/Kg	0.41	0.33	80	42 - 141	J
Nonatricontane-C39 (S)	mg/Kg	6.10	3.70	60	36 - 132	J
o-Terphenyl (S)	mg/Kg	2	1.70	83	66 - 136	J
Decachlorobiphenyl (S)	ug/Kg	76	87	115	63 - 130	J
Tetrachloro-m-xylene (S)	ug/Kg	150	120	79	42 - 129	J





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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Decachlorobiphenyl (S)	ug/Kg	76	91	120	61 - 147	J
Tetrachloro-m-xylene (S)	ug/Kg	150	170	112	44 - 130	J

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Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID:	J2407489008	Date Collected:	05/21/2024 11:35			Matrix:	Soil		
Sample ID:	PC-24-1	Date Received:	05/22/2024 10:21						
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab	
METALS (SW-846 3050B/SW-846 6010)									
Aluminum	2000	mg/Kg	570	140	10	05/24/2024 11:23	06/03/2024 15:39	J	
Arsenic	0.71 U	mg/Kg	2.8	0.71	1	05/24/2024 11:23	05/28/2024 17:22	J	
Barium	5.3	mg/Kg	2.8	0.71	1	05/24/2024 11:23	05/28/2024 17:22	J	
Cadmium	0.071 U	mg/Kg	0.28	0.071	1	05/24/2024 11:23	05/28/2024 17:22	J	
Chromium	6.2	mg/Kg	1.1	0.28	1	05/24/2024 11:23	05/28/2024 17:22	J	
Copper	13	mg/Kg	2.8	0.71	1	05/24/2024 11:23	05/28/2024 17:22	J	
Lead	4.9	mg/Kg	2.8	0.71	1	05/24/2024 11:23	05/28/2024 17:22	J	
Nickel	1.5 I	mg/Kg	2.8	0.71	1	05/24/2024 11:23	05/28/2024 17:22	J	
Selenium	1.4 U	mg/Kg	5.7	1.4	1	05/24/2024 11:23	05/28/2024 17:22	J	
Silver	0.28 U	mg/Kg	1.1	0.28	1	05/24/2024 11:23	05/28/2024 17:22	J	
Zinc	25 I	mg/Kg	57	14	1	05/24/2024 11:23	05/28/2024 17:22	J	
METALS (SW-846 7471A)									
Mercury	0.021	mg/Kg	0.0070	0.0017	1	05/30/2024 11:41	05/30/2024 14:30	J	
SEMIVOLATILES (EPA 3546/SW-846 8082A)									
Aroclor 1016 (PCB-1016)	0.37 U	mg/Kg	1.5	0.37	10	05/28/2024 09:00	05/31/2024 13:14	J	
Aroclor 1221 (PCB-1221)	0.37 U	mg/Kg	1.5	0.37	10	05/28/2024 09:00	05/31/2024 13:14	J	
Aroclor 1232 (PCB-1232)	0.37 U	mg/Kg	1.5	0.37	10	05/28/2024 09:00	05/31/2024 13:14	J	
Aroclor 1242 (PCB-1242)	0.37 U	mg/Kg	1.5	0.37	10	05/28/2024 09:00	05/31/2024 13:14	J	
Aroclor 1248 (PCB-1248)	0.37 U	mg/Kg	1.5	0.37	10	05/28/2024 09:00	05/31/2024 13:14	J	
Aroclor 1254 (PCB-1254)	0.37 U	mg/Kg	1.5	0.37	10	05/28/2024 09:00	05/31/2024 13:14	J	
Aroclor 1260 (PCB-1260)	0.37 U	mg/Kg	1.5	0.37	10	05/28/2024 09:00	05/31/2024 13:14	J	
SEMIVOLATILES (FL-PRO)									
TPH	15 U	mg/Kg	25	15	1	05/24/2024 10:00	05/29/2024 20:31	J	
SEMIVOLATILES (SW-846 3550B/EPA 8081)									
4,4' -DDD	0.0080 U	mg/Kg	0.049	0.0080	10	05/28/2024 09:00	06/01/2024 00:34	J	
4,4' -DDE	0.0062 U	mg/Kg	0.049	0.0062	10	05/28/2024 09:00	06/01/2024 00:34	J	
4,4' -DDT	0.014 U	mg/Kg	0.049	0.014	10	05/28/2024 09:00	06/01/2024 00:34	J	





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID: J2407489008
Sample ID: PC-24-1

Date Collected: 05/21/2024 11:35
Date Received: 05/22/2024 10:21

Matrix: Soil

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Aldrin	0.0073 U	mg/Kg	0.049	0.0073	10	05/28/2024 09:00	06/01/2024 00:34	J
Chlordane (technical)	0.20 U	mg/Kg	0.49	0.20	10	05/28/2024 09:00	06/01/2024 00:34	J
Dieldrin	0.0063 U	mg/Kg	0.049	0.0063	10	05/28/2024 09:00	06/01/2024 00:34	J
Endosulfan I	0.0077 U	mg/Kg	0.049	0.0077	10	05/28/2024 09:00	06/01/2024 00:34	J
Endosulfan II	0.0053 U	mg/Kg	0.049	0.0053	10	05/28/2024 09:00	06/01/2024 00:34	J
Endosulfan Sulfate	0.0090 U	mg/Kg	0.049	0.0090	10	05/28/2024 09:00	06/01/2024 00:34	J
Endrin	0.014 U	mg/Kg	0.049	0.014	10	05/28/2024 09:00	06/01/2024 00:34	J
Endrin Aldehyde	0.0081 U	mg/Kg	0.049	0.0081	10	05/28/2024 09:00	06/01/2024 00:34	J
Heptachlor	0.0092 U	mg/Kg	0.049	0.0092	10	05/28/2024 09:00	06/01/2024 00:34	J
Heptachlor Epoxide	0.0068 U	mg/Kg	0.049	0.0068	10	05/28/2024 09:00	06/01/2024 00:34	J
Methoxychlor	0.010 U	mg/Kg	0.049	0.010	10	05/28/2024 09:00	06/01/2024 00:34	J
Toxaphene	0.35 U	mg/Kg	0.49	0.35	10	05/28/2024 09:00	06/01/2024 00:34	J
alpha-BHC	0.0083 U	mg/Kg	0.049	0.0083	10	05/28/2024 09:00	06/01/2024 00:34	J
beta-BHC	0.0057 U	mg/Kg	0.049	0.0057	10	05/28/2024 09:00	06/01/2024 00:34	J
delta-BHC	0.0058 U	mg/Kg	0.049	0.0058	10	05/28/2024 09:00	06/01/2024 00:34	J
gamma-BHC (Lindane)	0.0087 U	mg/Kg	0.049	0.0087	10	05/28/2024 09:00	06/01/2024 00:34	J
SEMIVOLATILES (SW-846 3550B/SW-846 8270C (SIM))								
1-Methylnaphthalene	0.0059 U	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J
2-Methylnaphthalene	0.0059 U	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J
Acenaphthene	0.0059 U	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J
Acenaphthylene	0.0059 U	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J
Anthracene	0.0059 U	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J
Benzo[a]anthracene	0.0059 U	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J
Benzo[a]pyrene	0.0059 U	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J
Benzo[b]fluoranthene	0.011 I	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J
Benzo[g,h,i]perylene	0.0072 I	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J
Benzo[k]fluoranthene	0.0059 U	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J

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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Lab ID: J2407489008	Date Collected: 05/21/2024 11:35					Matrix: Soil			
Sample ID: PC-24-1	Date Received: 05/22/2024 10:21								
Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab	
Chrysene	0.0059 U	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J	
Dibenzo[a,h]anthracene	0.0059 U	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J	
Fluoranthene	0.0060 I	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J	
Fluorene	0.0059 U	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J	
Indeno(1,2,3-cd)pyrene	0.0065 I	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J	
Naphthalene	0.0059 U	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J	
Phenanthrene	0.0059 U	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J	
Pyrene	0.0059 U	mg/Kg	0.012	0.0059	1	05/24/2024 16:46	05/29/2024 04:05	J	
(SM 2540G)									
Percent Moisture	33	%	0.0010	0.0010	1	05/28/2024 15:44	05/28/2024 15:44	J	

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
2-Fluorobiphenyl (S)	mg/Kg	0.40	0.21	53	37 - 127	J
Nitrobenzene-d5 (S)	mg/Kg	0.40	0.19	48	33 - 134	J
p-Terphenyl-d14 (S)	mg/Kg	0.40	0.28	71	42 - 141	J
Nonatricontane-C39 (S)	mg/Kg	6	3	51	36 - 132	J
o-Terphenyl (S)	mg/Kg	2	1.40	71	66 - 136	J
Decachlorobiphenyl (S)	ug/Kg	83	78	94	63 - 130	J
Tetrachloro-m-xylene (S)	ug/Kg	170	110	64	42 - 129	J

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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

Analytical Results

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Decachlorobiphenyl (S)	ug/Kg	83	81	97	61 - 147	J
Tetrachloro-m-xylene (S)	ug/Kg	170	170	100	44 - 130	J

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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

QC Results

QC Batch: CVAj/2440 **Analysis Method:** SW-846 7471A
Preparation Method: SW-846 7471A
Associated Lab IDs: J2407489001, J2407489002, J2407489003, J2407489004, J2407489005, J2407489006, J2407489007, J2407489008

Method Blank(5322873)

Parameter	Results	Units	PQL	MDL	Lab
Mercury	0.0021 I	mg/Kg	0.0050	0.0012	J

Lab Control Sample (5322874)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Mercury	mg/Kg	0.10	0.11	111	80 - 120	J

QC Result Comments

Method Blank - 5322873 - Mercury

V|Method Blank Contamination





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

QC Results

QC Batch: CVAJ/2443

Analysis Method: SW-846 7471A

Preparation Method: SW-846 7471A

Associated Lab IDs: J2407489002, J2407489006, J2407489007, J2407489008

Method Blank(5326298)

Parameter	Results	Units	PQL	MDL	Lab
Mercury	0.0012 U	mg/Kg	0.0050	0.0012	J

Lab Control Sample (5326299)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Mercury	mg/Kg	0.10	0.1	101	80 - 120	J

Matrix Spike (5326300); Matrix Spike Duplicate (5326301); Original (S2401324007); Parent Lab Sample (S2401324007)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Mercury	mg/Kg	0.0920	0.11	103	80 - 120	0.11	101	8	20	J

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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

QC Results

QC Batch: GCSJ/6434 **Analysis Method:** EPA 8081
Preparation Method: SW-846 3550B
Associated Lab IDs: J2407489001, J2407489002, J2407489003, J2407489004, J2407489005, J2407489006, J2407489007, J2407489008

Method Blank(5324200)

Parameter	Results	Units	PQL	MDL	Lab
alpha-BHC	0.00054 U	mg/Kg	0.0032	0.00054	J
gamma-BHC (Lindane)	0.00057 U	mg/Kg	0.0032	0.00057	J
beta-BHC	0.00037 U	mg/Kg	0.0032	0.00037	J
delta-BHC	0.00038 U	mg/Kg	0.0032	0.00038	J
Heptachlor	0.00060 U	mg/Kg	0.0032	0.00060	J
Aldrin	0.00048 U	mg/Kg	0.0032	0.00048	J
Heptachlor Epoxide	0.00044 U	mg/Kg	0.0032	0.00044	J
Endosulfan I	0.00050 U	mg/Kg	0.0032	0.00050	J
4,4'-DDE	0.00040 U	mg/Kg	0.0032	0.00040	J
Dieldrin	0.00041 U	mg/Kg	0.0032	0.00041	J
Endrin	0.00089 U	mg/Kg	0.0032	0.00089	J
4,4'-DDD	0.00052 U	mg/Kg	0.0032	0.00052	J
Endosulfan II	0.00035 U	mg/Kg	0.0032	0.00035	J
Endrin Aldehyde	0.00053 U	mg/Kg	0.0032	0.00053	J
4,4'-DDT	0.00089 U	mg/Kg	0.0032	0.00089	J
Endosulfan Sulfate	0.00059 U	mg/Kg	0.0032	0.00059	J
Methoxychlor	0.00065 U	mg/Kg	0.0032	0.00065	J
Chlordane (technical)	0.013 U	mg/Kg	0.032	0.013	J
Toxaphene	0.023 U	mg/Kg	0.032	0.023	J

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Decachlorobiphenyl (S)	mg/L	0.0810	0.0590	73	63 - 130	J
Tetrachloro-m-xylene (S)	mg/L	0.16	0.0770	48	42 - 129	J

Lab Control Sample (5324201)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
alpha-BHC	mg/Kg	0.0160	0.017	110	45 - 137	J
gamma-BHC (Lindane)	mg/Kg	0.0160	0.016	105	49 - 135	J
beta-BHC	mg/Kg	0.0160	0.016	100	50 - 136	J
delta-BHC	mg/Kg	0.0160	0.016	103	47 - 139	J
Heptachlor	mg/Kg	0.0160	0.015	98	47 - 136	J
Aldrin	mg/Kg	0.0160	0.014	88	45 - 136	J





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

QC Batch: GCSJ/6434 **Analysis Method:** EPA 8081
Preparation Method: SW-846 3550B
Associated Lab IDs: J2407489001, J2407489002, J2407489003, J2407489004, J2407489005, J2407489006, J2407489007, J2407489008

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Heptachlor Epoxide	mg/Kg	0.0160	0.014	91	52 - 136	J
Endosulfan I	mg/Kg	0.0160	0.015	98	53 - 132	J
4,4'-DDE	mg/Kg	0.0160	0.014	92	56 - 134	J
Dieldrin	mg/Kg	0.0160	0.015	95	56 - 136	J
Endrin	mg/Kg	0.0160	0.015	94	57 - 140	J
4,4'-DDD	mg/Kg	0.0160	0.015	99	56 - 139	J
Endosulfan II	mg/Kg	0.0160	0.013	84	53 - 134	J
Endrin Aldehyde	mg/Kg	0.0160	0.016	100	35 - 137	J
4,4'-DDT	mg/Kg	0.0160	0.016	101	50 - 141	J
Endosulfan Sulfate	mg/Kg	0.0160	0.014	90	55 - 136	J
Methoxychlor	mg/Kg	0.0160	0.019	119	52 - 143	J

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Decachlorobiphenyl (S)	mg/L	0.0780	0.0760	97	63 - 130	J
Tetrachloro-m-xylene (S)	mg/L	0.16	0.16	105	42 - 129	J

Matrix Spike (5324202); Matrix Spike Duplicate (5324203); Original (F2403180005); Parent Lab Sample (F2403180005)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
alpha-BHC	mg/Kg	0.0160	0.0077	48	45 - 137	0.0066	41	15	30	J
beta-BHC	mg/Kg	0.0160	0.012	74	50 - 136	0.011	72	3	30	J
delta-BHC	mg/Kg	0.0160	0.012	77	47 - 139	0.014	86	10	30	J
Heptachlor	mg/Kg	0.0160	0.011	67	47 - 136	0.0095	59	12	30	J
Aldrin	mg/Kg	0.0160	0.0084	53	45 - 136	0.0074	46	13	30	J
Heptachlor Epoxide	mg/Kg	0.0160	0.0094	59	52 - 136	0.0089	56	5	30	J
Endosulfan I	mg/Kg	0.0160	0.011	66	53 - 132	0.0096	60	9	30	J
4,4'-DDE	mg/Kg	0.0160	0.01	62	56 - 134	0.0096	60	4	30	J
Dieldrin	mg/Kg	0.0160	0.01	63	56 - 136	0.0093	58	7	30	J
Endrin	mg/Kg	0.0160	0.01	66	57 - 140	0.0095	59	10	30	J
4,4'-DDD	mg/Kg	0.0160	0.012	75	56 - 139	0.011	72	4	30	J
Endosulfan II	mg/Kg	0.0160	0.01	63	53 - 134	0.0092	58	8	30	J
Endrin Aldehyde	mg/Kg	0.0160	0.012	75	35 - 137	0.011	69	9	30	J
4,4'-DDT	mg/Kg	0.0160	0.011	71	50 - 141	0.011	67	6	30	J
Endosulfan Sulfate	mg/Kg	0.0160	0.011	71	55 - 136	0.01	65	9	30	J
Methoxychlor	mg/Kg	0.0160	0.018	115	52 - 143	0.017	104	11	30	J

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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

QC Batch: GCSJ/6434 **Analysis Method:** EPA 8081
Preparation Method: SW-846 3550B
Associated Lab IDs: J2407489001, J2407489002, J2407489003, J2407489004, J2407489005, J2407489006, J2407489007, J2407489008

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Decachlorobiphenyl (S)	mg/L	0.08	0.0530	67	63 - 130	0.0530	66	1		J
Tetrachloro-m-xylene (S)	mg/L	0.16	0.0670	42	42 - 129	0.0550	35	19		J

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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

QC Results

QC Batch: GCSJ/6436 **Analysis Method:** FL-PRO
Preparation Method: FL-PRO
Associated Lab IDs: J2407489001, J2407489002, J2407489003, J2407489004, J2407489005, J2407489006, J2407489007, J2407489008

Method Blank(5321282)

Parameter	Results	Units	PQL	MDL	Lab
TPH	9.9 U	mg/Kg	17	9.9	J

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Nonatricontane-C39 (S)	mg/L	6	2.30	38	36 - 132	J
o-Terphenyl (S)	mg/L	2	1.40	68	66 - 136	J

Lab Control Sample (5321283)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
TPH	mg/Kg	34	23	68	49 - 128	J

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Nonatricontane-C39 (S)	mg/L	5.90	3.20	54	36 - 132	J
o-Terphenyl (S)	mg/L	2	1.60	80	66 - 136	J

Matrix Spike (5321833); Matrix Spike Duplicate (5321834); Original (J2407336003); Parent Lab Sample (J2407336003)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
TPH	mg/Kg	34	2100	-294	49 - 128	2500	895	17	25	J

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Nonatricontane-C39 (S)	mg/L	6	3.20	53	36 - 132	24	406	153	25	J
o-Terphenyl (S)	mg/L	2	1.50	74	66 - 136	1.30	67	12	25	J

QC Result Comments

Matrix Spike - 5321833 - TPH

J4|Estimated Result

Matrix Spike Duplicate - 5321834 - TPH

J4|Estimated Result





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

QC Results

QC Batch: GCSJ/6450 Analysis Method: SW-846 8082A
Preparation Method: EPA 3546
Associated Lab IDs: J2407489001, J2407489002, J2407489003, J2407489004, J2407489005, J2407489006, J2407489007, J2407489008

Method Blank(5326179)

Parameter	Results	Units	PQL	MDL	Lab
Aroclor 1016 (PCB-1016)	0.023 U	mg/Kg	0.092	0.023	J
Aroclor 1221 (PCB-1221)	0.023 U	mg/Kg	0.092	0.023	J
Aroclor 1232 (PCB-1232)	0.023 U	mg/Kg	0.092	0.023	J
Aroclor 1242 (PCB-1242)	0.023 U	mg/Kg	0.092	0.023	J
Aroclor 1248 (PCB-1248)	0.023 U	mg/Kg	0.092	0.023	J
Aroclor 1254 (PCB-1254)	0.023 U	mg/Kg	0.092	0.023	J
Aroclor 1260 (PCB-1260)	0.023 U	mg/Kg	0.092	0.023	J

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Decachlorobiphenyl (S)	mg/L	0.0770	0.0710	92	61 - 147	J
Tetrachloro-m-xylene (S)	mg/L	0.15	0.12	80	44 - 130	J

Lab Control Sample (5326180)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Aroclor 1016 (PCB-1016)	mg/Kg	0.16	0.16	100	47 - 134	J
Aroclor 1260 (PCB-1260)	mg/Kg	0.16	0.16	97	53 - 140	J

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Decachlorobiphenyl (S)	mg/L	0.0810	0.0760	94	61 - 147	J
Tetrachloro-m-xylene (S)	mg/L	0.16	0.14	86	44 - 130	J

Matrix Spike (5324231); Matrix Spike Duplicate (5324232); Original (J2407489007); Parent Lab Sample (J2407489007)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Aroclor 1016 (PCB-1016)	mg/Kg	0.16	0.13	83	47 - 134	0.11	70	18		J
Aroclor 1260 (PCB-1260)	mg/Kg	0.16	0.16	98	53 - 140	0.15	95	5		J

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Decachlorobiphenyl (S)	mg/L	0.0790	0.0980	123	61 - 147	0.0970	124	1		J
Tetrachloro-m-xylene (S)	mg/L	0.16	0.20	124	44 - 130	0.19	124	2		J

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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

QC Results

QC Batch: ICPJ/3605 **Analysis Method:** SW-846 6010
Preparation Method: SW-846 3050B
Associated Lab IDs: J2407489001, J2407489002, J2407489003, J2407489004, J2407489005, J2407489006, J2407489007, J2407489008

Method Blank(5321134)

Parameter	Results	Units	PQL	MDL	Lab
Silver	0.20 U	mg/Kg	0.80	0.20	J
Aluminum	10 U	mg/Kg	40	10	J
Arsenic	0.50 U	mg/Kg	2.0	0.50	J
Barium	0.50 U	mg/Kg	2.0	0.50	J
Cadmium	0.050 U	mg/Kg	0.20	0.050	J
Chromium	0.20 U	mg/Kg	0.80	0.20	J
Copper	0.50 U	mg/Kg	2.0	0.50	J
Nickel	0.50 U	mg/Kg	2.0	0.50	J
Lead	0.50 U	mg/Kg	2.0	0.50	J
Selenium	1.0 U	mg/Kg	4.0	1.0	J
Zinc	10 U	mg/Kg	40	10	J

Lab Control Sample (5321135)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Silver	mg/Kg	4	4.6	115	80 - 120	J
Aluminum	mg/Kg	200	180	92	80 - 120	J
Arsenic	mg/Kg	10	9.2	92	80 - 120	J
Barium	mg/Kg	10	9.2	92	80 - 120	J
Cadmium	mg/Kg	1	0.93	93	80 - 120	J
Chromium	mg/Kg	4	3.7	94	80 - 120	J
Copper	mg/Kg	10	9.2	92	80 - 120	J
Nickel	mg/Kg	10	9.3	93	80 - 120	J
Lead	mg/Kg	10	8.8	88	80 - 120	J
Selenium	mg/Kg	20	19	93	80 - 120	J
Zinc	mg/Kg	200	190	94	80 - 120	J

Matrix Spike (5321136); Matrix Spike Duplicate (5321137); Original (J2407489001); Parent Lab Sample (J2407489001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Silver	mg/Kg	3.70	4	107	75 - 125	4.2	103	4	20	J
Aluminum	mg/Kg	190	5900	820	75 - 125	5400	502	9	20	J
Arsenic	mg/Kg	9.30	8.6	86	75 - 125	8.7	81	1	20	J
Barium	mg/Kg	9.30	21	96	75 - 125	21	85	2	20	J





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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

QC Batch: ICPJ/3605 **Analysis Method:** SW-846 6010
Preparation Method: SW-846 3050B
Associated Lab IDs: J2407489001, J2407489002, J2407489003, J2407489004, J2407489005, J2407489006, J2407489007, J2407489008

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Cadmium	mg/Kg	0.93	0.93	78	75 - 125	0.94	73	1	20	J
Chromium	mg/Kg	3.70	17	145	75 - 125	16	123	3	20	J
Copper	mg/Kg	9.30	33	114	75 - 125	32	97	3	20	J
Nickel	mg/Kg	9.30	11	84	75 - 125	11	80	2	20	J
Lead	mg/Kg	9.30	20	113	75 - 125	19	96	5	20	J
Selenium	mg/Kg	19	17	90	75 - 125	17	84	1	20	J
Zinc	mg/Kg	190	220	88	75 - 125	220	83	2	20	J

Matrix Spike (5321136); Matrix Spike Duplicate (5321137); Original (J2407489001); Parent Lab Sample (J2407489001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Silver	mg/Kg	3.70	4	107	75 - 125	4.2	103	4	20	J
Aluminum	mg/Kg	190	5900	820	75 - 125	5400	502	9	20	J
Arsenic	mg/Kg	9.30	8.6	86	75 - 125	8.7	81	1	20	J
Barium	mg/Kg	9.30	21	96	75 - 125	21	85	2	20	J
Cadmium	mg/Kg	0.93	0.93	78	75 - 125	0.94	73	1	20	J
Chromium	mg/Kg	3.70	17	145	75 - 125	16	123	3	20	J
Copper	mg/Kg	9.30	33	114	75 - 125	32	97	3	20	J
Nickel	mg/Kg	9.30	11	84	75 - 125	11	80	2	20	J
Lead	mg/Kg	9.30	20	113	75 - 125	19	96	5	20	J
Selenium	mg/Kg	19	17	90	75 - 125	17	84	1	20	J
Zinc	mg/Kg	190	220	88	75 - 125	220	83	2	20	J





FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

QC Results

QC Batch: MSSJ/3992 **Analysis Method:** SW-846 8270C (SIM)
Preparation Method: SW-846 3550B
Associated Lab IDs: J2407489001, J2407489002, J2407489003, J2407489004, J2407489005, J2407489006, J2407489007, J2407489008

Method Blank(5321289)

Parameter	Results	Units	PQL	MDL	Lab
Naphthalene	0.0040 U	mg/Kg	0.0081	0.0040	J
2-Methylnaphthalene	0.0040 U	mg/Kg	0.0081	0.0040	J
1-Methylnaphthalene	0.0040 U	mg/Kg	0.0081	0.0040	J
Acenaphthylene	0.0040 U	mg/Kg	0.0081	0.0040	J
Acenaphthene	0.0040 U	mg/Kg	0.0081	0.0040	J
Fluorene	0.0040 U	mg/Kg	0.0081	0.0040	J
Phenanthrene	0.0040 U	mg/Kg	0.0081	0.0040	J
Anthracene	0.0040 U	mg/Kg	0.0081	0.0040	J
Fluoranthene	0.0040 U	mg/Kg	0.0081	0.0040	J
Pyrene	0.0040 U	mg/Kg	0.0081	0.0040	J
Benzo[a]anthracene	0.0040 U	mg/Kg	0.0081	0.0040	J
Chrysene	0.0040 U	mg/Kg	0.0081	0.0040	J
Benzo[b]fluoranthene	0.0040 U	mg/Kg	0.0081	0.0040	J
Benzo[k]fluoranthene	0.0040 U	mg/Kg	0.0081	0.0040	J
Benzo[a]pyrene	0.0040 U	mg/Kg	0.0081	0.0040	J
Indeno(1,2,3-cd)pyrene	0.0040 U	mg/Kg	0.0081	0.0040	J
Dibenzo[a,h]anthracene	0.0040 U	mg/Kg	0.0081	0.0040	J
Benzo[g,h,i]perylene	0.0040 U	mg/Kg	0.0081	0.0040	J

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
2-Fluorobiphenyl (S)	mg/L	0.40	0.27	67	37 - 127	J
Nitrobenzene-d5 (S)	mg/L	0.40	0.28	68	33 - 134	J
p-Terphenyl-d14 (S)	mg/L	0.40	0.35	86	42 - 141	J

Lab Control Sample (5321290)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Naphthalene	mg/Kg	0.20	0.13	64	38 - 120	J
2-Methylnaphthalene	mg/Kg	0.20	0.14	69	39 - 120	J
1-Methylnaphthalene	mg/Kg	0.20	0.15	73	43 - 120	J
Acenaphthylene	mg/Kg	0.20	0.14	68	39 - 118	J
Acenaphthene	mg/Kg	0.20	0.13	66	44 - 117	J
Fluorene	mg/Kg	0.20	0.14	71	47 - 121	J

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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

QC Batch: MSSJ/3992 **Analysis Method:** SW-846 8270C (SIM)
Preparation Method: SW-846 3550B
Associated Lab IDs: J2407489001, J2407489002, J2407489003, J2407489004, J2407489005, J2407489006, J2407489007, J2407489008

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Phenanthrene	mg/Kg	0.20	0.14	71	49 - 122	J
Anthracene	mg/Kg	0.20	0.15	76	50 - 123	J
Fluoranthene	mg/Kg	0.20	0.15	75	51 - 126	J
Pyrene	mg/Kg	0.20	0.15	74	51 - 127	J
Benzo[a]anthracene	mg/Kg	0.20	0.15	72	52 - 126	J
Chrysene	mg/Kg	0.20	0.15	74	52 - 128	J
Benzo[b]fluoranthene	mg/Kg	0.20	0.14	70	43 - 132	J
Benzo[k]fluoranthene	mg/Kg	0.20	0.15	73	46 - 133	J
Benzo[a]pyrene	mg/Kg	0.20	0.15	75	42 - 129	J
Indeno(1,2,3-cd)pyrene	mg/Kg	0.20	0.16	78	39 - 135	J
Dibenzo[a,h]anthracene	mg/Kg	0.20	0.15	77	40 - 139	J
Benzo[g,h,i]perylene	mg/Kg	0.20	0.14	71	41 - 133	J

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
2-Fluorobiphenyl (S)	mg/L	0.40	0.30	75	37 - 127	J
Nitrobenzene-d5 (S)	mg/L	0.40	0.29	71	33 - 134	J
p-Terphenyl-d14 (S)	mg/L	0.40	0.36	90	42 - 141	J

Matrix Spike (5321601); Matrix Spike Duplicate (5321602); Original (J2407336003); Parent Lab Sample (J2407336003)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Naphthalene	mg/Kg	0.20	0.12	62	38 - 120	0.12	56	4	30	J
2-Methylnaphthalene	mg/Kg	0.20	0.13	66	39 - 120	0.13	65	3	30	J
1-Methylnaphthalene	mg/Kg	0.20	0.13	68	43 - 120	0.13	63	2	30	J
Acenaphthylene	mg/Kg	0.20	0.13	64	39 - 118	0.12	57	6	30	J
Acenaphthene	mg/Kg	0.20	0.13	67	44 - 117	0.12	60	5	30	J
Fluorene	mg/Kg	0.20	0.14	72	47 - 121	0.13	64	7	30	J
Phenanthrene	mg/Kg	0.20	0.14	71	49 - 122	0.13	64	5	30	J
Anthracene	mg/Kg	0.20	0.15	74	50 - 123	0.14	68	3	30	J
Fluoranthene	mg/Kg	0.20	0.14	70	51 - 126	0.13	63	5	30	J
Pyrene	mg/Kg	0.20	0.13	66	51 - 127	0.13	59	5	30	J
Benzo[a]anthracene	mg/Kg	0.20	0.13	68	52 - 126	0.13	62	5	30	J
Chrysene	mg/Kg	0.20	0.13	68	52 - 128	0.13	62	4	30	J
Benzo[b]fluoranthene	mg/Kg	0.20	0.14	70	43 - 132	0.12	60	10	30	J
Benzo[k]fluoranthene	mg/Kg	0.20	0.14	71	46 - 133	0.13	61	9	30	J

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FINAL

Workorder: Phillippi Creek Dredging Study (J2407489)

QC Batch: MSSJ/3992 Analysis Method: SW-846 8270C (SIM)
Preparation Method: SW-846 3550B
Associated Lab IDs: J2407489001, J2407489002, J2407489003, J2407489004, J2407489005, J2407489006, J2407489007, J2407489008

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Benzo[a]pyrene	mg/Kg	0.20	0.14	72	42 - 129	0.13	61	11	30	J
Indeno(1,2,3-cd)pyrene	mg/Kg	0.20	0.16	84	39 - 135	0.15	71	11	30	J
Dibenzo[a,h]anthracene	mg/Kg	0.20	0.16	79	40 - 139	0.15	70	7	30	J
Benzo[g,h,i]perylene	mg/Kg	0.20	0.14	72	41 - 133	0.13	62	9	30	J

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
2-Fluorobiphenyl (S)	mg/L	0.39	0.30	76	37 - 127	0.28	67	7	30	J
Nitrobenzene-d5 (S)	mg/L	0.39	0.26	66	33 - 134	0.24	58	8	30	J
p-Terphenyl-d14 (S)	mg/L	0.39	0.32	81	42 - 141	0.30	72	6	30	J

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Workorder: Phillippi Creek Dredging Study (J2407489)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
CVAj/2440 - SW-846 7471A			
J2407489001	PC-24-7	DGMj/8366	SW-846 7471A
J2407489003	PC-24-6	DGMj/8366	SW-846 7471A
J2407489004	PC-24-5	DGMj/8366	SW-846 7471A
J2407489005	PC-24-4	DGMj/8366	SW-846 7471A
CVAj/2443 - SW-846 7471A			
J2407489002	PC-24-8	DGMj/8382	SW-846 7471A
J2407489006	PC-24-3	DGMj/8382	SW-846 7471A
J2407489007	PC-24-2	DGMj/8382	SW-846 7471A
J2407489008	PC-24-1	DGMj/8382	SW-846 7471A
GCSj/6434 - EPA 8081			
J2407489001	PC-24-7	EXTj/9144	SW-846 3550B
J2407489002	PC-24-8	EXTj/9144	SW-846 3550B
J2407489003	PC-24-6	EXTj/9144	SW-846 3550B
J2407489004	PC-24-5	EXTj/9144	SW-846 3550B
J2407489005	PC-24-4	EXTj/9144	SW-846 3550B
J2407489006	PC-24-3	EXTj/9144	SW-846 3550B
J2407489007	PC-24-2	EXTj/9144	SW-846 3550B
J2407489008	PC-24-1	EXTj/9144	SW-846 3550B
GCSj/6436 - FL-PRO			
J2407489001	PC-24-7	EXTj/9125	FL-PRO
J2407489002	PC-24-8	EXTj/9125	FL-PRO
J2407489003	PC-24-6	EXTj/9125	FL-PRO
J2407489004	PC-24-5	EXTj/9125	FL-PRO
J2407489005	PC-24-4	EXTj/9125	FL-PRO
J2407489006	PC-24-3	EXTj/9125	FL-PRO
J2407489007	PC-24-2	EXTj/9125	FL-PRO
J2407489008	PC-24-1	EXTj/9125	FL-PRO

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Workorder: Phillippi Creek Dredging Study (J2407489)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
GCSj/6450 - SW-846 8082A			
J2407489001	PC-24-7	EXTj/9158	EPA 3546
J2407489002	PC-24-8	EXTj/9158	EPA 3546
J2407489003	PC-24-6	EXTj/9158	EPA 3546
J2407489004	PC-24-5	EXTj/9158	EPA 3546
J2407489005	PC-24-4	EXTj/9158	EPA 3546
J2407489006	PC-24-3	EXTj/9158	EPA 3546
J2407489007	PC-24-2	EXTj/9158	EPA 3546
J2407489008	PC-24-1	EXTj/9158	EPA 3546
ICPj/3605 - SW-846 6010			
J2407489001	PC-24-7	DGMj/8344	SW-846 3050B
J2407489002	PC-24-8	DGMj/8344	SW-846 3050B
J2407489003	PC-24-6	DGMj/8344	SW-846 3050B
J2407489004	PC-24-5	DGMj/8344	SW-846 3050B
J2407489005	PC-24-4	DGMj/8344	SW-846 3050B
J2407489006	PC-24-3	DGMj/8344	SW-846 3050B
J2407489007	PC-24-2	DGMj/8344	SW-846 3050B
J2407489008	PC-24-1	DGMj/8344	SW-846 3050B
MSSj/3992 - SW-846 8270C (SIM)			
J2407489001	PC-24-7	EXTj/9126	SW-846 3550B
J2407489002	PC-24-8	EXTj/9126	SW-846 3550B
J2407489003	PC-24-6	EXTj/9126	SW-846 3550B
J2407489004	PC-24-5	EXTj/9126	SW-846 3550B
J2407489005	PC-24-4	EXTj/9126	SW-846 3550B
J2407489006	PC-24-3	EXTj/9126	SW-846 3550B
J2407489007	PC-24-2	EXTj/9126	SW-846 3550B
J2407489008	PC-24-1	EXTj/9126	SW-846 3550B

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Workorder: Phillippi Creek Dredging Study (J2407489)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCAj/14607 - SM 2540G			
J2407489001	PC-24-7		
J2407489002	PC-24-8		
J2407489003	PC-24-6		
J2407489004	PC-24-5		
J2407489005	PC-24-4		
J2407489006	PC-24-3		
J2407489007	PC-24-2		
J2407489008	PC-24-1		

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Address: 1293 Graham Farm Rd						Project Number:							
McCellanville, SC 29458						PO Number:							
Phone: 561-702-0768						FDEP Facility No:							
Fax:						FDEP Facility Addr:							
Contact: Lucy Thein						Special Instructions:							
Sampled By:													
Turn Around Time: Standard						Rush							
AEL Profile #: 77037						ADAPT EQUIS Other							
SAMPLE ID		SAMPLE DESCRIPTION				Grab Comp		SAMPLING DATE TIME		MATRIX		NO. COUNT	
PC224-7		SEDIMENT COMP				Comp		5/21 0844		SO		1	
PC224-8		SEDIMENT				Comp		5/21 0917		SO		1	
PC224-6		SEDIMENT				Comp		5/21 0934		SO		1	
PC224-5		SEDIMENT				Comp		5/21 0955		SO		1	
PC224-4		SEDIMENT				Comp		5/21 1029		SO		1	
PC224-3		SEDIMENT				Comp		5/21 1048		SO		1	
PC224-2		SEDIMENT				Comp		5/21 1110		SO		1	
PC224-1		SEDIMENT				Comp		5/21 1135		SO		1	
ANALYSIS REQUIRED													
BOTTLE SIZE & TYPE													
8 oz Jar													
PAH by 8270SIM													
TRPH by FLPOR													
8081/8082													
Al,As,Ba,Cd,Cr,Cu,Pb,Hg,Ni,Se,Ag,Zn													
LABORATORY I.D. NUMBER													

Client: Athena TechnologiesProject name: Phillippi Creek Dredging

Date/Time

Rcvd: 5:22:24 1021

Log-In request number:

52407489Received by: Tippini CampbellCompleted by: SC**Cooler/Shipping Information:**Courier: ☐ AEL ☒ Client ☐ UPS ☐ Blue Streak ☐ FedEx ☐ AES ☐ ASAP ☐ Other (describe): _____Type: ☒ Cooler ☐ Box ☐ Other (describe): _____

Cooler temperature: Identify the cooler and document the temperature blank or ice water measurement

Cooler ID	1				
Temp (°C)	0.9				
Temp taken from	☒ Sample Bottle ☐ Cooler	☐ Sample Bottle ☐ Cooler	☐ Sample Bottle ☐ Cooler	☐ Sample Bottle ☐ Cooler	☐ Sample Bottle ☐ Cooler
Temp measured with	☒ IR gun S/N 9333779 ☐ Thermometer (enter ID): <u>9A</u>	☐ IR gun S/N 9333779 ☐ Thermometer (enter ID):	☐ IR gun S/N 9333779 ☐ Thermometer (enter ID):	☐ IR gun S/N 9333779 ☐ Thermometer (enter ID):	☐ IR gun S/N 9333779 ☐ Thermometer (enter ID):

Other Information:

Any discrepancies should be explained in the "Comments" section below.

CHECKLIST	YES	NO	NA
1. Were custody seals on shipping container(s) intact?	✓		
2. Were custody papers properly included with samples?	✓		
3. Were custody papers properly filled out (ink, signed, match labels)?	✓		
4. Did all bottles arrive in good condition (unbroken)?	✓		
5. Were all bottle labels complete (sample #, date, signed, analysis, preservatives)?	✓		
6. Did the sample labels agree with the chain of custody?	✓		
7. Were correct bottles used for the tests indicated?	✓		
8. Were proper sample preservation techniques indicated on the label?	✓		
9. Were samples received within holding times?	✓		
10. Were all VOA vials free of the presence of air bubbles?	✓		✓
11. Have all Soil VOA Vials and Encores been placed in a freezer within 48 hours of collection?	✓		
12. Were samples in direct contact with wet ice? If "No," check one: ☐ NO ICE ☐ BLUE ICE	✓		
13. Was the cooler temperature less than 6°C?	✓		
14. Where pH preservation is required, are sample pHs checked and any anomalies recorded by Sample control? Are all <2 or >10? Note: VOA samples are checked by laboratory analysts.	✓		
15. Was sufficient sample volume provided to perform all tests?	✓		
16. If for Bacteriological testing, were containers supplied by AEL? (See QA officer if answer is no)			✓
17. Were all sample containers provided by AEL? (Other than Bacteriological)	✓		
18. Were samples accepted into the laboratory?	✓		
19. When necessary to split samples into other bottles, is it noted in the comments?	✓		
20. Where Encores received and if so, how many?			✓

Comments: (Note all sample(s) and container (s) with a "No" checklist response in this comment section)